

TTM 20528 Project

INITIAL STUDY /MITIGATED
NEGATIVE DECLARATION

Prepared for:
City of Redlands



Prepared by:
Michael Baker International, Inc.

Michael Baker
INTERNATIONAL

October 2023

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

TTM 20528 Pioneer Tract Project

Lead Agency:

**CITY OF REDLANDS
DEVELOPMENT SERVICES**

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October 2023

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1.0 Introduction

The TTM 20528 Pioneer Tract Project (herein referenced as the “project”) proposes the construction of 117 two-story single-family motor court homes on a 14.62-acre site within the City of Redlands. The site is located at the northeast corner of West Pioneer Avenue and State Route 210 (Assessor Parcel Numbers [APNs] 0167-061-01 and 0167-061-03). Refer to [Section 2.0, Project Description](#), for more detail. Following a preliminary review of the proposed project, the City of Redlands (City) has determined that it is subject to the guidelines and statutes of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 Statutory Authority and Requirements

In accordance with CEQA (Pub. Resources Code §§ 21000 *et seq.*) and pursuant to CEQA Guidelines (14 Cal. Code Regs., §§ Section 15000 *et seq.*) the City, acting in the capacity of lead agency under CEQA as defined in CEQA Guidelines Section 15367 (Lead Agency), is required by CEQA Guidelines Section 15063 to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration or Mitigated Negative Declaration for that project. Such a determination can be made only if “[t]here is no substantial evidence, in light of the whole record before the [L]ead [A]gency” that such impacts may occur (Pub. Resources Code Section 21080(c)(1)).

The environmental documentation outlined above, which is ultimately determined by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period. During this review, comments on the document relative to environmental issues should be addressed to the City in writing. Following review of any written comments received, the City will consider these comments as a part of the project’s environmental review and will include them with the Initial Study documentation for consideration by the City’s decision-makers.

1.2 Purpose

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;



- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 Consultation

As soon as a Lead Agency (in this case, the City of Redlands) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with “Responsible Agencies” and “Trustee Agencies” as defined in CEQA Guidelines Sections 15381 and 15386 respectively, that are responsible for resources affected by the project, to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Other anticipated public agencies whose approval is required for the project include the Santa Ana Regional Water Quality Control Board for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings.

1.4 Incorporation by Reference

The following documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. The documents are available for review on the City of Redlands website (<https://www.cityofredlands.org/planning>) and at the City’s Development Services Department located at City Hall at 35 Cajon Street, Suite 20, Redlands, CA 92373.

- City of Redlands General Plan 2035 (adopted December 2017). The *City of Redlands General Plan 2035* (General Plan) sets forth conditions to guide development in the city for years to come. It contains both a statement of the community’s vision of its long-term development as well as the policies to support that vision by guiding the physical growth of the city. It includes policies to guide decision-making related to development, housing, transportation, environmental quality, public services, parks, and open spaces. The General Plan is organized around the following “Themes”: Distinctive City, Prosperous Economy, Livable Community, Connected City, Vital Environment, Healthy Community, Sustainable Community. State law requires all general plans to include seven mandatory elements: land use, circulation, conservation, open space, safety, noise, and housing. The City of Redlands General Plan includes six of the seven elements required by California State law: land use, circulation, conservation, open space, safety, and noise. Because the seventh element, housing, is required by State law to be updated more frequently than the General Plan, it is published as a separate document. The Housing Element was last updated and integrated into the General Plan on February 1, 2022. All actions relating to zoning, subdivision approval, housing allocations, and capital improvements must be consistent with the General Plan.
- City of Redlands General Plan Environmental Impact Report (adopted July 2017). The *City of Redlands General Plan Environmental Impact Report* (General Plan EIR) is intended to provide decision-makers and the public with information concerning the environmental effects of implementation of the General Plan. The General Plan EIR includes background data, analyzes potential environmental impacts, identifies General Plan policies and implementation plans that serve as mitigation, and identifies additional mitigation measures to reduce potentially significant effects due to implementation of the General Plan. The General Plan EIR determined that General Plan implementation would result in significant unavoidable environmental impacts in the following topic areas: Agricultural Resources, Air Quality, and Transportation.
- Redlands Municipal Code (current through Ordinance 2953, passed January 17, 2023). The *Redlands Municipal Code* (Municipal Code) provides regulations for governmental operations, development,



infrastructure, public health and safety, and business operations within the City. Municipal Code Title 18, *Zoning regulations* (Land Use Zoning Ordinance), is established to promote the public health, safety, peace, comfort, convenience, prosperity, and welfare of the City and its inhabitants. The Land Use Zoning Ordinance regulates the use of buildings, structures, and land for residential, commercial, industrial, and institutional purposes; regulates location, height, bulk, and area covered by buildings and structures; and controls lot size, yards, intensity of land use, signs, and off-street parking.

- *East Valley Corridor Specific Plan (Last Amended on April 19, 2022)*: The East Valley Corridor Specific Plan was adopted to provide a guide for the growth and development of the East Valley Corridor. Among the subjects addressed by the Specific Plan are the locations of various land uses; development standards for buildings and facilities; regulation of land use in areas affected by safety hazards; location and capacity of circulation/ transportation systems and facilities; standards for building and population density; location and capacity of water supply, sewerage and stormwater drainage facilities; and design guidelines and requirements for the planning area as a whole as well as for specific development sites.

- *Bergamot Specific Plan (Adopted October 5, 2021)*: The Bergamot Specific Plan No. 64 was adopted to provide the framework and property guidelines for the design and development of a master planned residential community in conformance with the goals and objectives of the City of Redlands General Plan. The Specific Plan was written and prepared to focus upon design solutions, regulations and development standards specifically tailored to the project site while insuring a commitment to the ordinances of the City of Redlands in both spirit and intent. The Specific Plan proposes development of a residential master plan in such a manner so as to produce a cohesive, unified development sensitive to the project site and surrounding area through the integration of special buffer treatments, architectural theming, placement of structure, and the integration of passive and active open space and recreational uses. The Specific Plan includes design guidelines and development standards intended provide the City of Redlands with a desirable residential neighborhood with abundant amenities and housing opportunities.



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2.0 Project Description

2.1 Project Location

The City is located in the southwestern portion of the County of San Bernardino; refer to Exhibit 1, Regional Vicinity. Interstate 10 (I-10) bisects the City in an east-west orientation, and State Route 210 (SR-210) traverses the City's northern portion in a north-south orientation. The project site is 14.62 gross acres (11.45 net acres) and is located in the northern portion of the City at Assessor Parcel Numbers (APNs) 0167-061-01 and 0167-061-03; refer to Exhibit 2, Site Vicinity. Specifically, the project site is located at the northeast corner of West Pioneer Avenue and SR-210. Regional access to the project site is provided via I-10 and SR-210. Local access is provided via West Pioneer Avenue and Domestic Avenue.

2.2 Environmental Setting

The project site consists of two undeveloped, vacant lots with disturbed, ruderal vegetation, as well as scattered trees and shrubs. An unimproved dirt road (West Domestic Avenue) is present on the northern portion of the site. Three wooden power poles with overhead lines are located along the southwest portion of the site. Foundations from a former agricultural residence are also present on the site. The site was historically used for cultivated citrus groves, but is now fallow and no longer supports agricultural uses.

The project site has a relatively flat topography and slopes gently to the north. The elevation along the southern portion of the site is approximately 1,276 feet above mean sea level (amsl) and the elevation along the northern portion is approximately 1,267 feet amsl.

General Plan Land Use Designation and Zoning

The project site has a land use designation of Commercial/Industrial in the City of Redlands General Plan, and a zoning designation of Science Research Park within the East Valley Corridor Specific Plan (EV-SRP). The project would require a General Plan Amendment to change the site's designation to Medium Density Residential, which allows for densities of 8 to 15 dwelling units per acre (du/ac). The project would also require a Zone Change to Specific Plan No. 64 (Bergamot Specific Plan), and a Specific Plan Amendment to incorporate the project site in the Bergamot Specific Plan boundary. The Bergamot Specific Plan was adopted by the City on October 5, 2021. It was developed to produce a cohesive, unified development sensitive to the project site and surrounding area through the integration of special buffer treatments, architectural theming, placement of structures, and the integration of passive and active open space and recreational uses.¹

Surrounding Land Uses

Surrounding land uses include vacant, agricultural, and public/institutional uses. Specifically, land uses surrounding the site include:

- North: Domestic Avenue, undeveloped lots with citrus groves, and vacant land that is currently under construction bounds the site to the north. The area under construction is designated Low Density Residential within the City of Redlands' General Plan and zoned Specific Plan No. 64 (Bergamot Specific Plan). The citrus

¹ City of Redlands, *Bergamot Specific Plan*, adopted October 5, 2021.



grove has a land use designation of Commercial/Industrial in the City of Redlands General Plan, and a zoning designation of Science Research Park within the East Valley Corridor Specific Plan (EV-SRP).

- East: Citrus Valley High School bounds the project site to the east. The property containing Citrus Valley High School is designated Public/Institutional within the City of Redlands' General Plan and is located in the Science Research Park District of the East Valley Corridor Specific Plan (EV-SRP).
- Northeast: A parcel containing a citrus grove bounds the project site to the northeast. The parcel containing the citrus grove is designated Commercial/Industrial within the City of Redlands' General Plan and is located in the Science Research Park District of the East Valley Corridor Specific Plan (EV-SRP).
- South: West Pioneer Avenue and vacant lots bound the project site to the south. Areas to the south of the site are designated Commercial within the City of Redlands' General Plan and are located in the Special Development District of the East Valley Corridor Specific Plan (EV/SD).
- West: A concrete-lined flood control drainage, California Department of Transportation easement, and SR-210 bound the project site to the west.

2.3 Project Characteristics

Development Concept

The proposed project consists of the development of 117 two-story motor court homes distributed along two new public streets ("Street A" and "Street B") on a 14.62-acre site; refer to Exhibit 3, Conceptual Site Plan. The density of the project would be approximately 8 du/ac. Interior livable space would consist of three- and four-bedroom units ranging from 1,465 square feet to 2,125 square feet. The project proposes a maximum building height of approximately 26 feet. Individual lot sizes would range from 1,837 square feet to 3,337 square feet. Architectural styles would include Santa Barbara, Coastal, and Farmhouse.

The project would include nine open space lots, comprising a total area of 3.01 acres. Additional improvements include installation of a stormwater detention basin, a parking lot, a paved walking trail, a bocce ball court, and landscaping with shrubs, trees, and ground cover vegetation. Sidewalk, curb, and gutter would be installed along the project's frontages at West Pioneer Avenue and West Domestic Avenue. A noise attenuation wall ranging from 6-8 feet would be installed around the north, east, and south perimeters of the property.

Site Access

Access to the site would be provided via two entry points: one from West Pioneer Avenue and one from West Domestic Avenue. Access and circulation improvements would be designed and constructed consistent with City design and engineering standards; refer to Exhibit 3.

Landscaping

Ornamental water-efficient landscaping would be installed throughout the site, including front yards, in open space lots, and along the walking trail on the west side of the site. The total landscaped area would be 86,468 square feet, which is 13.6 percent of the total project site area. A conceptual landscape plan was developed for the project in accordance with the requirements of the Redlands Municipal Code Title 18, *Zoning Regulations*, Chapter 18.168, *Landscaping, Fences, Walls and Signs*. Planting materials would include a mix of trees (such as marina strawberry tree, purple orchid



tree, and netleaf hackleberry), shrubs (such as yellow bird of paradise, dwarf weeping bottlebrush, and coral rockrose), groundcover (such as pigeon point coyote brush, European grey sedge, and bearberry cotoneaster), and turf consisting of a drought tolerant Fescue blend; refer to Exhibit 4, Conceptual Landscape Plan.

Utilities and Services

The following utilities and services would serve the site:

- Water. The proposed development would be served by Redlands Municipal Utilities and Engineering for domestic (drinking) water supply services.
- Sewer. Redlands Municipal Utilities and Engineering provides wastewater/sanitary sewer service to the project area.
- Stormwater Drainage. Storm drains and the proposed underground detention basin would be operated and maintained by the City of Redlands through annexation into a Community Facilities District.
- Dry Utilities. The site would be served by Southern California Edison (SCE) for electricity services and the Southern California Gas Company (SoCalGas) for natural gas services.

2.4 Phasing/Construction

The project would involve construction activities associated with grading, building construction, paving, and architectural coating applications. Project construction would occur over approximately 26 months from mid-2025 through mid-2027. Land development would occur as a single phase and is anticipated to occur for approximately six (6) months, from July 2025 to December 2025. Building construction would occur as a single phase and is anticipated to occur for approximately 20 months, from January 2026 to September 2027. Other associated improvements (i.e., painting) would occur and would partially overlap with the construction phase.

Earthwork volumes are estimated at approximately 101,150 cubic yards of cut and 85,000 cubic yards of fill soil. In addition, 11,700 cubic yards of shrinkage and 2,700 cubic yards of subsidence are anticipated. This would result in approximately 1,250 cubic yards of export soil.

During project construction, equipment, vehicles, and materials would be stored within a designated staging area or areas on the project site. Although storage of these items could potentially be viewed from adjacent properties, storage would be temporary and would cease upon completion of construction.

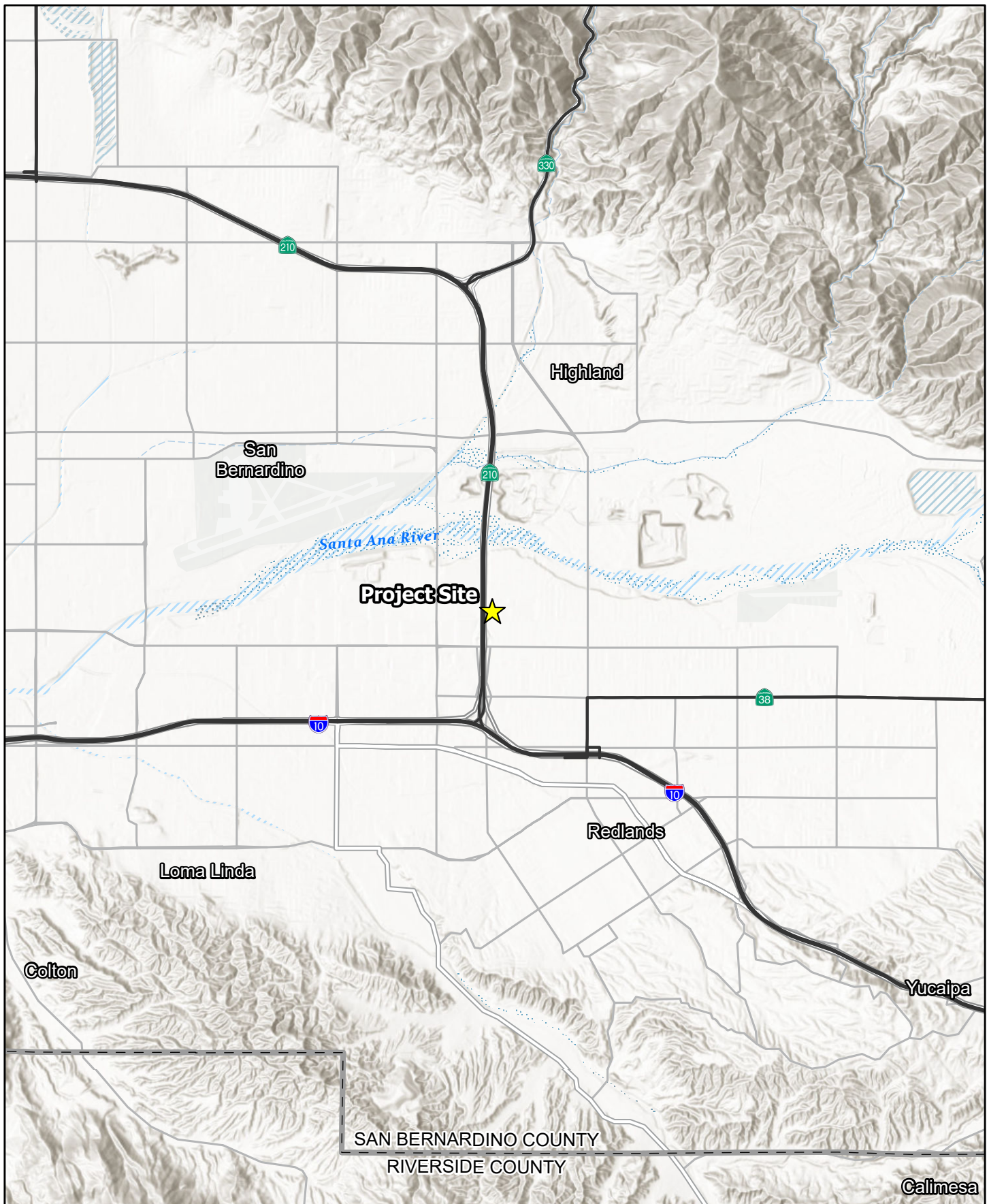


2.5 Agreements, Permits, and Approvals

The City, as Lead Agency, has discretionary authority over the proposed project, which requires the following discretionary approvals:

- CEQA Clearance;
- Zone Change;
- Specific Plan Amendment;
- General Plan Amendment;
- Tentative Tract Map;
- Water Quality Management Plan; and
- National Pollutant Discharge Elimination System (NPDES) Permit under the Santa Ana Regional Water Quality Control Board (Santa Ana RWQCB).

Other anticipated permits include a grading permit and building permit, as well as site plan approval from various approving bodies including but not limited to the Redlands Fire Department and Redlands Police Department.





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TTM 20528 PIONEER TRACT

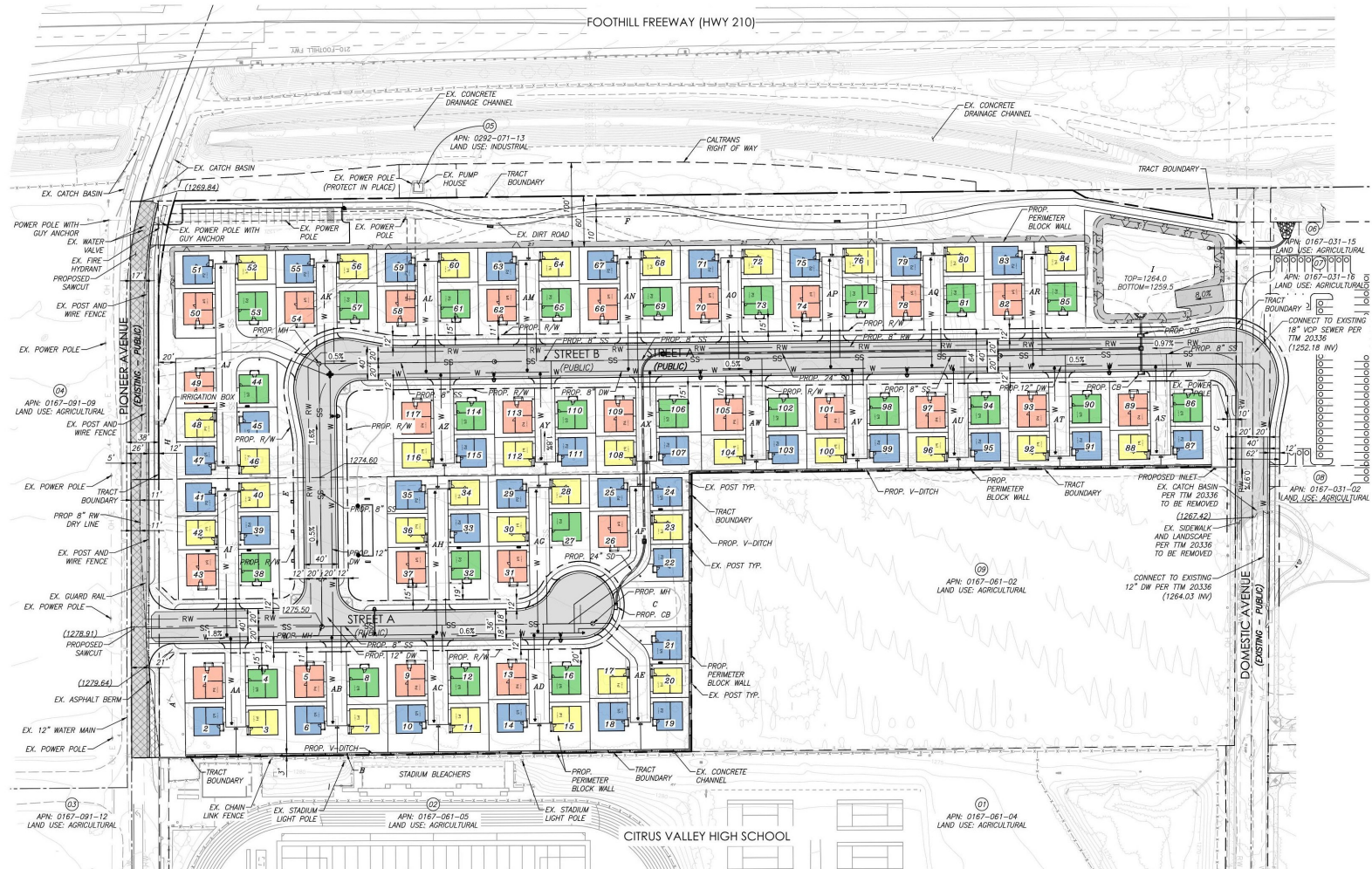




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PRELIMINARY PLOTTING STUDY TENTATIVE TRACT MAP NO. 20528

CITY OF REDLANDS,
IN THE COUNTY OF SAN BERNARDINO,
STATE OF CALIFORNIA



TTM 20528 PIONEER TRACT





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3.0 Initial Study Checklist

3.1 Background

1. **Project Title:**
TTM 20528 Pioneer Tract Project
2. **Lead Agency Name and Address:**
City of Redlands
35 Cajon Street
Redlands, CA 92373
3. **Contact Person and Phone Number:**
Ryan Murphy, Senior Planner
909-798-7555 ext. 7308
4. **Project Location:**
The project site (APNs 0167-061-01 and 0167-061-03) is located at the northeast corner of West Pioneer Avenue and State Route 210.
5. **Project Sponsor's Name and Address:**
MLC Holdings, Inc.
Johanna Crooker, AICP – Director of Entitlements
5 Peters Canyon Road, Suite 310, Irvine, CA 92606
6. **General Plan Designation:**
Commercial/Industrial
7. **Zoning:**
Industrial (EV-SRP)
8. **Description of Project:**
Refer to Section 2.3, *Project Characteristics*.
9. **Surrounding Land Uses and Setting:**
Surrounding land uses include vacant, agricultural, and public/institutional uses. Refer to Section 2.2, *Environmental Setting*.
10. **Other anticipated public agencies whose approval is required:**
Santa Ana Regional Water Quality Control Board
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**
In compliance with Assembly Bill (AB) 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project.



The letters were distributed by certified mail on November 22, 2022. The tribes had 30 days to respond to the City's request for consultation. Refer to Section 4.18, *Tribal Cultural Resources*, for additional information.

3.2 Environmental Factors Potentially Affected

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

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



3.3 Lead Agency Determination

On the basis of this initial evaluation:

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

☐

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

☒

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

☐

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

☐

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

☐

Signature:

A handwritten signature in blue ink, appearing to read "Ryan Murphy".

Title:

Senior Planner

Printed Name:

Ryan Murphy

Agency:

City of Redlands

Date:

October 3, 2023



3.4 Evaluation of Environmental Impacts

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

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

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines Appendix G and used by the City of Redlands in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to identify mitigation to avoid or minimize the impact.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- No Impact. The development will not have any measurable environmental impact on the environment.
- Less Than Significant Impact. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- Less Than Significant Impact With Mitigation Incorporated. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics will reduce these impacts to levels that are less than significant.
- Potentially Significant Impact. The development will have impacts which are considered significant and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures are required so that impacts may be avoided or reduced to insignificant levels.



4.0 Environmental Analysis

4.1 Aesthetics

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

a) *Have a substantial adverse effect on a scenic vista?*

Less Than Significant Impact. A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed.² Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated Federal and State lands, as well as local open space or recreational areas, may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape of nearby features.

Based on the General Plan EIR, scenic vistas within the City include scenic corridors and views to open spaces, canyonlands, hillsides, groves, and the San Bernardino Mountains. Scenic corridors are identified within Chapter 2, *Distinctive City*, of the General Plan. According to the General Plan, specific development standards have been adopted to protect scenic highways, drives, and historic streets. There are no designated scenic corridors within 2-miles of the project site. However, the General Plan identifies East Pioneer Avenue from River Bend Drive to Judson Street for future consideration as a scenic corridor. The identified segment of East Pioneer Avenue provides views of the San Bernardino Mountains to the east and north, as well as citrus groves along the south side of the road, and is located 1.65 miles east of the project site.

The project would not obstruct access to the corridor, nor would it degrade the quality or character of the views provided by the corridor. Views of the project site are not afforded from East Pioneer Avenue between River Bend Drive and Judson Street due to its location over 1.65 miles from this corridor, as well as intervening topography, structures, and vegetation. Thus, the project would not result in substantial adverse effect to the views provided by the corridor.

Views of the San Bernardino Mountains (located approximately 7-miles north) are available from the project site. However, based on the distance, as well as the presence of development in the project area, the project site is not located within the general viewshed of this scenic vista. The inclusion of the project within the area would be consistent

² A viewshed is the geographical area which is visible from a particular location.



with existing views.. As a result, implementation of the proposed project would not have a substantial adverse impact on a scenic vista. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

No Impact. According to the California Department of Transportation, there are no officially designated State scenic highways within the project vicinity.³ The nearest eligible highway is State Route 38 (SR-38), approximately 1.20-miles southeast of the project site. Views of the project site are not afforded from SR-38 due to intervening topography, structures, and vegetation. Thus, the project would not substantially damage scenic resources within a State scenic highway. Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less Than Significant Impact. The project site consists of an undeveloped, fallow lot composed of disturbed habitat that is dominated by ruderal/weedy, low-growing plant species, as well as scattered trees and shrubs. A dirt road is present on the site. The project site is located in an urbanized area of the City that supports commercial, public/institutional, and residential land uses. Adjacent to the east of the site is Citrus Valley High School, and adjacent to the west is SR-210, with industrial warehouses beyond the freeway to the west.

The project would allow for the development of 117 two-story motor court homes. The project would include installation of right-of-way improvements, including sidewalk and landscaping. The architectural design of the project would adhere to the requirements of the Bergamot Specific Plan, which outline a “cohesive, unified development sensitive to the project site and surrounding area through the integration of special buffer treatments, architectural theming, placement of structure, and the integration of passive and active open space and recreational uses.”⁴ While project implementation would change the visual quality of the project site and its surroundings, the proposed project would not degrade the visual quality of the project area because the project is consistent with the surrounding uses and its current zoning.

Further, the project’s design, including its architectural features, building materials, and landscaping would be reviewed and approved by the City during the development review process. The City would also have the ability to add conditions related to project aesthetics during the developmental review process if needed, prior to approval of the project. This process would verify that the project’s design is compatible with development in the surrounding vicinity and that it is consistent with applicable zoning regulations. As a result, implementation of the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

³ California Department of Transportation, *List of Eligible and Officially Designated State Scenic Highways*, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed May 16, 2023.

⁴ City of Redlands, *Bergamot Specific Plan*, https://www.cityofredlands.org/sites/main/files/file-attachments/bergamot-specific_plan.pdf?1646188068, adopted October 5, 2021.



d) **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Less Than Significant Impact. Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprising highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point source lighting that contrasts with existing low ambient light conditions.

Project construction could involve temporary glare impacts as a result of construction equipment and materials. Although there may be construction equipment and materials that produce glare, such as side mirrors or unpainted metal surfaces, the potential for glare would be short-term (hours) in duration because of the movement of either the equipment or angle of the sun. Further, pursuant to the City's Municipal Code Section 8.06.090, construction activities within the City are restricted to exclude the weekday hours of 6:00 M to 7:00 AM, as well as Saturdays, Sundays, or holidays. Although not proposed, any project-related nighttime construction activities would require City approval. Therefore, nighttime lighting effects from project construction are not expected to occur. Therefore, no adverse light or glare impacts to adjacent properties are anticipated to result from construction activities.

The proposed project would increase the amount of light in the area by directly adding new sources of illumination, including security and decorative lighting for houses and streetlights. However, although the project area would increase lighting within the area, compliance with City standards for exterior lighting for new developments, as established by the City's General Plan Action 2-A.35, would reduce this impact to a less than significant level.

In addition, streetlights are required to comply with design standards contained within *City of Redlands Public Works Department Standard Specifications and Detail Drawings for Design and Construction of Public Improvements* (January 2006), as adopted by the City, which establishes minimum design standards for streetlights to ensure public safety and minimize public nuisance. Additionally, due to the nature of the project, it is not anticipated that the proposed uses would result in a new source of substantial glare. The project as proposed would conform to applicable zoning requirements relative to building design to ensure that the project does not incorporate surfaces or materials with reflective properties that would have the potential to result in adverse glare effects. With adherence to the City's design standards, adverse effects associated with light trespass and/or glare would be less than significant.

Mitigation Measures: No mitigation measures are required.



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4.2 Agriculture and Forestry Resources

<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			✓	
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			✓	

This section is primarily based upon the *Land Evaluation and Site Assessment Model Letter Report for the Song and Emm Properties, City of Redlands, San Bernardino County, California* (LESA), prepared by FirstCarbon Solutions, dated April 20, 2022; refer to [Appendix A, LESA](#).

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Less Than Significant Impact. The project site is currently vacant and has not been graded. A Land Evaluation and Site Assessment (LESA) was prepared for the project site by FirstCarbon Solutions to assess whether development of the proposed project would have a significant impact on loss of Important Farmland; refer to [Appendix A, LESA](#). According to the LESA, the project site contains 14.45-acres of Grazing Land, 0.09-acre of Prime Farmland, 0.05-acre of Urban Built-Up Land, and 0.02-acre of Farmland of Statewide Importance.



The LESA Model is divided into two components: Land Evaluation and Site Assessment. Various existing conditions are identified and given a weighted factor which in part reflects the importance of such conditions in determining the value of a site as an agricultural resource. The Land Evaluation model considers land capability (soils) and Storie Index rating (agricultural value of the soil). The Site Assessment model considers project size, water availability, presence of surrounding agricultural lands, and protected resources (Williamson Act Contracts). As indicated in Appendix A, the project site yields a LESA Model score of 62.3. For projects that score between 60 and 79 points, LESA Model significance criteria indicates that this is a significant impact unless either the Land Evaluation or Site Assessment sub-scores are less than 20 points, as such a score would indicate a lesser potential for on-site resources to have high agricultural value (i.e., a site may score higher in one model versus the other, depending on the conditions being evaluated). In this case, the Land Evaluation sub-score is 45.1 points, but the Site Assessment sub-score is 17.2 points. As the Site Assessment score is below 20 points, based on LESA model significance criteria, the proposed project's conversion of agricultural land to nonagricultural use is not considered significant for the purposes of CEQA. Impacts would be less than significant in this regard.

In addition, according to the City's General Plan 2035 EIR, the farmland within the City is "mainly located where non-contiguous agricultural uses are interspersed with more intensive uses, such as in the East Valley Corridor Specific Plan area." According to the East Valley Corridor Specific Plan, the project site is located in East Valley/Special Development District (EV/SD), which permits uses from the General Commercial, Commercial Industrial, Administrative Professional, Public Institutional, and Open Space Districts subject to approval of a Planned Development application, including agricultural uses. The purpose of the EV/SD is, "to provide an alternative, more flexible site planning process which encourages creative and imaginative planning of administrative professional, commercial or industrial developments, or a mixture of such uses." Although the project site contains some areas designated as Prime Farmland and Farmland of Statewide Importance, impacts would be less than significant because the project is consistent with the General Plan 2035 and East Valley Corridor Specific Plan that have both addressed potential impacts to agriculture resources into their respective analysis. Therefore, impacts to protected farmlands are considered less than significant.

Mitigation Measures: No mitigation measures are required.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. Based on the LESA prepared for the project, the project site is not currently under a Williamson Act Contract; refer to [Appendix A](#). Additionally, the project site is not zoned for agricultural use. Thus, project implementation would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur.

Mitigation Measures: No mitigation measures are required.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

No Impact. The project site is not occupied or used for forest land or timberland. Further, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned timberland production. No impact would occur.

Mitigation Measures: No mitigation measures are required.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. Refer to Response 4.2(c). No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.



- e) *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

Less Than Significant Impact. Refer to Responses 4.2(a) through 4.2(d). Less than significant impacts would occur.

Mitigation Measures: No mitigation measures are required.



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4.3 Air Quality

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

This section is primarily based upon Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results.

a) **Conflict with or obstruct implementation of the applicable air quality plan?**

Less Than Significant Impact The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). In order to reduce emissions, the SCAQMD adopted the 2022 Air Quality Management Plan (2022 AQMP) which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and Federal air quality standards. The AQMP is a regional and multi-agency effort including the SCAQMD, California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the U.S. Environmental Protection Agency (EPA).

The 2022 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants, to also have less than significant cumulative impacts.

Criteria for determining consistency with the AQMP are defined by the following indicators:

Criterion 1:

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

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

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(c), localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}) would be less



than significant during project construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.⁵

b) *Would the project cause or contribute to new air quality violations?*

As discussed in Response 4.3(b), the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

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

The proposed project would result in less than significant impacts with regard to regional and localized concentrations during project construction and operations; refer to Responses 4.3(b) and 4.3(c). As such, the project would not delay the timely attainment of air quality standards or 2022 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2022 AQMP. Determining whether a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

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

Growth projections included in the 2022 AQMP form the basis for the projections of air pollutant emissions and are based on general plan land use designations and SCAG's 2020-2045 RTP/SCS demographics forecasts. The population, housing, and employment forecasts within the 2020-2045 RTP/SCS are based on local general plans as well as input from local governments, such as the City. The SCAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2022 AQMP.

The project site has a General Plan land use designation of Commercial/Industrial, and a zoning designation of Industrial (EV-SRP). The project would require a General Plan Amendment to change the site's designation to Medium Density Residential, which allows for densities of 8 to 15 dwelling units per acre (du/ac). The project would also require a Zone Change to Specific Plan No. 64 (Bergamot Specific Plan); and a Specific Plan Amendment to incorporate the project site in the Bergamot Specific Plan boundary. Additionally, the East Valley Corridor Specific Plan would also be amended to remove the project site from its Plan Boundary. The project would allow for the development of 117-unit two-story motor court home units on approximately 14.62 gross acres (11.45 net acres), representing a density of approximately 8 du/ac.⁶

⁵ Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

⁶ Density is calculated by dividing gross acreage (14.62 acres) from proposed number of units (117).



Although the project would require a General Plan Amendment, Zone Change, and Specific Plan Amendments, the project as analyzed aligns with the City of Redlands General Plan by fostering urban development and land use patterns that are consistent with the City's long-term vision for sustainable growth and efficient land utilization. By integrating the project site into the Bergamot Specific Plan, the project embraces the City's established planning framework and promotes a balanced blend of land uses that adhere to the overarching goals and policies of the City of Redlands General Plan. The proposed development type is also complementary to proposed residential uses to the north. Therefore, as the density of the project would be within the allowable density range of 8 to 15 du/ac within the Medium Density Residential zoning designation with the General Plan Amendment, the project would not conflict with the General Plan in this regard. Therefore, the project is consistent with the site's General Plan land use designation and zoning with the approval of the General Plan Amendment and Zone Change.

As discussed in Section 4.14, *Population and Housing*, the project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. The project would construct 117 two-story motor court home units. According to the California Department of Finance,⁷ the City's average household size is 2.64 persons per household. This would equate to approximately 309 new persons living within the City as a result of the proposed project.

According to the SCAG 2020-2045 RTP/SCS Demographics & Growth Forecast,⁸ the number of people living within the City is anticipated to reach 80,800 persons by 2045, representing a total increase of 11,300 persons between 2016 and 2045. SCAG's regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction. The project-related increase of 309 residents would contribute approximately 2.7 percent to the City's planned growth through 2045, and only 0.38 percent of the 2045 population anticipated for the City. As such, the proposed project is an allowed use under the site's existing land use and zoning designations. Additionally, as the SCAQMD has incorporated these same projections into the 2022 AQMP, it can be concluded that the proposed project would be consistent with the projections included in the 2022 AQMP. A less than significant impact would occur in this regard.

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

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction rules and measures identified by the SCAQMD would be required as identified in Responses 4.3(b) and 4.3(c). As such, the proposed project meets this 2022 AQMP consistency criterion.

c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. The existing Omnitrans bus stops are located less than one mile to the south of the project site. Further, in compliance with CALGreen Code, all single-family development projects would require installation of raceways to be electric vehicle (EV) capable.⁹ This project design feature would encourage and support the use of EVs within the proposed residential development. Therefore, the project would be consistent with the actions and strategies of the 2020-2045 RTP/SCS. In addition, as discussed above, the project would be consistent with the General Plan land use designation with the approval of General Plan Amendment. As such, the proposed project meets this AQMP consistency criterion.

⁷ California Department of Finance Demographic Research Unit, *Report E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021-2023*, Sacramento, California, May 2023.

⁸ Southern California Association of Governments, *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*, September 3, 2020.

⁹ A raceway is an enclosed conduit that forms a physical pathway for electrical wiring.



In conclusion, the determination of 2022 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Further, the proposed project's long-term influence on air quality in the Basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP.

Mitigation Measures: No mitigation measures are required.

b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?*

Less Than Significant Impact.

Criteria Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O₃). O₃ occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratosphere (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays. "Bad" O₃ is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_x, and sunlight to form; therefore, VOCs and NO_x are O₃ precursors. To reduce O₃ concentrations, it is necessary to control the emissions of these O₃ precursors. Significant O₃ formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O₃ concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O₃ in the upper atmosphere (stratosphere) protects the Earth from harmful ultraviolet radiation, high concentrations of ground-level O₃ (in the troposphere) can adversely affect the human respiratory system and other tissues. O₃ is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O₃. Short-term exposure (lasting for a few hours) to O₃ at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO₂). NO_x are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO₂ can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.



Coarse Particulate Matter (PM₁₀). PM₁₀ refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter (PM_{2.5}). Due to recent increased concerns over health impacts related to PM_{2.5}, both State and Federal PM_{2.5} standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new PM_{2.5} standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal PM_{2.5} standards. On June 20, 2002, the CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised and established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO₂). SO₂ is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. SO₂ is often used interchangeably with SO_x. Exposure of a few minutes to low levels of SO₂ can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O₃ to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, CO₂, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably (see below).

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming O₃ and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_x react in the presence of sunlight. ROG are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant.

Construction

The project involves construction activities associated with grading, building construction, paving, and architectural coating applications. The project would be constructed over approximately 26 months from mid-2025 through mid-2027.

Earthwork volumes are estimated at approximately 101,150 cubic yards of cut and 85,000 cubic yards of fill soil. In addition, 11,700 cubic yards of shrinkage and 2,700 cubic yards of subsidence are anticipated. An estimated 1,250 cubic yards of soil would be exported from the project site with proposed project grading activities.

Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2022.1 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site



characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to [Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results](#), for the CalEEMod outputs and results. [Table 4.3-1, Project-Generated Construction Emissions](#), presents the anticipated daily short-term construction emissions.

**Table 4.3-1
Project-Generated Construction Emissions**

Emissions Source	Pollutant (pounds/day) ^{1,2}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 1 Construction Emissions ²	3.29	28.6	26.4	0.07	3.75	2.09
Year 2 Construction Emissions ²	5.18	11.3	21.3	0.04	1.12	0.51
Year 3 Construction Emissions ²	5.14	10.9	21.1	0.04	1.08	0.48
Maximum Daily Emissions	5.18	28.6	26.4	0.07	3.75	2.09
SCAQMD Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Notes: 1. Emissions were calculated using CalEEMod version 2022.1. 2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.						
Source: Refer to Appendix B for assumptions used in this analysis.						

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM₁₀ generated as a part of fugitive dust emissions. PM₁₀ poses a serious health hazard alone or in combination with other pollutants. PM_{2.5} is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. PM_{2.5} is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_x and SO_x combining with ammonia. PM_{2.5} components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track-out and street sweeping requirements in accordance with Rule 1186/1186.1, etc.), to reduce PM₁₀ and PM_{2.5} concentrations. As depicted in [Table 4.3-1](#), total PM₁₀ and PM_{2.5} emissions would not exceed the SCAQMD thresholds



during construction. Thus, PM₁₀ and PM_{2.5} emissions impacts associated with project construction would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions (i.e., ROG, NO_x, CO, SO₂, PM₁₀, and PM_{2.5}) would not exceed the established SCAQMD thresholds for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O₃ precursors. In accordance with the methodology prescribed by the SCAQMD, ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. As required by SCAQMD Regulation XI, Rule 1113 – *Architectural Coating*, all architectural coatings for the proposed structures would comply with specifications on painting practices as well as regulation on the ROG content of paint.¹⁰ ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-1.

Total Daily Construction Emissions

As indicated in Table 4.3-1, criteria pollutant emissions during construction of the proposed project would not exceed the SCAQMD significance thresholds. Thus, total construction related air emissions would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*¹¹, serpentinite and ultramafic rocks are not known to occur within the project area. Thus, no impacts would occur in this regard.

¹⁰ South Coast Air Quality Management District, *Rule 1113 Architectural Coatings*, <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>, accessed July 10, 2023.

¹¹ Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000, https://www3.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf, accessed July 10, 2023.



Operations

Long-term operational air quality impacts consist of mobile source emissions generated from project-related traffic and emissions from stationary area and energy sources. Emissions associated with each source are detailed in [Table 4.3-2, Project-Generated Operational Emissions](#), and discussed below.

**Table 4.3-2
Project-Generated Operational Emissions**

Emissions Source	Pollutant (pounds/day) ¹					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Project Summer Emissions						
Area	5.96	1.81	7.39	0.01	0.14	0.14
Energy	0.05	0.85	0.36	0.01	0.07	0.07
Mobile	4.06	3.11	29.3	0.07	6.30	1.63
Total Summer Emissions²	10.1	5.77	37.0	0.09	6.52	1.85
SCAQMD Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Project Winter Emissions						
Area	5.38	1.75	0.74	0.01	0.14	0.14
Energy	0.05	0.85	0.36	0.01	0.07	0.07
Mobile	3.77	3.33	25.1	0.07	6.30	1.63
Total Winter Emissions²	9.20	5.93	26.2	0.08	6.51	1.84
SCAQMD Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Notes:						
1. Emissions were calculated using CalEEMod version 2022.1.						
2. The numbers may be slightly off due to rounding.						
Source: Refer to Appendix B for assumptions used in this analysis.						

Area Source Emissions

Area source emissions include those generated by architectural coatings, consumer products, and landscape maintenance equipment associated with the development of the proposed project. As shown in [Table 4.3-2](#), area source emissions during both summer and winter would not exceed established SCAQMD thresholds. Impacts would be less than significant in this regard.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Energy source emissions would not exceed established SCAQMD thresholds; refer to [Table 4.3-2](#). Impacts in this regard would be less than significant.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, SO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern (NO_x and ROG react with sunlight to form O₃



[photochemical smog], and wind currents readily transport SO_x, PM₁₀, and PM_{2.5}). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions were estimated using CalEEMod. According to the *Redlands TTM No. 20528 - Traffic Impact Study Scope of Work* prepared by Michael Baker International (dated May 16, 2023), the proposed project would generate 1,166 average daily trips, including 86 trips during the a.m. peak hour and 115 trips during the p.m. peak hour. As shown in Table 4.3-2, mobile source emissions for both summer and winter would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Total Operational Emissions

As shown in Table 4.3-2, the total operational emissions for both summer and winter would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O₃ precursors, VOCs, and NO_x, affect air quality on a regional scale. Health effects related to O₃ are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD (April 6, 2015) for *Sierra Club vs. County of Fresno*, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (April 13, 2015) for the *Sierra Club vs. County of Fresno*, SJVAPCD acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from O₃, as an example, is correlated with the increases in ambient level of O₃ in the air (concentration) that an individual person breathes. The SCAQMD's Brief of Amicus Curiae for *Sierra Club vs. County of Fresno* states that it would take a large amount of additional emissions to cause a modeled increase in ambient O₃ levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012AQMP, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O₃ levels at highest monitored sites by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O₃-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

Mitigation Measures: No mitigation measures are required.

c) *Expose sensitive receptors to substantial pollutant concentrations?*

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The CARB



has identified the following groups of individuals as those most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The closest sensitive receptor to the project site is the Citrus Valley High School adjacent to the east of the project site. The closest classrooms where students spend extended periods of time are located approximately 900 feet east of the project site.

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_x, PM_{2.5}, and/or PM₁₀. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The project site is located within Source Receptor Area (SRA) 24, Perris Valley.

Construction LST

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.¹² SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. The project would actively disturb approximately three acres per day during the grading phase of construction. Therefore, the LST thresholds for two-acre were conservatively utilized for the construction LST analysis. The closest sensitive receptors are Citrus Valley High School classrooms located approximately 900 feet (274 meters) to the east of the project boundary. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive receptor is located approximately 900 feet (274 meters) from the planned construction area, the LST values for 200-meter were used.

Table 4.3-3, *Localized Emissions Significance*, shows the localized unmitigated and mitigated construction-related emissions for NO_x, CO, PM₁₀, and PM_{2.5} compared to the LSTs for SRA 34. It is noted that the localized emissions presented in Table 4.3-3 are less than those in Table 4.3-1 because localized emissions include only on-site emissions (e.g., from construction equipment and fugitive dust) and do not include off-site emissions (e.g., from hauling activities). As shown in Table 4.3-3, the project's localized construction emissions would not exceed the LSTs for SRA 34. Therefore, localized significance impacts from project-related construction activities would be less than significant.

¹² The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.



**Table 4.3-3
Localized Emissions Significance**

Source ³	Pollutant (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Year 1 ¹	28.5	25.4	3.59	2.05
Year 2 ²	9.82	16.3	0.32	0.30
Year 3 ²	9.41	16.3	0.29	0.27
Maximum Daily Emissions	28.5	25.4	3.59	2.05
Localized Significance Threshold ^{3,4}	378	6,346	83	26
Thresholds Exceeded?	No	No	No	No
Notes: 1. Maximum on-site daily emissions occur during grading phase for all pollutants in Year 1. 2. Maximum on-site daily emissions occur during building construction phase for NO _x , CO, PM ₁₀ , and PM _{2.5} in Year 2 and Year 3. 3. Modeling assumptions include compliance with SCAQMD Rule 403 which requires properly maintaining mobile and other construction equipment; replacing ground cover in disturbed areas quickly; watering exposed surfaces three times daily; covering stockpiles with tarps; watering all haul roads twice daily; and limiting speeds on unpaved roads to 15 miles per hour. 4. The LST was determined using Appendix C of the SCAQMD's <i>Final Localized Significant Threshold Methodology</i> guidance document for pollutants NO _x , CO, PM ₁₀ , and PM _{2.5} . The LST was based on the anticipated daily acreage disturbance for construction (approximately two-acre as a conservative estimate; therefore, the two-acre threshold was used) and distance to sensitive receptor (25 meters) for SRA 24, Perris Valley.				
Source: Refer to Appendix B for assumptions used in this analysis.				

Operational LST

According to SCAQMD LST methodology, LSTs would apply to operational activities if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (i.e., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of such emissions, no long-term LST analysis is needed. Operational LST impacts would be less than significant in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (e.g., adversely affecting residents, school children, hospital patients, and the elderly).

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area under State standards. There has been a decline in CO emissions even though vehicle miles traveled (VMT) on U.S. urban and rural roads have increased; estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.¹³ Three major control programs have contributed to the reduced per-vehicle CO emissions, including exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

According to the SCAQMD *CEQA Air Quality Handbook*, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 parts per million (ppm), which is the 8-hour California ambient air quality standard. The closest monitoring station to the project site that monitors CO concentration is San Bernardino-4th Street station, which is located approximately 4.5 miles northwest of the project site. The maximum CO

¹³ U.S. Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed July 3, 2023.



concentration at San Bernardino-4th Street station was measured at 1.749 ppm in 2022.¹⁴ Given that the background CO concentration does not currently exceed 9.0 ppm, a CO hotspot would not occur at the project site. Therefore, CO hotspot impacts would be less than significant in this regard.

Health Impacts of On-Site Sensitive Receptors

The project would construct residential units in close proximity of the I-210 freeway. As such, future on-site residences could be potentially exposed to elevated levels of diesel particulate matter (DPM) emissions from the vehicles traveling on the I-210 freeway. DPM is identified by CARB as a toxic air contaminant (TAC) and could cause health risk impacts to future residences.

The project would require a Specific Plan Amendment to incorporate the project site in the Bergamot Specific Plan boundary. The project site is located to the south of the Bergamot Specific Plan site, and future residences of the project would be located at approximately the same distance from the I-210 freeway as the future residences of the Bergamot Specific Plan, and therefore would be exposed to similar levels of DPM emissions from the I-210 freeway. As stated in the *Bergamot Specific Plan Initial Study/Mitigated Negative Declaration*, prepared by Michael Baker International in May 2021, cancer risk, chronic non-cancer risk, and acute risk at the interior of the proposed homes of the Bergamot Specific Plan would be as high as 2.5 in one million, 0.00394, and 0.00066, respectively, which would be significantly below the SCAQMD thresholds of 10 in one million for cancer risk and 1.0 for chronic non-cancer and acute risks. As the future residences of the project would be exposed to similar levels of DPM emissions from the I-210 freeway as the future residences of the Bergamot Specific Plan, health impacts of the project's on-site sensitive receptors would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also be required to comply with the SCAQMD Regulation XI, *Rule 1113 – Architectural Coating*, which would minimize odor impacts from ROG emissions during architectural coating. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

¹⁴ California Air Resources Board, Air Quality and Meteorological Information, <https://www.arb.ca.gov/aqm2/aqdselect.php?tab=specialrpt>, accessed July 3, 2023.



4.4 Biological Resources

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

This section is primarily based upon the *Tentative Biological Resources Assessment and San Bernardino Kangaroo Rat Habitat Assessment, Song and Emm Properties Project, City of Redlands, San Bernardino County, California*, prepared by FirstCarbon Solutions, dated March 23, 2023. Refer to [Appendix C, Biological Resources Assessment](#).

- a) ***Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

Less Than Significant Impact With Mitigation Incorporated. A general biological resources survey was conducted on March 9, 2023 to document existing site conditions and identify whether existing vegetation communities provide suitable habitat for special-status plant or wildlife species; refer to [Appendix C](#). Prior to conducting the field survey, thorough literature reviews and records searches were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site.



Special-Status Plant Species

Based on review of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory, 19 special-status plant species have been recorded within 5-miles of the project site and an additional 14 species have been recorded between 5- and 10-miles from the project site. No special-status plant species were observed during the field survey conducted on the project site. The project site also does not appear to support protected vegetation communities, such as oak woodland or riparian forest. Furthermore, the project site is not within designated critical habitat for a special-status plant species. Therefore, construction and operation of the project would not result in impacts to special-status plant species or vegetation communities.

Special-Status Wildlife Species

A total of 42 special-status wildlife species were identified as occurring within 5 miles of the project site as recorded in the CNDDB and an additional 14 species were identified in the USFWS Information for Planning and Consultation database review. The potential for wildlife to occur on the project site was based on presence of suitable habitats and occurrences recorded in the CNDDB. Of the 42 special-status wildlife species identified, San Diegoan Tiger Whiptail, Southern California Legless Lizard, Cooper's Hawk, Burrowing Owl, California Horned Lark, Loggerhead Shrike, and San Bernardino Merriam's Kangaroo Rat have moderate potential to occur on the project site. Potential impacts to Cooper's Hawk, California Horned Lark, and Loggerhead Shrike would be reduced to less than significant with implementation of Mitigation Measure BIO-1 (Pre-Construction Survey for Nesting Birds). Potential impacts to Burrowing Owl would be reduced to less than significant with implementation of Mitigation Measure BIO-2 (Pre-Construction Survey for Burrowing Owl). Potential impacts to Southern California Legless Lizard and San Diegoan Tiger Whiptail would be reduced to less than significant with implementation of Mitigation Measure BIO-3 (Pre-Construction Survey for Special-Status Reptiles).

Although San Bernardino Merriam's Kangaroo Rat was determined to have a moderate potential for occurrence, the project site lacks habitat due to the tilled nature, lack of typical plant species and composition, and the position outside of alluvial action of the Santa Ana River. The small mammal burrows at the site were determined to be made by other species and lacked the characteristics of San Bernardino Merriam's Kangaroo Rat burrows. Furthermore, no individuals were observed and there were no signs of San Bernardino Merriam's Kangaroo Rat activity in the vicinity of the burrows (e.g., tail drag marks, scat). Therefore, the Biological Resource Assessment determined that San Bernardino Merriam's Kangaroo Rat is considered absent from the site. Further, no individuals would be able to populate the site in the future based on the site's proposed fencing plan. Therefore, no impacts would occur in this regard.

Special-Status Vegetation Communities

The CNDDB identified three sensitive natural communities that are known to occur within 5 miles of the project site: Southern Mixed Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Riversidian Alluvial Fan Sage Scrub. Seven sensitive natural communities, including Canyon Live Oak Ravine Forest, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub have been recorded in the CNDDB between 5 and 10 miles from the project site. However, the biological survey determined that none of these special-status vegetation communities occur within or adjacent to the project site. No impacts would occur in this regard.

Mitigation Measures:

BIO-1 Pre-Construction Survey for Nesting Birds. Ground-disturbing activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 31) to avoid violations of the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code § § 3503, 3503.5 and 3513.



If grading or construction activities are scheduled to occur during the bird breeding season (February 1 through August 31), a pre-construction survey for nesting birds shall be conducted by a qualified Designated Biologist who is experienced in the identification of avian species and conduction nesting bird surveys using appropriate survey methodology. The nest survey shall include the project site and any adjacent areas (i.e., construction site entrances and/or staging areas) where the project activities have the potential to cause nest failure. The pre-construction survey shall be conducted no more than three days prior to the start of ground-disturbing activities within the bird breeding season at the appropriate time of day/night, and during appropriate weather conditions. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds are found to be present, avoidance or minimization measures shall be undertaken to avoid potential project-related impacts. If a nest is suspected, but not confirmed, the Designated Biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations confirm that a nest does not exist or is inactive. If a nest is observed, but thought to be inactive, the Designated Biologist shall monitor the nest for one hour (four hours for raptors during the non-breeding season) prior to approaching the nest to determine status. The Designated Biologist shall use their best professional judgement regarding the monitoring period and whether approaching the nest is appropriate.

If an active avian nest confirmed, the Designated Biologist shall immediately establish a conservative avoidance buffer surrounding the nest based on their best professional judgement and experience. The Designated 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 Designated Biologist determines that such project activities may be causing an adverse reaction, the Designated 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 on-site qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.

BIO-2

Pre-Construction Surveys for Burrowing Owl. The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owls are present within 30 days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) 2012 guidelines. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. Survey for occupied burrows shall be completed within all construction areas and within 300 feet from the proposed project impact area (where possible and appropriate based on locations of barren or ruderal habitats).

If burrowing owls are detected during the pre-construction survey, the City shall consult with the CDFW and United States Fish and Wildlife Service (USFWS) to develop and implement a Burrowing Owl Mitigation Plan that includes mitigation measures outlined in CDFW (2012) guidelines and a Worker Environmental Awareness Program (WEAP).

BIO-3

Pre-Construction Surveys for Special-Status Reptiles. Prior to the issuance of a grading permit, the project applicant shall provide evidence that a qualified designated biologist has been retained



to perform a pre-construction survey of the entire project impact area, including any staging/laydown areas, for Southern California legless lizard and San Diegan tiger whiptail.

- If special-status reptiles are observed during construction activities, all work within 50 feet of the animal(s) will be stopped. At no time shall work occur within 50 feet of the animal without the Biological Monitor present. Any special-status wildlife species detected within the project impact area, including any staging/laydown areas, shall be allowed to move away on their own and shall not be captured or handled without authorization from the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).
- Avoidance of Entrapment: To prevent inadvertent entrapment of special-status reptiles during construction, all excavated, steep-walled holes or trenches may need to be covered at the close of each working day with plywood or other suitable material or provided with one or more escape ramps constructed of earth fill or wooden planks. The project applicant shall retain a qualified biologist to regularly inspect open trenches during the construction phase.
- Environmentally Sensitive Area Fencing: Areas that support sensitive habitats or reptile species shall be temporarily fenced to protect them from construction activities and traffic. The project applicant may need to retain a qualified designated biologist to monitor Environmentally Sensitive Areas during the construction phase.
- Worker Environmental Awareness Program: A Worker Environmental Awareness Program (WEAP) training shall be implemented by a qualified designated biologist to educate construction workers about the presence of special-status plant and reptile species on and near the project site and shall be administered to construction personnel prior to the initiation of ground-disturbing or vegetation/habitat altering activities.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less Than Significant Impact. According to the Biological Resources Assessment, no riparian habitat exists on the project site. However, there is a channelized drainage located west of the project site, which supports native riparian woodland species and eucalyptus trees that provide cover for dispersing wildlife species. The project applicant would not directly fill or remove the channel, however, project construction activities on the western side of the project site could cause sediment to enter the channelized drainage and result in indirect impacts to habitat. With implementation of regulatory requirements of water quality Best Management Practices (BMPs), impacts would be minimized. Water quality BMPs would include: obtaining a Construction General Permit from the Santa Ana Regional Water Quality Control Board, ensuring that Stormwater planning documents consistent with the requirements of the RWQCB (e.g., a Storm Water Pollution Prevention Plan [SWPPP] that complies with current National Pollution Discharge Effluent Standards [NPDES]), and additional BMPs to control the pollutants in stormwater runoff (e.g., silt fencing, straw wattles, etc.). The City of Redlands enforces application of water quality BMPs through Municipal Code Chapter 13.54, *Storm Drains*. Specifically, Municipal Code Section 13.54.180, *Best Management Practices*, requires that all new construction use BMPs to prevent the discharge of pollutants to the maximum extent practicable. According to the Municipal Code, examples of suitable BMPs may be found in the California Stormwater Quality Association (CASQA) *Stormwater Best Management Practice Handbook*, and the City of Redlands' *Storm Water Guidance Handbook*. With implementation of water quality BMPs, as enforced through Municipal Code Chapter 13.54, impacts to riparian habitat within the channel would be less than significant.

Mitigation Measures: No mitigation measures are required.



- 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?***

Less Than Significant Impact. According to the Biological Resources Assessment, no State or Federally protected wetlands were observed within the boundaries of the project site. However, there is a concrete drainage channel located to the west of the project site which is a potentially protected wetland feature. Project construction activities on the western side of the project site could cause sediment to enter the channelized drainage and result in indirect impacts to the drainage channel and water quality downstream, potentially including through spills and stormwater runoff during construction. With implementation of water quality BMPs described in Response 4.4(b) above, impacts to wetlands would be less than significant.

Mitigation Measures: No mitigation measures are required.

- d) ***Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Less Than Significant Impact. According to the Biological Resources Assessment, the drainage channel located west of the project site likely provides a movement corridor for a number of terrestrial wildlife species, including Virginia opossum, coyote, raccoon, striped skunk, several rodent species, and several lizard species, including San Diegan tiger whiptail. However, the project site itself does not serve as a wildlife movement corridor. As project construction and operation would not obstruct the corridor, the project would not interfere substantially with the movement of wildlife. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

- e) ***Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact. Municipal Code Chapter 12.52 outlines specific policies for tree preservation within the City. The City has policies and guidelines related to street trees on public City property but does not have City policies or ordinances related to trees on private property. Based on the Biological Resources Assessment, the row of lemon-scented gum trees along Pioneer Avenue may be located in a public right-of-way, which would qualify them as public trees. The project applicant shall be required to comply with all provisions outlined in the Municipal Code, which requires a permit to be issued by the City's Public Works director prior to the removal of any public tree. With adherence to the Municipal Code policies, no impact would occur.

Mitigation Measures: No mitigation measures are required.

- 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?***

No Impact. The project site is not located within a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.



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4.5 Cultural Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?		✓		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c. Disturb any human remains, including those interred outside of dedicated cemeteries?		✓		

This section is primarily based upon the *Phase I Cultural Resources Assessment, Song and Emm Properties Project, City of Redlands, San Bernardino County, California* (Cultural Resources Assessment), prepared by FirstCarbon Solutions, dated December 12, 2022; refer to [Appendix D, Cultural Resources Report](#).

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. A historic overview of the project area is provided in the Cultural Resources Assessment; refer to [Appendix D](#). To evaluate the project's potential to support historic resources, a records search request was submitted to the South Central Coastal Information Center (SCCIC). The search was conducted to identify previously recorded cultural resources and previously conducted cultural resources studies within a 0.5-mile radius of the project site. A review was also conducted of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for San Bernardino County. Cultural resources field surveys of the project site were conducted on August 21, 2021 and April 15, 2022. The surveys were conducted by walking parallel transects spaced approximately 15 meters apart across the entirety of the project site, where accessible. Digital photographs were taken at various points within the project boundaries and all soil exposures were carefully examined for evidence of cultural resources; refer to [Appendix D](#).

The SCCIC records search revealed that there have been thirty-one previous cultural resource studies conducted in the project area, none of which have taken place on the project site. The results of the records search indicate that there are twenty-two cultural resources (two prehistoric and twenty historic) located within a 0.5-mile radius of the project site, and no recorded cultural resources are located within the project site.

During the field surveys, the FirstCarbon Solutions archaeologists conducted inspections of the project site to identify evidence of historical resources, as defined under California law. Historical resources encompass a broad range of elements, including sites, buildings, structures, objects, areas, places, records, manuscripts, or anything deemed historically significant within the cultural history of California (14 Cal. Code Regs., §15064(a)). These resources fall into three categories according to CEQA: mandatory historical resources, presumptive historical resources, and property that may be found historical at the discretion of the lead agency (Pub. Resources Code, §21084.1).

The project site, upon inspection, was found to contain primarily grass and modern debris. No historical resources, as defined by California law, were identified within the boundaries of the project site during the surface inspection. It is important to note that while the surface inspection did not yield any historical resource findings, ground-disturbing activities in the future could potentially reveal historic-period artifacts or structural elements. To minimize potential



impacts resulting from inadvertent discoveries, the project proposes to implement Mitigation Measures CUL-1 through CUL-8.

With the implementation of Mitigation Measures CUL-1 through CUL-8, the project aims to effectively address the possibility of encountering historical resources during construction activities. This approach ensures that any impacts to historical resources, as defined by California law, would be reduced to a level deemed less than significant in compliance with CEQA requirements. The project is regulated by the California Code of Regulations (CCR), Title 14, Chapter 3, Section 15064.5(f), which provides that should archaeological materials be encountered during construction, all construction work should be halted and a qualified archaeologist consulted to determine the appropriate treatment of the discovery. The following mitigation has been incorporated to ensure the project would not cause a substantial adverse change in the significance of a historical resource, and a less than significant impact would occur, with mitigation.

Mitigation Measures:

- CUL-1 Native American Treatment Agreement.** Prior to the issuance of grading permits, the applicant shall enter into a Tribal Monitoring Agreement with the Morongo Band of Mission Indians for the project. The Tribal Monitor shall be on-site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind). The Tribal Monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources.
- CUL-2 Retention of Archaeologist.** Prior to any ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post replacement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), and prior to the issuance of grading permits, the Applicant shall retain a qualified archaeologist who meets the U.S. Secretary of the Interior Standards (SOI). The archaeologist shall be present during all ground-disturbing activities to identify any known or suspected archaeological and/or cultural resources. The archaeologist will conduct a Cultural Resource Sensitivity Training, in conjunction with the Tribe[s] Tribal Historic Preservation Officer (THPO), and/or designated Tribal Representative. The training session will focus on the archaeological and tribal cultural resources that may be encountered during ground-disturbing activities as well as the procedures to be followed in such an event.
- CUL-3 Cultural Resource Management Plan.** Prior to any ground-disturbing activities the project archaeologist shall develop a Cultural Resource Management Plan (CRMP) and/or Archaeological Monitoring and Treatment Plan (AMTP) to address the details, timing, and responsibilities of all archaeological and cultural resource activities that occur on the project site. This Plan shall be written in consultation with the consulting Tribe[s] and shall include the following: approved Mitigation Measures (MM)/Conditions of Approval (COA), contact information for all pertinent parties, parties' responsibilities, procedures for each MM or COA, and an overview of the project schedule.
- CUL-4 Pre-Grade Meeting.** The retained qualified archeologist and Consulting Tribe[s] representative shall attend the pre-grade meeting with the grading contractors to explain and coordinate the requirements of the monitoring plan.
- CUL-5 On-site Monitoring.** During all ground-disturbing activities the qualified archaeologist and the Native American monitor shall be on-site full-time. The frequency of inspections shall depend on the rate of



excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Native American monitoring will be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain cultural deposits. The qualified archaeologist, in consultation with the Native American monitor, shall be responsible for determining the duration and frequency of monitoring.

CUL-6 Inadvertent Discovery of Cultural Resources. In the event that previously unidentified cultural resources are unearthed during construction, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert and/or temporarily halt ground disturbance operations in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed.

If a potentially significant cultural resource(s) is discovered, work shall stop within a 60-foot perimeter of the discovery and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed. All work shall be diverted away from the vicinity of the find, so that the find can be evaluated by the qualified archaeologist and Tribal Monitor[s]. The archaeologist shall notify the Lead Agency and consulting Tribe[s] of said discovery. The qualified archaeologist, in consultation with the Lead Agency, the consulting Tribe[s], and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for the treatment and disposition of the Tribal Cultural Resource shall be made by the qualified archaeologist in consultation with the Tribe[s] and the Native American monitor[s] and be submitted to the Lead Agency for review and approval. Below are the possible treatments and dispositions of significant cultural resources in order of CEQA preference:

- A. Full avoidance.
- B. If avoidance is not feasible, Preservation in place.
- C. If Preservation in place is not feasible, all items shall be reburied in an area away from any future impacts and reside in a permanent conservation easement or Deed Restriction.
- D. If all other options are proven to be infeasible, data recovery through excavation and then curation in a Curation Facility that meets the Federal Curation Standards (CFR 79.1)

CUL-7 Inadvertent Discovery of Human Remains. The Morongo Band of Mission Indians requests the following specific conditions to be imposed in order to protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s].

- A. Should human remains and/or cremations be encountered on the surface or during any and all ground-disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected; project personnel/observers will be restricted. The County Coroner is to be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code §7050.5. and Public Resources Code (PRC) § 5097.98.
- B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC §7050.5.
- C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment



and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC §5097.98.

- D. If the Morongo Band of Mission Indians has been named the Most Likely Descendant (MLD), the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial will not be disclosed by any party and is exempt from the California Public Records Act (California Government Code § 6254[r]). Reburial location of human remains and/or cremations will be determined by the Tribe's Most Likely Descendant (MLD), the landowner, and the City Planning Department.

CUL-8 Final Report. The final report[s] created as a part of the project (AMTP, isolate records, site records, survey reports, testing reports, etc.) shall be submitted to the Lead Agency and Consulting Tribe[s] for review and comment. After approval of all parties, the final reports are to be submitted to the Eastern Information Center, and the Consulting Tribe[s]. **CUL-1 Qualified Archaeologist.** Prior to the issuance of a grading permits, the applicant shall obtain a project archaeologist that meets the Secretary of Interior's Professional Qualification Standards for Archaeology. The project archaeologist and the tribal monitor(s) shall perform an inspection of the site following grubbing and ground clearing, and prior to any grading or project-related ground disturbance. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the archaeologist.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

- b) ***Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?***

Less Than Significant Impact With Mitigation Incorporated. Prehistoric background information on the project area is provided in the Cultural Resources Assessment. As discussed above, the SCCIC records search revealed that 22 cultural resources (two prehistoric and twenty historic) have been located within a 0.5-mile radius of the project site, and no recorded cultural resources are located within the project site. Additionally, the pedestrian survey did not yield any cultural resources on the project site. Although findings were negative for cultural resources on the surface of the project site, the potential exists for ground-disturbing activities to expose previously unrecorded cultural resources. Based on the Cultural Resources Assessment, the site has not been previously surveyed for archaeological resources and its topography increases the possibility that subsurface archaeological resources may be encountered during project construction. To protect archaeological resources, Mitigation Measure CUL-1 through CUL-8 are proposed. Most notably, Mitigation Measure CUL-6 documents the steps to be taken in the event previously unidentified cultural resources are unearthed during construction. With implementation of Mitigation Measures CUL-1 through CUL-8, impacts to archaeological resources would be less than significant.

Mitigation Measures: Refer to Mitigation Measures CUL-1 through CUL-8.

- c) ***Disturb any human remains, including those interred outside of dedicated cemeteries?***

Less Than Significant Impact with Mitigation Incorporated. No evidence of human remains was identified as part of the Cultural Resources Report. Nonetheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5 through 7055 describe the general provisions for human remains; included as Mitigation Measure CUL-7.



Specifically, State Health and Safety Code Section 7050.5 requires if any human remains are accidentally discovered during excavation of a site, the County Coroner shall be notified of the find immediately, and no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. As required by State law, if the remains are determined to be Native American, the County Coroner shall notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC and shall have the opportunity to offer recommendations for the disposition of the remains. Following compliance with State Law and Mitigation Measure CUL-7, impacts related to the disturbance of human remains would be less than significant.

Mitigation Measures: Refer to Mitigation Measure CUL-7.



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4.6 Energy

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			✓	

This section is primarily based upon Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results.

State

California Building Energy Efficiency Standards (Title 24)

The 2022 California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as “Title 24,” became effective on January 1, 2023. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Title 24 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, and more.

California Green Building Standards (CALGreen)

The 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2023. CALGreen is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed CALGreen to meet the State’s landmark initiative Assembly Bill (AB) 32 goals, which established a comprehensive program of cost-effective reductions of greenhouse gas (GHG) emissions to 1990 levels by 2020. CALGreen was developed to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, and healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure.

California Public Utilities Commission Energy Efficiency Strategic Plan

The California Public Utilities Commission (CPUC) prepared an *Energy Efficiency Strategic Plan* (Strategic Plan) in September 2008 with the goal of promoting energy efficiency and a reduction in GHGs. In January 2011, a lighting chapter was adopted and added to the Strategic Plan. The Strategic Plan is California’s single roadmap to achieving maximum energy savings in the State between 2009 and 2020, and beyond 2020. The Strategic Plan contains the practical strategies and actions to attain significant Statewide energy savings, as a result of a year-long collaboration by energy experts, utilities, businesses, consumer groups, and governmental organizations in California, throughout the West, nationally and internationally. The plan includes four bold strategies:



1. All new residential construction in California will be zero net energy by 2020;
2. All new commercial construction in California will be zero net energy by 2030;
3. Heating, ventilation, and air condition (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
4. All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

California Energy Commission Integrated Energy Policy Report

In 2002, the California State Legislature adopted Senate Bill (SB) 1389, which requires the California Energy Commission (CEC) to develop an Integrated Energy Policy Report (IEPR) every two years. SB 1389 requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices, and use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

The CEC adopted the 2021 integrated energy policy report (2021 IEPR) Volume I, Volume II, and Volume IV on February 1, 2022 and Volume III on February 24, 2022.¹⁵ The 2021 IEPR provides information and policy recommendations on advancing a clean, reliable, and affordable energy system for all Californian.¹⁶ Volume I of the 2021 IEPR addresses actions needed to reduce the GHG emissions related to the buildings in which California live and work, with an emphasis on energy efficiency; Volume II examines actions needed to increase the reliability and resiliency of California's energy system; Volume III looks at the evolving role of gas in California's energy system; and Volume IV reports on California's energy demand outlook, including a forecast to 2035 and long-term energy demand scenarios of 2050. The 2021 IEPR builds on the goals and work in response to AB 758 (Energy: energy audit), SB 350 (Clean Energy and Pollution Reduction Act), AB 3232 (Zero-emissions buildings and sources of heat energy), and the 2019 IEPR to further a comprehensive approach toward decarbonizing buildings in a cost-effective and equitable manner. For the 2021 IEPR, the CEC extends the forecast timeframe to 15 years to coincide with several State goals that are planned for 2035 and improves methodologies to better quantify and predict the likelihood, severity, and duration of future extreme heat events.

Local

City of Redlands General Plan

The City's current General Plan (the *City of Redlands General Plan 2035* [General Plan]) is a policy document, or "blueprint" for future development, adopted by the City Council to guide future growth in Redlands. The award-winning General Plan is organized around Themes (or chapters), which include policies and actions to guide future development. The seven Themes in the General Plan include: Distinctive City, Prosperous Economy, Livable Community, Connected City, Vital Environment, Healthy Community, and Sustainable Community. The State-mandated elements of Land Use, Circulation, Open Space, Conservation, Health & Safety, Noise, and Housing are all integrated within the Themes noted above. For each topic under a theme, the General Plan establishes policies that consist of principles and actions that form the supporting policies for the goal. Principles are the fundamental tenets that support each theme's goal, and are statements of broad direction, philosophy, or standards to be achieved. Actions are statements that support the implementation of the principles. The General Plan primary discusses energy within

¹⁵ California Energy Commissions, *2021 Integrated Energy Policy Report*, <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>, accessed July 14, 2023.

¹⁶ California Energy Commissions, *Final 2021 Integrated Energy Policy Report Volume I Building Decarbonization*, February 2022.



the Sustainable Community Theme. The following goal, principals, and actions of the Sustainable Community chapter are applicable to the proposed project:

Goal: Serve as an environmental steward; ensure that residents enjoy clean air and water; make efficient use of energy, water, and land resources; and grow in a manner in which increased population does not negatively impact resources.

Principle 8-P.1: Promote energy efficiency and conservation technologies and practices that reduce the use and dependency of nonrenewable resources of energy by both City government and the community.

Action 8-A.2: Support San Bernardino County and San Bernardino Associated Governments (SANBAG) in implementation of their energy-related policies.

Action 8-A.8: Implement and enforce California Code of Regulations Title 24 building standards (parts 6 and 11) to improve energy efficiency in new or substantially remodeled construction. Consider implementing incentives for builders that exceed the standards included in Title 24 and recognize their achievements over the minimum standards.

Action 8-A.9: Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.

Action 8-A.10: Integrate trees and shade into the built environment, to mitigate issues such as stormwater runoff and the urban heat island effect.

Action 8-A.11: Further City efforts to be a model of energy conservation stewardship by:

- Continuing participation in SCE/SCG's Community Partnership program; Moving City electric load off-peak where practical;
- Partnering directly with large consumers of energy and encouraging and promoting their energy efficiency activities;
- Establishing energy efficiency and conservation baselines; and
- Reporting routinely on the progress of goals.

Action 8-A.16: Complete a comprehensive review of City codes and standards for applicability for energy and water efficiency/conservation measures and make changes to modify them accordingly.

Action 8-A.17: Set goals consistent with the State's Long-Term Energy Efficiency Strategic Plan. Design and implement programs and incentives to meet these goals in both private and public sector construction:

- All new residential construction in California will be zero net energy by 2020.
- All new commercial construction in California will be zero net energy by 2030.
- The heating, ventilation, and air conditioning (HVAC) industry will be improved to ensure optimal equipment performance; and all eligible low-income homes will be energy efficient by 2020.

Action 8-A.20: Support energy resiliency through a diversified system of energy sources including zero and near-zero emission technologies.

Action 8-A.39: Continue implementation and enforcement of the California Building and Energy codes to promote energy efficient building design and construction.



Action 8-A.40: Promote the Leadership in Energy and Environmental Design (LEED) certification program for the design, operation, and construction of high-performance green buildings.

Action 8-A.41: Promote energy conservation and retrofitting of existing buildings through:

- Encouraging point-of-sale residential energy and water efficiency audits. Provide information on upgrading requirements and/or incentives if necessary;
- Providing financial incentives and low-cost financing products and programs that encourage investment in energy efficiency and renewable energy within existing residential buildings; and
- Educating residents about the availability of free home energy audit programs and encouraging the implementation of audit findings.

Action 8-A.43: Decrease the need for artificial cooling, heating, and lighting, and promote outdoor lifestyles in Redlands' moderate climate by:

- Updating the Zoning Ordinance to provide for adequate private and common open spaces as part of multi-family developments; and
- Encouraging residential and office buildings to have windows that open to the outside in all habitable rooms and maximize the use of daylight.

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

Less Than Significant Impact. CEQA Guidelines Appendix F is an advisory document that assists in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. The analysis on Response 4.6(a) relies upon Appendix F of the CEQA Guidelines, which includes the following criteria to determine whether this threshold of significance is met:

- **Criterion 1:** The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- **Criterion 2:** The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- **Criterion 3:** The effects of the project on peak and base period demands for electricity and other forms of energy.
- **Criterion 4:** The degree to which the project complies with existing energy standards.
- **Criterion 5:** The effects of the project on energy resources.
- **Criterion 6:** The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Quantification of the project's energy usage is presented and addresses Criterion 1. The discussion on construction-related energy use focuses on Criteria 2, 4, and 5. The discussion on operational energy use is divided into transportation energy demand and building energy demand. The transportation energy demand analysis discusses Criteria 2, 4, and 6, and the building energy demand analysis discusses Criteria 2, 3, 4, and 5.

Project-Related Sources of Energy Consumption



This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips and off-road equipment associated with project construction and operations. The analysis of operational electricity and natural gas usage is based on the California Emissions Estimator Model version 2022.1 (CalEEMod) modeling results for the project. The project's estimated electricity and natural gas consumption is based primarily on CalEEMod's default settings for San Bernardino County, and consumption factors provided by the Southern California Edison (SCE) and the Southern California Gas Company (SoCalGas), the electricity and natural gas providers for the City and the project site. The results of the CalEEMod modeling are included in [Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results](#). The amount of operational fuel consumption was estimated using the CARB's EMFAC2021 website platform which provides projections for typical daily fuel usage in the County, and the project's annual vehicle miles traveled (VMT) outputs from CalEEMod. The estimated construction fuel consumption is based on the project's construction equipment list, timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.

The project's estimated energy consumption is summarized in [Table 4.6-1, Project and Countywide Energy Consumption](#). As shown in [Table 4.6-1](#), the project's energy usage would constitute an approximate 0.0054 percent increase over San Bernardino County's typical annual electricity consumption and an approximate 0.0060 percent increase over San Bernardino County's typical annual natural gas consumption. The project's construction off-road, construction on-road, and operational vehicle fuel consumption would increase the County's consumption by 0.3707 percent, 0.0043 percent, and 0.0158 percent, respectively (**CEQA Appendix F - Criterion 1**).

Table 4.6-1
Project and Countywide Energy Consumption

Energy Type	Project Annual Energy Consumption ¹	San Bernardino County Annual Energy Consumption ²	Percentage Increase Countywide ²
Electricity Consumption	811 MWh	16,180,811 MWh	0.0054%
Natural Gas Consumption	33,737 therms	561,360,617 therms	0.0060%
Fuel Consumption			
• Construction Off-road Consumption ³	68,009 gallons	18,347,432 gallons	0.3707%
• Construction On-road Consumption	48,257 gallons	1,130,700,651 gallons	0.0043%
• Operational Automotive Fuel Consumption ³	173,672 gallons	1,099,671,804 gallons	0.0158%
Notes:			
1. As modeled in CalEEMod version 2022.1.			
2. The project increases in electricity and natural gas consumption are compared to the total consumption in the County in 2021. The project increases in automotive fuel consumption are compared with the projected Countywide diesel fuel consumption in 2025 (start of construction), and gasoline fuel consumption in 2027 (operational year). San Bernardino County electricity consumption data source: California Energy Commission, <i>Electricity Consumption by County</i> , http://www.ecdms.energy.ca.gov/elecbycounty.aspx , accessed July 5, 2023. San Bernardino County natural gas consumption data source: California Energy Commission, <i>Gas Consumption by County</i> , http://www.ecdms.energy.ca.gov/gasbycounty.aspx , accessed July 5, 2023.			
3. Project fuel consumption calculated based on CalEEMod results. Countywide fuel consumption is from the CARB EMFAC2021 model.			
Refer to Appendix B for assumptions used in this analysis.			



Construction

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during grading, paving, building construction, and architectural coatings. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that heavy-duty diesel equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction (**CEQA Appendix F - Criterion 4**).

Substantial reductions in energy inputs for construction materials can be achieved by selecting green building materials composed of recycled materials that require less energy to produce than non-recycled materials.¹⁷ The integration of green building materials can help reduce environmental impacts associated with the extraction, transport, processing, fabrication, installation, reuse, recycling, and disposal of these building industry source materials.¹⁸ The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. As indicated in Table 4.6-1, the project's fuel consumption from off-road construction would be approximately 68,009 gallons, which would increase fuel use in the County by 0.3707 percent. Also indicated in Table 4.6-1, the project's fuel consumption from on-road construction would be approximately 48,257 gallons, which would increase fuel use in the County by 0.0043 percent. As such, construction would have a nominal effect on the local and regional energy supplies (**CEQA Appendix F - Criterion 2**). It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State (**CEQA Appendix F - Criterion 5**). Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. As such, a less than significant impact would occur in this regard.

Operations

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 4.6-1 provides an estimate of the daily fuel consumed by vehicles traveling to and from the project site. Based on the *Redlands TTM No. 20528 - Traffic Impact Study Scope of Work* prepared by Michael Baker International (dated May 16, 2023), the proposed project would generate 1,166 average daily trips. As indicated in Table 4.6-1, project operational daily trips are estimated to consume approximately 173,672 gallons of fuel

¹⁷ California Department of Resources Recycling and Recovery, *Green Building Materials*, <https://www.calrecycle.ca.gov/greenbuilding/materials#Material>, accessed July 5, 2023.

¹⁸ Ibid.



per year, which would increase the County's automotive fuel consumption by 0.0158 percent. The project does not propose any unusual features that would result in excessive long-term operational fuel consumption (**CEQA Appendix F - Criterion 2**).

The key drivers of transportation-related fuel consumption are job locations/commuting distance and many personal choices on when and where to drive for various purposes. Those factors are outside of the scope of the design of the proposed project. However, in compliance with CALGreen Code, all single-family development projects would require installation of raceways to be electric vehicle (EV) capable. This project design feature would encourage and support the use of EVs within the proposed residential development and thus reduce the petroleum fuel consumption (**CEQA Appendix F - Criterion 4 and Criterion 6**).

Therefore, fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. A less than significant impact would occur in this regard.

Building Energy Demand

The CEC developed 2020 to 2035 forecasts for energy consumption and peak demand in support of the 2021 IEPR for each of the major electricity and natural gas planning areas and the State based on the economic and demographic growth projections.¹⁹ CEC forecasts that the Statewide annual average growth rates of energy demand between 2021 and 2030 would be 1.3 percent to 2.3 percent for electricity and less than 0.1 percent to 0.8 percent increase for natural gas.²⁰ As shown in Table 4.6-1, operational energy consumption of the project would represent approximately 0.0054 percent increase in electricity consumption and 0.0060 percent increase in natural gas consumption over the current Countywide usage, which would be significantly below CEC's forecasts and the current Countywide usage. Therefore, the project would be consistent with the CEC's energy consumption forecasts and would not require additional energy capacity or supplies (**CEQA Appendix F - Criterion 2**). The project would also consume energy during the same time periods as other residential development. As a result, the project would not result in unique or more intensive peak or base period electricity demand (**CEQA Appendix F - Criterion 3**).

The project would be required to comply with the most current version of the Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. The project would install high efficiency lighting, energy efficient appliances, electrical infrastructure to support a future battery system, and solar photovoltaics panels. Compliance with the current 2022 Title 24 standards significantly reduces energy usage. The Title 24 Building Energy Efficiency Standards are updated every three years and become more stringent between each update. Compliance with 2022 Title 24 standards would ensure the project would be more energy efficient than existing buildings built under earlier versions of Title 24 standards (**CEQA Appendix F - Criterion 4**).

Furthermore, the electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures that new development projects will not result in the waste of the finite energy resources. The project would install solar photovoltaics panels and have electrical infrastructure to support

¹⁹ California Energy Commission, *Final 2021 Integrated Energy Policy Report Volume IV California Energy Demand Forecast*, February 2022. Annual average growth rates of electricity demand and natural gas per capita demand are shown in Figure 10 and Figure 14, respectively.

²⁰ Ibid.



future battery systems in compliance with 2022 Title 24 and CALGreen Code requirements (**CEQA Appendix F - Criterion 5**).

Therefore, the project would not cause wasteful, inefficient, and unnecessary consumption of building energy during project operation, or preempt future energy development or future energy conservation. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The City does not have an adopted renewable energy or energy efficiency plan. State and regional plans for renewable energy and energy efficiency include the California Energy Commission's Integrated Energy Policy Report (IEPR), California Public Utilities Commission's Energy Efficiency Strategic Plan (CPUC Strategic Plan), Title 24 standards, and CALGreen standards. The project would be required to comply with Title 24 and CALGreen standards and incorporates all applicable energy efficiency measures. As a project design feature, the project would exceed 2022 Title 24 standards by 10 percent. Energy efficiency measures typical for residential projects include installation of energy efficient windows, insulation, lighting, ventilation systems, and water efficient fixtures, conservation of roof areas for future installation of solar panels, as well as provision of electric vehicles charging infrastructure, among others. Compliance with and exceedance of Title 24 and CALGreen standards would also ensure the project's consistency with the CPUC Strategic Plan strategies and the IEPR building energy efficiency recommendations, which would ensure project conformance with the State's energy reduction goals. It should be noted that the project is consistent with the *City of Redlands Climate Action Plan*, which includes City-specific policies related to energy; refer to Section 4.8, Greenhouse Gas Emissions. As such, the proposed project would result in less than significant impacts associated with renewable energy or energy efficiency plans.

Mitigation Measures: No mitigation measures are required.



4.7 Geology and Soils

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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.				✓
2) Strong seismic ground shaking?			✓	
3) Seismic-related ground failure, including liquefaction?				✓
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			✓	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

This section is primarily based upon the *Due-Diligence/Feasibility Geotechnical Assessment, Approximately 10-Acre Property at 1160 W. Pioneer Avenue, East of 210 Freeway and North of Domestic Avenue, City of Redlands San Bernardino County, California* by Petra Geosciences, Inc., dated September 10, 2021 and the *Due-Diligence/Feasibility Geotechnical Assessment, 5-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-03, Site East of 1160 W. Pioneer Avenue, City of Redlands, San Bernardino County, California*, by Petra Geosciences, Inc., dated April 6, 2022. The reports are referred to collectively as the Geotechnical Evaluation in the following impact analysis, and are provided as [Appendix E1](#) and [E2, Geotechnical Evaluation](#).

a) ***Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

1) ***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.***

No Impact. The project site, like the rest of Southern California, is located within a seismically active margin between the North American and Pacific tectonic plates. Faults that have historically produced earthquakes or show evidence of movement within the past 11,000 years are known as “active faults.” According to the Geotechnical Evaluation, no



known active faults cross the project site, and the site is not located within an Alquist-Priolo Earthquake Fault Zone. Additionally, the project site is not located on or near any faults delineated by the City of Redlands General Plan. Therefore, the potential for fault rupture on-site is considered very low. No impact would occur.

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

Less Than Significant Impact. According to the Geotechnical Evaluation, the project site is located in a region of generally high seismicity (Southern California). As such, the project site is expected to experience strong ground motions from earthquakes on regional faults. However, active or potentially active faults are not known to exist on or in the immediate vicinity of the site. Design and construction of the project would be required to comply with the California Building Code (CBC), which outlines standards for structures to resist the effects of strong ground motion. Conformance with the CBC would ensure that impacts related to ground shaking are less than significant.

Mitigation Measures: No mitigation measures are required.

3) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction and seismically-induced settlement or ground failure is generally related to strong seismic shaking events where the groundwater occurs at shallow depth (generally within 50 feet of the ground surface) or where lands are underlain by loose, cohesionless deposits. Liquefaction typically results in the loss of shear strength of a soil, which occurs due to the increase of pore water pressure caused by the rearrangement of soil particles induced by shaking or vibration. During liquefaction, soil strata behave similarly to a heavy liquid.

Based on the San Bernardino County Geologic Hazard Map, the project site is not located within an identified liquefaction zone. Additionally, the boring samples collected for the Geotechnical Evaluation did not encounter groundwater to a depth of 56.5 feet below ground surface. Therefore, the liquefaction potential is considered to be low. No impact would occur in this regard.

4) Landslides?

No Impact. The project site and the surrounding properties are flat and not prone to slope instability hazards, such as landslides. Additionally, the project site is not located within an identified Landslide Susceptibility zone on the San Bernardino County Geologic Hazard Map. Thus, the potential for seismically-induced landslides is considered negligible. No impact would occur.

Mitigation Measures: No mitigation measures are required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The primary concern in regard to soil erosion or loss of topsoil would be from construction activities associated with the project, which could expose soils to short-term erosion by wind and water. Soil disturbance would temporarily occur during earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction, and grading. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project site. However, the project would be subject to compliance with the requirements set forth in the Santa Ana Regional Water Quality Control Board (RWQCB) Stormwater Quality Management Plan (SQMP) and the City's Water Quality Management Plan (WQMP) to reduce potential for soil erosion. The project would also employ Best Management Practices (BMPs) during



construction to control runoff from discharging from the site during project construction; refer to Section 4.10, Hydrology and Water Quality. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

- c) ***Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

Less Than Significant Impact. Refer to Responses 4.7(a)(3), 4.7(a)(4), and 4.7(d) for a discussion concerning liquefaction, landslides, and collapse (from expansive soils), respectively.

LATERAL SPREADING

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move down slope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be laterally continuous, unconstrained laterally, and free to move along sloping ground. According to the Geotechnical Evaluation, the project site is not subject to seismic-related ground failure (i.e., liquefaction). As a result, the lateral spread is anticipated to be negligible. No impact would occur in this regard.

SUBSIDENCE

According to the U.S. Geological Survey, land subsidence occurs when large amounts of groundwater have been withdrawn from certain types of rocks, such as fine-grained sediments. The rock compacts because the water is partly responsible for holding the ground up. When the water is withdrawn, the rocks fall in on itself. Events, other than the removal of groundwater, that can cause land subsidence include aquifer-system compaction, drainage of organic soils, underground mining, hydrocompaction, natural compaction, sinkholes, and thawing permafrost. According to the Geotechnical Evaluation, the soil on the project site has a low collapse potential. Therefore, subsidence would be unlikely. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

- 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?***

Less Than Significant Impact. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. According to the Geotechnical Evaluation, laboratory testing indicates that soils across the site have a very low expansion potential. As such, impacts due to expansive soil would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project. No impacts would occur.

Mitigation Measures: No mitigation measures are required.



f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Overall, ground-disturbing activities in previously undisturbed portions of the project site underlain by geologic units with a high paleontological sensitivity (i.e., Pleistocene to early Holocene alluvial deposits) may result in significant impacts to paleontological resources. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data.

According to the City's General Plan EIR, paleontological resources, including fossils, have been found in the Redlands area, and there is potential for paleontological finds to occur in the remaining unexcavated open space areas within the City. The project site consists of an undeveloped, vacant lot with disturbed, ruderal vegetation, as well as scattered trees and shrubs. As such, there is potential for paleontological resources to be discovered during grading and ground-disturbing activities. Given this possibility, Mitigation Measure CUL-2 would be required to mitigate potential impacts to paleontological resources. Mitigation Measure CUL-2 would require construction to halt in the event of an inadvertent discovery of a paleontological resource. The project Archaeologist shall be contacted, who would determine appropriate measures to mitigate impacts to the significance of the resource. With the implementation of Mitigation Measure CUL-2, impacts to historical resources would be less than significant.

Mitigation Measures: Refer to Mitigation Measure CUL-2.



4.8 Greenhouse Gas Emissions

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

This section is primarily based upon Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results.

GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 418 million metric tons of carbon dioxide equivalent (MTCO₂e) per year.²¹ Methane (CH₄) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO₂, CH₄, and nitrous oxide (N₂O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO₂ concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO₂ concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of April 2023, the highest monthly average concentration of CO₂ in the atmosphere was recorded at 421.39 ppm.²²

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO₂e)²³ concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

²¹ California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2020*, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed July 13, 2023.

²² Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, <https://scripps.ucsd.edu/programs/keelingcurve/>, accessed July 13, 2023.

²³ Carbon Dioxide Equivalent (CO₂e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.



REGULATORY FRAMEWORK

Federal

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO₂e)²⁴ concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 32. Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030.

CARB Scoping Plan. On December 11, 2008, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 million MTCO₂e under a business as usual (BAU)²⁵ scenario. This is a reduction of 42 million MTCO₂e, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

²⁴ Carbon Dioxide Equivalent (CO₂e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

²⁵ "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to <http://www.arb.ca.gov/cc/inventory/data/bau.htm>. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.



The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that “a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal.”

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was finalized in November 2017 and approved on December 14, 2017 and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan Update establishes a new Statewide emissions limit of 260 million MTCO₂e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

On December 15, 2022, CARB released the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), which identifies the strategies achieving carbon neutrality by 2045 or earlier. The 2022 Scoping Plan contains the GHG reductions, technology, and clean energy mandated by statutes. The 2022 Scoping Plan was developed to achieve carbon neutrality by 2045 through a substantial reduction in fossil fuel dependence, while at the same time increasing deployment of efficient non-combustion technologies and distribution of clean energy. The plan would also reduce emissions of short-lived climate pollutants (SLCPs) and would include mechanical CO₂ capture and sequestration actions, as well as emissions and sequestration from natural and working lands and nature-based strategies. Under 2022 Scoping Plan, by 2045, California aims to cut GHG emissions by 85 percent below 1990 levels, reduce smog-forming air pollution by 71 percent, reduce the demand for liquid petroleum by 94 percent compared to current usage, improve health and welfare, and create millions of new jobs. This plan also builds upon current and previous environmental justice efforts to integrate environmental justice directly into the plan, to ensure that all communities can reap the benefits of this transformational plan.

Local

2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy

On September 3, 2020, the Regional Council of the Southern California Association of Governments (SCAG) formally adopted the *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are to:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.



Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the State-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

City of Redlands General Plan 2035

The City's current General Plan (the Redlands General Plan 2035 [General Plan]) is a policy document, or "blueprint" for future development, adopted by the City Council to guide future growth in Redlands. The award-winning General Plan is organized around Themes (or chapters), which include policies and actions to guide future development. The seven Themes in the General Plan include: Distinctive City, Prosperous Economy, Livable Community, Connected City, Vital Environment, Healthy Community, and Sustainable Community. The State-mandated elements of Land Use, Circulation, Open Space, Conservation, Health & Safety, Noise, and Housing are all integrated within the Themes noted above. For each topic under a theme, the General Plan establishes policies that consist of principles and actions that form the supporting policies for the goal. Principles are the fundamental tenets that support each theme's goal, and are statements of broad direction, philosophy, or standards to be achieved. Actions are statements that support the implementation of the principles. The General Plan discusses GHG Reduction within the Sustainability Community Theme. The following goal and principals are applicable to the proposed project:

Sustainable Community

Goal: Serve as an environmental steward; ensure that residents enjoy clean air and water; make efficient use of energy, water, and land resources; and grow in a manner in which increased population does not negatively impact resources.

Principle 8-P.8: Promote sustainability by reducing the community's greenhouse gas (GHG) emissions and festering green development patterns- including buildings, sites, and landscapes.

Principle 8-P.9: Undertake initiatives to enhance sustainability by reducing the community's GHG emissions.

City of Redlands Climate Action Plan

The *City of Redlands Climate Action Plan (CAP)* is designed to reinforce the City's commitment to reducing GHG emissions and demonstrate how the City would comply with State of California's GHG emission reduction standards. As a qualified GHG reduction strategy, the CAP will also enable streamlined environmental review of future development projects, in accordance with the CEQA. The CAP reflects the City's commitment to the core values presented in the General Plan, and links elements of the plan with the goal of GHG reduction. The CAP has been prepared concurrently with the updated General Plan, reflecting the City's most current land use and transportation strategy, and GHG implications of various General Plan's goals and policies. The General Plan includes strategies such as transit-oriented and mixed-use development, integrated transportation and land use planning, promotion of bicycle and pedestrian movements, and parking and transportation demand management. It also includes goals and policies to promote energy efficiency, waste reduction, and resource conservation and recycling. These strategies, goals, and policies will result in GHG reduction compared to baseline trends. As a document adopted by the City of Redlands City Council, the CAP applies to the municipal limits of the City of Redlands. The CAP used a linear trajectory in emissions reductions between 2030 and 2050 to determine the 2035 target of 5 MTCO₂e per capita per year. The CAP also has a Year 2030 GHG emissions target of 6.0 MTCO₂e per capita per year.



THRESHOLDS OF SIGNIFICANCE

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions and gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7(c)). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (CEQA Guidelines Section 15064(h)(3)).^{26,27} A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.²⁸

As discussed above, the CAP set a Year 2030 GHG emissions target of 6 MTCO₂e per capita per year. Projects that start to operate before 2030 and do not exceed 6 MTCO₂e per capita per year are considered to be consistent with the CAP and determined to have a less than significant individual and cumulative impact for GHG emissions.

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant Impact. Project-related GHG emissions include emissions from direct and indirect sources. Direct project-related GHG emissions include emissions from construction activities, area sources, mobile sources, and refrigerants, while indirect sources include emissions from energy consumption, water demand, and solid waste generation. The CalEEMod version 2022.1 was used to calculate project-related GHG emissions. Table 4.8-1, Estimated Greenhouse Gas Emissions, presents the estimated CO₂, N₂O, and CH₄ emissions associated with the proposed project; refer to Appendix B, Air Quality/Greenhouse Gas/Energy Modeling Results for the CalEEMod outputs.

²⁶ California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, pp. 11-13, 14, 16, December 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf, accessed July 13, 2023.

²⁷ State of California Governor's Office of Planning and Research, *Transmittal of the Governor's Office of Planning and Research's Proposed SB97 CEQA Guidelines Amendments to the Natural Resources Agency*, April 13, 2009, <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf>, accessed July 13, 2023.

²⁸ 14 CCR Section 15064(h)(3).



Table 4.8-1
Estimated Greenhouse Gas Emissions

Source	CO ₂	CH ₄	N ₂ O	Refrigerants	CO ₂ e
	Metric Tons/year ¹				
Direct Emissions					
Construction (amortized over 30 years)	39.19	<0.01	<0.01	0.01	39.48
Area Source	27.16	<0.01	<0.01	0.00	27.19
Mobile Source	1,143.30	0.06	0.06	1.60	1,164.24
Refrigerants	0.00	0.00	0.00	0.27	0.27
Total Direct Emissions ²	1,209.65	0.07	0.06	1.88	1,231.18
Indirect Emissions					
Energy	391.65	0.03	<0.01	0.00	392.95
Solid Waste	10.08	1.01	0.00	0.00	35.27
Water Demand	11.73	0.16	<0.01	0.00	16.86
Total Indirect Emissions ²	413.46	1.20	0.01	0.00	445.08
Total Project-Related Emissions ²	1,676.26 MTCO ₂ e/year				
Emissions per Service Population per Year	5.4 MTCO ₂ e per year				
City of Redlands CAP Year 2030 Service Population Threshold Per Capita Per Year	6.0 MTCO ₂ e per year				
Exceed Threshold?	No				
Notes:					
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.					
2. Totals may be slightly off due to rounding.					
Refer to Appendix B, for detailed model input/output data.					

Direct Project-Related Sources of Greenhouse Gases

Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.²⁹ As shown in Table 4.8-1, the proposed project would result in 39.48 MTCO₂e per year construction emissions when amortized over 30 years (or a total of 1,184.39 MTCO₂e in 30 years).

Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. Project-related area sources include natural gas consumption for space heating and exhaust emissions from landscape maintenance equipment, such as lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the site. The project would directly result in 27.19 MTCO₂e per year from area source emissions; refer to Table 4.8-1.

Mobile Source. CalEEMod relies upon trip generation rates from the Redlands TTM No. 20528 - Traffic Impact Study Scope of Work prepared by Michael Baker International (dated May 16, 2023), and project specific land use data to calculate mobile source emissions. The proposed project would generate 1,166 average daily trips, including 86 trips during the a.m. peak hour and 115 trips during the p.m. peak hour. The project would result in approximately 1,164.24 MTCO₂e per year of mobile source generated GHG emissions; refer to Table 4.8-1.

²⁹ The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008).



Refrigerants. Refrigerants are substances used in equipment for air conditioning and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate. The proposed project would result in 0.27 MTCO₂e per year of GHG emissions from refrigerants; refer to [Table 4.8-1](#).

Indirect Project-Related Sources of Greenhouse Gases

Energy Consumption. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Southern California Edison (SCE) would provide electricity to the project site. The project would exceed 2022 Title 24 standards by 10 percent, which has been incorporated in CalEEMod. The project would indirectly result in 392.95 MTCO₂e per year due to energy consumption; refer to [Table 4.8-1](#).

Solid Waste. Solid waste associated with operations of the proposed project would result in 35.27 MTCO₂e per year; refer to [Table 4.8-1](#).

Water Demand. The project operations would result in a demand of approximately 6.57 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 16.86 MTCO₂e per year; refer to [Table 4.8-1](#).

Total Project-Related Sources of Greenhouse Gases

As shown in [Table 4.8-1](#), the total amount of project-related GHG emissions from direct and indirect sources combined would total 1,676.26 MTCO₂e per year. As discussed in [Section 4.14, *Population and Housing*](#), there would be approximately 309 new persons living within the City as a result of the proposed project. As such, the project's emissions would be 5.4 MTCO₂e per service population per year, which is below the CAP's Year 2030 6.0 MTCO₂e per service population per year target. As such, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- b) *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Less Than Significant Impact.

Consistency with Applicable GHG Plans, Policies, or Regulations

The GHG plan consistency for the project is based on the project's consistency with the CARB 2022 Scoping Plan, the SCAG 2020-2045 RTP/SCS, and applicable goals and policies from the City's General Plan. The 2022 Scoping Plan describes the approach the State will take to achieve carbon neutrality by 2045. The SCAG 2020-2045 RTP/SCS includes strategies for the region to reach the regional target of reducing GHGs from the transportation sector. The City's General Plan and CAP contain goals and policies that would help implement energy efficient measures and would subsequently reduce GHG emissions within the City.

Consistency with the 2022 CARB Scoping Plan

The 2022 Scoping Plan identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each AB 32 inventory sector. Provided in [Table 4.8-2](#),



Consistency with the 2022 Scoping Plan: AB 32 GHG Inventory Sectors, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions/strategies outlined in the 2022 Scoping Plan.

Table 4.8-2
Consistency with the 2022 Scoping Plan: AB 32 Inventory Sectors

Actions and Strategies		Project Consistency Analysis	
Smart Growth / Vehicles Miles Traveled (VMT)			
Reduce VMT per capita to 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045		Consistent. The project would require installation of raceways to be electric vehicle EV capable in accordance with the 2022 Title 24 standards and CALGreen Code, which would promote alternative mode of transportation to reduce VMT. Additionally, the project would be near public transportation stops. As such, the project would be consistent with this action.	
New Residential and Commercial Buildings			
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed Statewide by 2030		Consistent. The project is expected to consist of natural gas heating and/or cooking on-site. The City of Redlands has not adopted an ordinance or program limiting the use of natural gas for on-site cooking and/or heating. However, if adopted, the project would comply with the applicable goals or policies limiting the use of natural gas equipment in the future. Furthermore, the project would install high efficiency lighting and appliances. As such, the project would be consistent with this action.	
Construction Equipment			
Achieve 25% of energy demand electrified by 2030 and 75% electrified by 2045		Consistent. The City of Redlands has not adopted an ordinance or program requiring electricity-powered construction equipment. However, if adopted, the project would comply with the applicable goals or policies requiring the use of electric construction equipment in the future. As such, the project would be consistent with this action.	
Non-combustion Methane Emissions			
Divert 75% of organic waste from landfills by 2025		Consistent. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the Statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383. As such, the project would be consistent with this action.	
Source: California Air Resources Board. 2022 <i>Scoping Plan</i> . November 16, 2022.			

Consistency with the SCAG 2020-2045 RTP/SCS

On September 3, 2020, the Regional Council of SCAG formally adopted the 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS includes performance goals that were adopted to help focus future investments on the best-performing projects, as well as different strategies to preserve, maintain, and optimize the performance of the existing transportation system. The SCAG 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by eight percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. Five key SCS strategies are included in the 2020-2045 RTP/SCS to help the region meet its regional VMT and GHG reduction goals, as required by the State. Table 4.8-3, Consistency with the 2020-2045 RTP/SCS shows the project's consistency with these five strategies found within the 2020-2045 RTP/SCS. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.



Table 4.8-3
Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets • Plan for growth near transit investments and support implementation of first/last mile strategies • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) • Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)	Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.	Consistent. Although the project is not located in a HQTAs or TPA, the project is located adjacent to and with easy access to Interstate 210 freeway. Existing Omnitrans bus stops are located less than one mile to the south of the project site. Furthermore, the project site is in close proximity to existing commercial developments located southwest of the project site. Therefore, the project would focus growth near destinations and mobility options.
Promote Diverse Housing Choices		
• Preserve and rehabilitate affordable housing and prevent displacement • Identify funding opportunities for new workforce and affordable housing development • Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply • Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	PGA, Job Centers, HQTAs, NMA, TPAs, Livable Corridors, Green Region, Urban Greening.	Consistent. The project would involve development of a residential community near existing bus stops and commercial developments, which increases housing supply and supports reduction of GHG emissions. Therefore, the project would be consistent with this reduction strategy.
Leverage Technology Innovations		
• Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space • Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a “mobility wallet,” an app-based system for storing transit and other multi-modal payments • Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation	HQTA, TPAs, NMA, Livable Corridors.	Consistent. The project would require installation of raceways to be electric vehicle (EV) capable in accordance with the 2022 Title 24 standards and CALGreen Code. Therefore, the proposed project would leverage technology innovations and help the City, County, and State meet its GHG reduction goals. The project would be consistent with this reduction strategy.
Support Implementation of Sustainability Policies		
• Pursue funding opportunities to support local sustainable	Center Focused	Consistent. As previously discussed, the



development implementation projects that reduce greenhouse gas emissions • Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations • Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space • Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies • Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region • Continue to support long range planning efforts by local jurisdictions • Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.	proposed project would be located close to bus stops, which would promote alternative modes of transportation. The project would include common and private outdoor areas with landscaped planters, trees, and seating. Further, the project would comply with sustainable practices included in the CALGreen Code and 2022 Title 24 standards. Thus, the project would be consistent with this reduction strategy.
Promote a Green Region • Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards • Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration • Integrate local food production into the regional landscape • Promote more resource efficient development focused on conservation, recycling and reclamation • Preserve, enhance and restore regional wildlife connectivity • Reduce consumption of resource areas, including agricultural land • Identify ways to improve access to public park space	Green Region, Urban Greening, Greenbelts and Community Separators.	Consistent. The proposed project involves development of a residential community on an undeveloped, vacant lot with disturbed, ruderal vegetation, as well as scattered trees and shrubs, and would therefore not interfere with regional wildlife connectivity or concert agricultural land. The project would comply with CALGreen Code and exceed 2022 Title 24 standards by 10 percent, which would help reduce energy consumption and reduce GHG emissions. Thus, the project would support efficient development that reduces energy consumption and GHG emissions. The project would be consistent with this reduction strategy.
Source: Southern California Association of Governments, <i>2020-2045 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal</i>, September 3, 2020.		



Consistency with the City of Redlands General Plan and Climate Action Plan

The City adopted both the General Plan and CAP on December 5, 2017. The CAP has been prepared concurrently with the updated General Plan, reflecting the City's most current land use and transportation strategy, and GHG implications of various General Plan's goals and principles. The CAP is designed to provide discrete actions to operationalize the General Plan policies that help with GHG reduction. As demonstrated in Table 4.8-4, Consistency with the City of Redlands General Plan and Climate Action Plan, the project is consistent with the goal(s) related to GHG emissions reduction in the General Plan and Climate Action Plan. Additionally, the project would not exceed the Year 2030 emissions target of 6.0 MTCO₂e per capita per year, refer to Table 4.8-1.

Table 4.8-4
Consistency with the City of Redlands General Plan and Climate Action Plan

Goals/Principles	Project Consistency
General Plan Sustainable Community Element	
Goal: Serve as an environmental steward; ensure that residents enjoy clean air and water; make efficient use of energy, water, and land resources; and grow in a manner in which increased population does not negatively impact resources. • Principle 8-P.8: Promote sustainability by reducing the community's greenhouse gas (GHG) emissions and fostering green development patterns- including buildings, sites, and landscapes. • Principle 8-P.9: Undertake initiatives to enhance sustainability by reducing the community's GHG emissions.	Consistent. The proposed project would involve a residential development on an undeveloped land. The proposed project would exceed the 2022 Title 24 Building Energy Efficiency Standards by 10 percent. The project would promote alternative mode of transportation by installing a raceway in each home to be EV capable. As such, the project would ensure that the increased population associated with the proposed project would not negatively impact resources. The project would be consistent with the goal.
Climate Action Plan	
The climate action plan aims to reduce GHG emissions by reducing VMT through the following categories: bikeway system improvements, pedestrian improvements and increased connectivity, traffic calming, parking facilities and policies, transportation improvement.	Consistent. The project site is in an urbanized area and within walking and biking distance of existing residential and commercial developments. Additionally, the proposed project is located within a mile of OmniTrans bus stops. The project would also be complied with Title 24 and CalGreen Code, which would be required to be EV ready. As such, the project would be consistent with CAP reduction measures.
Sources: 1. City of Redlands, <i>City of Redlands General Plan, Chapter 8, Sustainable Community</i> , December 5, 2017. 2. City of Redlands, <i>City of Redlands Climate Action Plan</i> , adopted December 5, 2017.	

Conclusion

In summary, the project's characteristics render it consistent with Statewide, regional, and local climate change mandates, plans, policies, and recommendations. More specifically, the GHG plan consistency analysis provided above demonstrates that the project complies with the regulations and GHG reduction goals, policies, actions, and strategies outlined in the 2022 Scoping Plan, 2020-2045 RTP/SCS, and the City's General Plan and CAP. Consistency with these plans would reduce the impact of the project's incremental contribution of GHG emissions. Accordingly, the project would not conflict with any applicable plan, policy, regulation, or recommendation adopted for the purpose of reducing GHG emissions. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.



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4.9 Hazards and Hazardous Materials

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

This section is primarily based upon the following technical studies, provided in Appendix F1, Phase I/II ESA (APN 0167-061-01) and Appendix F2, Phase I/II ESA (APN 0167-061-03).

- *Phase I Environmental Site Assessment and Limited Phase II Site Assessment, 10±-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-01, 1160 W. Pioneer Avenue East of 210 Freeway and North of Domestic Avenue, City of Redlands, San Bernardino County, California, prepared by Petra Geosciences, Inc., dated September 10, 2021; and*
- *Phase I Environmental Site Assessment and Limited Phase II Site Assessment, 5±-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-03, Site East of 1160 W. Pioneer Avenue, City of Redlands, San Bernardino County, California, prepared by Petra Geosciences, Inc., dated May 11, 2022.*

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact. Exposure of the public or the environment to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, a transportation accident, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The



severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Construction

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, and transmission fluid), and/or import/export of soils. Project construction activities would be compliant with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials/waste, ensuring that potentially hazardous materials are used and handled in an appropriate manner. Impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

Operations

Hazardous materials are not typically associated with single-family residential uses. Anticipated hazardous materials use may include cleaning products and the use of pesticides and herbicides for landscape maintenance. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that potentially hazardous materials are used and handled in an appropriate manner, and would minimize the potential for safety impacts to occur. As such, impacts concerning the routine transport, use, or disposal of hazardous materials during project operations would be less than significant.

Mitigation Measures: No mitigation measures are required.

- b) ***Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Less Than Significant Impact with Mitigation Incorporated. One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure of contaminated soil, soil vapor, or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

Construction

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluids used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. As required by various State laws, the construction contractor is required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Construction activities could also result in accidental conditions involving existing on-site contamination. The following analysis considers current and past uses of the project site and its vicinity, which may have resulted in existing on-site soil and/or groundwater contamination, of which could cause accidental conditions during site disturbance activities.

Phase I/II ESA Results



Based on the Phase I/II ESA reports prepared for the project, the project site is located within the boundaries of an existing groundwater plume, which is considered a recognized environmental condition (REC). In addition, contaminated soils due to past agricultural uses exist on a portion of the project site (APN 0167-061-03). Specifically, the Phase I/II ESA reports found the following in connection with the project site:

- The project site is located within the Crafton-Redlands Plume boundary, a groundwater plume with known trichloroethylene (TCE) contamination. The Phase I/II ESA reports identify this as a Controlled REC (CREC).³⁰
- The project site was used for cultivated groves since at least 1930 until sometime between/during 1994 and 2002. Sometime between/during 1994 and 2002 the groves have been removed from the site and the site has remained vacant land to present. Therefore, the potential for soil contamination as a result of past agricultural uses exists on-site and two Limited Phase II Assessments were conducted, which revealed one composite sample, hand-auger (HA)-5 and HA-6 at a depth of 0.5 feet, was reported at 2.1 milligrams per kilogram (mg/kg), which is slightly above the U.S. Environmental Protection Agency (USEPA) Region 9 Regional Screening Level (RSL) of 2.0 mg/kg for Organochloride Pesticides (OCPs) in residential use soils; specifically, 1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene (DDE).

The following analysis evaluates potential environmental impacts from the RECs identified in the Phase I/II ESA reports.

Crafton-Redlands Groundwater Plume

The project site is located within the Crafton-Redlands Plume boundary, a groundwater plume with known TCE contamination. Strict definition of the Crafton-Redlands plume warrants it to be labeled as a CREC; however, based on 2015 and 2016 measured depths to groundwater (greater than 100-200 feet below grade [fbg]), the concentrations of contaminants are reported to be sufficiently low (below Maximum Contaminant Levels [MCLs] in close proximity to the site) as to not present a health risk to future residents. As a result, the plume underlying the site is considered a de minimis condition.

Former Agricultural Use

According to the Phase I/II ESA reports, historic aerial photographs, historical topographical maps, and the City directory indicate that the project site was used for agricultural practices since at least 1930 until sometime between/during 1994 and 2002. Two separate Limited Phase II Assessments were conducted (one for each project parcel), with soil sampling to determine the extent of possible soil contamination based on the site's former agricultural use.

Limited Phase II Assessment for APN 0167-061-01 (dated September 10, 2021)

During the field investigation of this portion of the project site, ten (10) discrete and two (2) duplicate soil samples were collected at a depth of 0.5 foot below ground surface and laboratory-tested. OCPs were detected in the soil samples; specifically, 4,4'-DDE was present. Although OCP 4,4'-DDE was detected, laboratory testing determined it was at levels below the USEPA Region 9 RSL and would not present a risk to human health. In addition, arsenic was not detected above the laboratory detection limit. Thus, the results of the investigation determined that soil at the project site is not significantly impacted with OCPs or Arsenic. Impacts would be less than significant in this regard.

³⁰ Controlled recognized environmental conditions (CREC'S) are defined by the American Society of Testing and Materials (ASTM) Practice E 1527-13 as a recognized environmental condition resulting from the past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (i.e., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.



Limited Phase II Assessment for APN 0167-061-03 (dated May 11, 2022)

During the field investigation of this portion of the project site, 10 hand-auger borings were advanced to a depth of 1.5 feet below ground surface and laboratory-tested. The results of laboratory testing are summarized below.

- Four composite samples and one duplicate composite sample contained concentrations of 4,4'-DDE that ranged from 0.345 milligrams per kilograms (mg/kg) to 1.4 (mg/kg). These detectable concentrations of DDE were found to be below the USEPA Region 9 RSL of 2.0 mg/kg for DDE in residential use soils.
- One composite sample, HA-5 and HA-6 at a depth of 0.5 ft., was reported at 2.1 mg/kg, which is slightly above the USEPA Region 9 RSL of 2.0 mg/kg for DDE in residential use soils.
- Three of the five composite samples (and one duplicate) contained concentrations of 1,1,1-Trichloro-2,2-bis(4-chlorophenyl) ethane (4,4'-DDT) that ranged from 0.056 mg/kg to 0.342 (mg/kg). Two of the composite samples reported a non-detect result, or below the Acceptable Detection Limit (ADL) of the test method of 0.001 mg/kg. All detectable concentrations of DDT were found to be below the USEPA Region 9 RSL of 1.9 mg/kg for DDT in residential use soils.

No other OCP analytes were reported at concentrations above the ADL. In addition, arsenic was not detected above the laboratory detection limit.

Thus, the results of the investigation determined that soils at this portion of the project site are significantly impacted with OCPs, and as such, mitigation is required to reduce this impact. Implementation of Mitigation Measure HAZ-1, which requires preparation of a Soil Management Plan, and Mitigation Measure HAZ-2, which requires excavation of the existing contaminated soils on-site, would reduce impacts to a less than significant level.

Operations

Refer to Response 4.9(a) for a description of impacts related to project operations. Upon adherence to existing regulations related to hazards and hazardous materials safety, impacts pertaining to the potential for accidental conditions during project operations would be less than significant and no mitigation is required.

Mitigation Measures:

HAZ-1 Soil Management Plan. Prior to issuance of a grading permit, a Soil Management Plan (SMP) shall be prepared by a qualified environmental professional with Phase II/Site Characterization experience. The SMP shall be approved by the City and made available by the project Applicant to the contractor and the City Engineer for use during grading activities. The SMP shall include guidelines for safety measures and soil management in the event that soils are to be disturbed, and for handling soil during any planned earthwork activities. The SMP shall also include a decision framework and specific risk management measures for managing soil, including any soil import/export activities, in a manner protective of human health and consistent with applicable regulatory requirements.

As part of this SMP, all excavation activities shall be documented daily using digital photography. In addition, the sides and the bottom of the excavation areas of concern shall be appropriately logged on scaled paper. Observed materials, including an estimate of the quantity observed, and PID and dust monitor readings shall be recorded on the Daily Field Record and/or the Direct Reading Log.



If the results of the stockpile samples show no contamination, or detected concentrations of chemicals within acceptable regulatory limits for residential uses, then the soil may be redistributed within the excavation. If soil is deemed contaminated, then it shall be disposed of off-site at an approved landfill facility. Should any soils be imported or exported at an off-site location, a Phase II/Site Characterization Specialist shall verify that all imported/exported soils are not contaminated with hazardous materials above regulatory thresholds. If import/export soils are determined to be contaminated above regulatory thresholds, the Phase II/Site Characterization Specialist would recommend proper handling, use, and/or disposal of these soils.

HAZ-2 Removal of Organochloride Pesticides (OCP) Contaminated Soils. Prior to site grading activities, the project Applicant shall submit documentation as proof, to the City Engineer, that the OCP-impacted soils at the project site have been excavated and disposed of at a licensed facility with confirmation sampling to show that all remaining soil OCP concentrations are below applicable regulatory screening thresholds for residential uses. The excavation, transport, and disposal of all OCP-impacted soils from the project site shall occur in accordance with applicable Federal, State, and/or local regulations. In no event shall the project Applicant proceed with site grading activities at any location on the site where OCP contamination is found to be present above regulatory thresholds for residential use.

c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Less Than Significant Impact with Mitigation Incorporated. There is an existing school within 0.25-mile of the project site; specifically, Citrus Valley High School is located immediately adjacent to the site. The proposed project would involve soil remediation activities that may require the handling of hazardous materials at the project site and the transport of contaminated materials off-site to an approved landfill facility during project construction. These activities would be required to comply with Federal, State, and local laws and regulations regarding the handling and transport of hazardous materials. During project operations, the proposed residential dwellings do not typically involve the handling of hazardous materials or hazardous emissions in reportable quantities. Additionally, Mitigation Measures HAZ-1 and HAZ-2 would include removal of contaminated soils and precautionary measures involving soil management during grading.

With compliance with Federal, State, and local laws and regulations as well as implementation of Mitigation Measures HAZ-1 and HAZ-2, project construction and operations are not anticipated to result in adverse impacts involving the handling of hazardous materials, substances, or waste within the vicinity of Citrus Valley High School. As such, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 and HAZ-2.

d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

No Impact. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations,



to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

According to the Phase I/II ESA reports prepared for the project, the project site is not listed pursuant to Government Code Section 65962.5. No impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

- 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?***

Less Than Significant Impact. The project site is located between two public airports. San Bernardino International Airport is located 1.5 miles to the northwest and Redlands Municipal Airport is located 2.6 miles to the east. As shown on Exhibit 6, *Updated ALUCP Safety Zones*, of the 2015 Redlands Municipal Airport Land Use Compatibility Plan Review, the project site is located outside the Redlands Municipal Airport Influence Area. Further, as shown in Figure 7-7, *Airport Hazards*, of the City of Redlands General Plan 2035, the project site lies outside of the Runway Protection Zone; Approach/Departure Zone; Extended Approach/Departure Zone; or other Airport Environ area. The site is also not located within the 60 CNEL airport noise contour, and is not within an Area of Special Compatibility Concern.

Therefore, based on the project site's location, the project would not result in a safety hazard or excessive noise for people residing in project area. This impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

- f) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less Than Significant Impact with Mitigation Incorporated. Relevant emergency response or emergency evacuation plans include the San Bernardino County Emergency Operations Plan and, to the extent that they mitigate potential disasters in the City of Redlands and vicinity, the Redlands Hazards Mitigation Plan (HMP) and the San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). The San Bernardino County MJHMP is regional plan that provides measures for reducing and/or eliminating risk in the unincorporated area of the County and its five Special Districts.

As indicated in Section 4.17, Transportation, the project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways. Access to the site would be provided via two entry points: one from West Pioneer Avenue and one from West Domestic Avenue. The Redlands Fire Department would review the proposed vehicular circulation network against the Department's requirements related to fire access and turning radius requirements. Further, should partial or full lane closures be required as part of project construction activities, implementation of a Traffic Management Plan (TMP) would minimize congestion and ensure safe travel, including emergency access in the project vicinity; refer to Mitigation Measure TRA-1. As such, project implementation would not interfere with the implementation of an emergency response plan or emergency evacuation plan. With implementation of Mitigation Measure TRA-1, impacts would be reduced to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure TRA-1 in Section 4.17.



g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

No Impact. According to the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map Viewer, the project site is not designated as being within a fire hazard severity zone in the State or Local Responsibility Area.³¹ In the event of a fire, adequate access and circulation for fire trucks would be provided through the proposed neighborhood. Access to the site would be provided via two entry points: one from West Pioneer Avenue and one from West Domestic Avenue, with access available to all of the through streets within the development. As a result, project implementation would not result in exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Mitigation Measures: No mitigation is required.

³¹ California Department of Forestry and Fire Protection, *FHSZ Viewer*, <https://egis.fire.ca.gov/FHSZ/>, accessed June 3, 2023.



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4.10 Hydrology and Water Quality

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?			✓	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
3) 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?			✓	
4) Impede or redirect flood flows?			✓	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

The information presented in this analysis is based on the *Preliminary Drainage Report for Pioneer Avenue Tentative Tract No. 20528* (Drainage Report), prepared by Huitt-Zollars, Inc. (November 10, 2022); refer to [Appendix G1](#), and the *Preliminary Water Quality Management Plan for Pioneer Avenue Redlands, Tentative Tract No. 20528* (WQMP), prepared by Huitt-Zollars, Inc. (November 10, 2022), refer to [Appendix G2](#).

a) ***Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the EPA established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharge. In California, the State Water Resources Control Board (SWRCB) administers the General Construction Permit under the NPDES permitting program and is responsible for developing NPDES permitting requirements. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCBs) to preserve, protect, enhance, and restore water quality. The City lies within the Santa Ana RWQCB.

Construction

Typical construction activities would require the use of gasoline- and diesel-powered heavy equipment, such as backhoes, water pumps, bulldozers, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would also



likely be used during construction. An accidental release of any of these substances could degrade surface water runoff quality and contribute additional sources of pollution to the existing drainage system. Therefore, small quantities of pollutants have the potential to enter the storm drainage system during project construction and degrade water quality. In general, construction-related impacts to water quality could occur in the following periods of activity:

- During the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; and
- Following construction, before the establishment of ground cover, when the erosion potential may remain relatively high.

Because development of the project would disturb more than one acre of soil, construction activities would be required to obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities requirements (and all subsequent revisions and amendments). To demonstrate compliance with NPDES requirements, a Notice of Intent must be prepared and submitted to the SWRCB, providing notification and intent to comply with the Construction General Permit. The Construction General Permit also requires that non-stormwater discharges from construction sites be eliminated or reduced to the maximum extent practicable, a stormwater pollution prevention program (SWPPP) that governs construction activities for the project be developed, and routine inspections be performed of all stormwater pollution prevention measures and control practices being used at the site, including inspections before and after storm events. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports.

The SWPPP would include a site map showing the construction site perimeter, proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns. The SWPPP would identify the BMPs that would be used to protect stormwater runoff and the placement of those BMPs. The SWPPP would also identify a visual monitoring program, a chemical monitoring program for “nonvisible” pollutants to be implemented if there is a failure of BMPs. Upon completion of construction, a Notice of Termination would be submitted to the SWRCB to indicate that construction has been completed.

The City of Redlands enforces application of water quality BMPs through Municipal Code Chapter 13.54, *Storm Drains*. Specifically, Municipal Code Section 13.54.180, *Best Management Practices*, requires that all new construction use BMPs to prevent the discharge of pollutants to the maximum extent practicable. According to the Municipal Code, examples of suitable BMPs may be found in the California Stormwater Quality Association (CASQA) *Stormwater Best Management Practice Handbook*, and the City of Redlands' *Storm Water Guidance Handbook*.

Pursuant to Redlands Municipal Code Section 15.54.160, *Irrigation Audit, Irrigation Survey, And Irrigation Water Use Analysis*, new development or development projects shall implement stormwater management practices to minimize runoff and increase infiltration. The City of Redlands Municipal Utilities and Engineering Department (MUED) would review and approve BMPs contained in the SWPPP to be implemented to reduce the discharge of pollutants during construction. The SWPPP shall identify erosion control BMPs to minimize pollutant discharges during construction activities. These identified BMPs would include stabilized construction entrances, sand bagging, designated concrete washout, tire wash racks, silt fencing, and curb cut/inlet protection. Compliance with Redlands Municipal Code Section 15.54.160, as well as NPDES requirements, would reduce construction-related impacts to water quality to less than significant.

Operations

Long-term impacts to water quality occur when impacts related to urban runoff increase due to project operations. A reduction of permeable surfaces would be considered a water quality impact, as permeable surfaces allow for rain and runoff to infiltrate into the ground. Infiltration both reduces the amount of flow that is capable of washing off additional



pollutants and filter water removing potential pollutants. These changes have the potential to affect long-term water quality. The project involves construction of 117 single-family residences and associated hardscapes. Project implementation would result in a reduction of permeable surfaces, since vacant land would be replaced with residential uses. Thus, the water quality issues of concern would involve urban runoff associated with the new land uses.

With compliance with existing Federal, State, and local regulations related to water quality, implementation of BMPs included in the project construction SWPPP, and implementation of design recommendations included in the project's *Drainage Report*, the project would result in less than significant impacts to water quality resulting from project operation. The proposed project would not generate hazardous wastewater that would require any special waste discharge permits. All wastewater associated with the project's interior plumbing systems would be discharged into the local sewer system for treatment at the regional wastewater treatment plant. Impacts would be less than significant with implementation of required BMPs and design recommendations, as enforced through Municipal Code Chapter 13.54.

Mitigation Measures: No mitigation measures are required.

b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less Than Significant Impact. The proposed project would increase impervious surfaces at the project site compared to existing conditions. However, implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project impedes sustainable groundwater management of the basin. According to the Geotechnical Evaluation prepared for the project, groundwater was not encountered in the borings to the maximum explored depth of approximately 56.5 feet below grade. In addition, the California Department of Water Resources website indicates that recent groundwater levels since 1990 in the nearby area are greater than 130 feet below ground surface. Groundwater may have been as shallow as 55 feet back in the 1940's, however, it is highly unlikely groundwater levels would rise to those previous elevations in the future; refer to Appendix E, *Geotechnical Evaluation*. Further, the project site is not currently used for groundwater extraction or groundwater recharge.

The City of Redlands MUED provides local water service in the City and would serve the proposed project. The City of Redlands is an implementing agency of the 2020 San Bernardino Valley Integrated Regional Urban Water Management Plan (UWMP), adopted in June 2021. The UWMP provides a summary of water supply sources for the area, as well as management strategies to meet targets for future water use, including groundwater supply. Domestic water supplies from this service provider are reliant on four sources: purchased imported water (from the State Water Project); groundwater (from the Bunker Hill Subbasin and Yucaipa Subbasin); surface water (from the Mill Creek Watershed and Santa Ana River Watershed); and recycled water (from the City's wastewater treatment plant).

The project involves development of 117 single-family residential units, which would result in increased water consumption, placing greater demands on groundwater supplies. However, the project would not substantially decrease groundwater supplies such that it would impede sustainable groundwater management of the basin. Based on the UWMP, the long-term analysis of the groundwater table during average years and dry years indicates that the supply will still be capable of meeting the City's demand through 2040. To maximize the use of local water resources and reduce dependence on imported water supplies, the City has established conservation pricing methods, based on the cost of providing service to each customer, developed water loss management programs and increased public education on demand management. The region has also taken steps to increase supply reliability by recharging current imported water supplies during wet years to enhance groundwater supplies for use in dry years. Continued compliance with these strategies would ensure that future development in the City occurs in a sustainable manner with regard to groundwater supply and does not outpace the ability to provide sufficient water supply to residents.



According to the City's General Plan Sustainable Community Element, the City has recently seen a substantial drop in overall and per capita water use as compared to historical levels a result of ongoing conservation measures. The General Plan contains principles and actions aimed at further implementing water conservation measures throughout the planning horizon. Compliance with these principles and actions would further reduce the project's impacts to groundwater supplies. Therefore, a less than significant impact would occur with project implementation.

Mitigation Measures: No mitigation measures are required.

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:***

1) ***Result in substantial erosion or siltation on- or off-site?***

Less Than Significant Impact. The project proposes to develop a residential community with associated landscaping on a site that is currently vacant land. Construction and operation of the proposed project would increase the net area of impermeable surfaces on the site. Onsite runoff from the project area, including areas associated with a portion of the proposed public street improvements of Domestic Avenue, would be captured by on-site storm drain inlets and conveyed to an on-site detention basin, which would allow infiltration of the low impact development (LID) design capture volume. The infiltration system design would be constructed by the project civil engineer, in compliance with City guidelines. Once construction of the project is completed, the project would consist of impervious surfaces and landscaping, and therefore the development would not be subjected to substantial erosion. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

2) ***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. The development of 117 single-family residences and associated hardscapes would change drainage patterns and increase the amount of impermeable surfaces on the project site, which would in turn increase runoff volumes entering the City's storm water collection system. However, an on-site detention basin is proposed to mitigate increases in storm water runoff leaving the site. The off-site existing flow patterns would be retained.

All on-site storm water would be captured in accordance with Santa Ana RWQCB Order Number R8-2010-0033, National Pollutant Discharge Elimination System Permit No. CAS618033, also known as the Municipal Separate Storm Sewer System or MS4 permit. Thus, as the proposed storm drain system would meet MS4 permit requirements, impacts concerning on- or off-site flooding would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) ***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. As discussed in Response 4.10(c)(2), although the proposed project would involve an increase in impervious surfaces, the project's proposed storm drain system would ensure the project's peak flow rate does not exceed the MS4 requirements. Therefore, the proposed project is not anticipated to exceed the capacity of an existing or planned stormwater drainage system. As stated in Response 4.10(a), operations of the proposed project would be subject to compliance with NPDES requirements and Redlands Municipal Code Section 15.54.160, *Irrigation Audit, Irrigation Survey, And Irrigation Water Use Analysis*, in order to reduce long-term water quality impacts to less



than significant levels. Therefore, project implementation is not anticipated to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

4) *Impede or redirect flood flows?*

Less Than Significant Impact. Refer to Responses 4.10(c)(2) and 4.10(d).

Mitigation Measures: No mitigation measures are required.

d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

No Impact.

The project site is not located near any large inland bodies of water and is more than 50 miles from the Pacific Ocean, a condition that precludes inundation by tsunami. According to the General Plan's Flood Hazard Map (General Plan Figure 7-3), the project site is not located within a flood zone or a dam inundation area. Therefore, since the project site is not at risk for flood hazards, tsunami or seiche, there would be no impact relative to the risk of release of pollutants due to project inundation.

Mitigation Measures: No mitigation measures are required.

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less Than Significant Impact. The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan (GSP). The project site is located within the Upper Santa Ana Valley – San Bernardino Basin, which is ranked as a “very low” priority basin.³² Therefore, development of a GSP or an approved GSP alternative is not required.

As discussed, the project would be required to comply with NPDES and Municipal Code requirements regarding protection of water quality and thus would not conflict with the Management Plan. Further, the project would not substantially deplete groundwater supplies or interfere with groundwater recharge. As such, upon compliance with all applicable regulations, the proposed project is not anticipated to conflict with or obstruct implementation of the Management Plan.

The project site is located within the Santa Ana RWQCB. The Santa Ana RWQCB manages surface waters through implementation of its *Water Quality Control Plan for the Santa Ana River Basin* (Basin Plan). Basin Plan Chapter 2, *Plans and Policies*, includes a number of water quality control plans and policies adopted by the SWRCB that apply to the Santa Ana RWQCB. Basin Plan Chapter 4, *Water Quality Objectives*, includes specific water quality objectives according to waterbody type (i.e., ocean waters, enclosed bays and estuaries, inland surface waters, and groundwaters. As concluded under Responses 4.10(a) and 4.10(b), the project would result in less than significant impacts to surface water quality and groundwater quality following conformance with applicable regulations. Less than significant impacts would occur in this regard.

³² California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, <https://gis.water.ca.gov/app/bp-dashboard/final/>, accessed June 6, 2023.



Mitigation Measures: No mitigation measures are required.



4.11 Land Use and Planning

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			✓	

a) *Physically divide an established community?*

No Impact. The factors that could physically divide a community are generally large, linear infrastructure projects including, but are not limited to construction of major highways or roadways; construction of storm channels; closing bridges or roadways; and construction of utility transmission lines.

The key factor with respect to this question is creating physical barriers that change the connectivity between areas of a community to the extent that persons are separated from other areas of the community. As indicated in [Section 2.0, Project Description](#), the project site is currently vacant and is surrounded by vacant, agricultural, and public/institutional uses. The project does not propose to construct any major off-site infrastructure, utilities, or roadways that could physically divide an established community within the project site or the immediate vicinity. No changes to the connectivity of the surrounding area are proposed that would separate persons from other areas of the community. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Less Than Significant Impact. The project site has a General Plan land use designation of Commercial/Industrial, and a zoning designation of Industrial (EV-SRP). The project would require a General Plan Amendment to change the site's designation to Medium Density Residential, which allows for densities of 8 to 15 dwelling units per acre (du/ac). The project would also require a Zone Change to Specific Plan No. 64 (Bergamot Specific Plan), and a Specific Plan Amendment to incorporate the project site in the Bergamot Specific Plan boundary. The Bergamot Specific Plan was adopted by the City on October 5, 2021. It was developed to produce a cohesive, unified development sensitive to the project site and surrounding area through the integration of special buffer treatments, architectural theming, placement of structure, and the integration of passive and active open space and recreational uses.³³

The proposed project, involving a Zone Change to Specific Plan No. 64 (Bergamot Specific Plan) and a Specific Plan Amendment to include the project site within the Bergamot Specific Plan boundary, aligns with the City of Redlands General Plan. This alignment is achieved by fostering urban development and land use patterns that are consistent with the City's long-term vision for sustainable growth and efficient land utilization, as outlined in the General Plan. By integrating the project site into the Bergamot Specific Plan, the project embraces the City's established planning

³³ City of Redlands, Bergamot Specific Plan, https://www.cityofredlands.org/sites/main/files/file-attachments/bergamot-specific_plan.pdf?1646188068, adopted October 5, 2021.



framework and promotes a balanced blend of land uses that adhere to the overarching goals and policies of the City of Redlands General Plan.

The project as proposed would allow for development of 117 two-story motor court homes distributed along two new public streets ("Street A" and "Street B") on the 14.62-acre site; refer to Exhibit 3, *Conceptual Site Plan*. Proposed density would be approximately 8 du/ac.

With City approval of the GPA and rezone, the proposed use of the subject site to support motor court homes would be consistent with the General Plan, Bergamot Specific Plan, and Municipal Code. Further, as noted, the project would require a Specific Plan Amendment to add the project site into the Bergamot Specific Plan area. The proposed use of motor homes would be consistent with intended development for the Specific Plan area, which includes development of an estimated 120 single-family motor court homes within Neighborhood Three. Design measures identified as part of the Specific Plan (i.e., buffer treatments, architectural theming, placement of structure, and the integration of passive and active open space and recreational uses) would further ensure that the proposed motor home uses are compatible with applicable land use plans and policies.³⁴

Further, the project's design would be reviewed and approved by the City during the development review process. This process would verify that the project's design is compatible with development in the surrounding vicinity and that it is consistent with applicable zoning regulations. As such, the project would result in less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

³⁴ City of Redlands, Bergamot Specific Plan, https://www.cityofredlands.org/sites/main/files/file-attachments/bergamot-specific_plan.pdf?1646188068, adopted October 5, 2021.



4.12 Mineral Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?			✓	
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

Less than Significant Impact. According to the General Plan, The Santa Ana Wash adjoining Redlands contains high quality construction aggregates that have been mined since the 1920s. The City is required by the Surface Mining and Reclamation Act of 1975 (SMARA) to incorporate mapped designations of mineral resource zones within the General Plan. Figure 6-4, Mineral Resources, from the Vital Environment chapter of the General Plan shows mineral land classifications and designated aggregate resource sectors as identified by the California Geological Survey (CGS), including Mineral Resource Zones (MRZs).³⁵

Figure 6-4 shows that the project site is located within an area designated as MRZ-2. The General Plan states that the MRZ-2 classification identifies areas where geologic data indicate that significant PCC-Grade aggregate resources are present. As discussed throughout this IS/MND, historical uses of the project site included agricultural uses, and have not included mineral extraction. The project site does not currently support mineral extraction and the project does not propose mineral extraction activities. Furthermore, General Plan Policy Action 6-A.32 states that surface mining permits be denied where unmitigated adverse impacts would be significantly greater than at alternative locations within the San Bernardino Production-Consumption Region. The site is located directly adjacent to Citrus Valley High School, which would be impacted significantly if the site were to be utilized for the mining of construction aggregate. Therefore, the City's General Plan designation and zoning classification do not permit mining activities on the project site. Therefore, impacts involving the loss of a valuable mineral resource would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. Refer to Response 4.12(a). The project site is not utilized as a mineral resource recovery site. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

³⁵ Mining and Geology Board, California Department of Conservation, *Guidelines for Classification and Designation of Mineral Lands*, <https://www.conservation.ca.gov/smgbl/guidelines/documents/classdesig.pdf>.



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4.13 Noise

<i>Would the project result in:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b. Generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			✓	

This section is primarily based upon the *Noise Impact Analysis Tentative Tract Map No. 20528 Residential Project, City of Redlands* (Noise Study) prepared by Vista Environmental on August 2, 2023. This study is provided in [Appendix H, Noise Study](#).

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10 dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA. Similarly, Community Noise Equivalent Level (CNEL) is a measure of 24-hour noise levels that incorporates a 5-dBA penalty for sounds occurring between 7:00 p.m. and 10:00 p.m. and a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.



REGULATORY FRAMEWORK

State

The State Office of Planning and Research (OPR) Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. Table 4.13-1, *Land Use Compatibility for Community Noise Environments*, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 4.13-1
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial, Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA
Notes: NA = Not Applicable; L_{dn} = Day/Night Average; CNEL = community noise equivalent level; dBA = A-weighted decibels				
<u>Normally Acceptable</u> - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.				
<u>Conditionally Acceptable</u> - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.				
<u>Normally Unacceptable</u> - New Construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.				
<u>Clearly Unacceptable</u> - New construction or development should generally not be undertaken.				
Source: State of California Governor's Office of Planning and Research, <i>General Plan Guidelines</i> , July 2017.				

Local

City of Redlands General Plan

The Noise Element of the General Plan includes Implementing Policies aimed at the control and abatement of environmental noise and protection of citizens from excessive exposure to noise. To protect City residents from excessive noise, the Noise Element contains the following Implementing Policies related to the project:



- 9.0e** Use the criteria specified in GP Table 9.1 (see [Table 4.13-2](#) below) to assess the compatibility of proposed land uses with the projected noise environment and apply the noise standards in GP Table 9.2 (see [Table 4.13-3](#) below), which prescribe interior and exterior noise standards in relation to specific land uses. Do not approve projects that would not comply with the standards in GP Table 9.2.

Table 4.13-2
City of Redlands Noise and Land Use Compatibility Matrix

Land Use Categories	Uses	Community Noise Equivalent Level (CNEL)						
		<60	65	70	75	80	>85	
Residential	Single-Family, Duplex, Multiple-Family	A	C	C	C	D	D	D
	Mobile Homes	A	C	C	C	D	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional, Village, District, Special	Commercial, Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial Industrial, Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Commercial Recreation Institutional Civic Center	Amphitheatre, Concert Hall, Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	A	B	B	B
Commercial General, Special Industrial, Institutional	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional General	Hospital, Church, Library, Schools, Classroom	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
	Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	A	A	A

Source: Table 7-10 from City of Redlands General Plan, 2017.

Notes:

Zone A: Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally Incompatible. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible. New construction or development should generally not be undertaken.



Table 4.13-3
City of Redlands Interior and Exterior Noise Standards

Land Use Categories	Uses	Community Noise Equivalent (CNEL)	
		Interior ¹	Exterior ²
Residential	Single-Family, Duplex, Multiple-Family	45 ^{3,5}	60
	Mobile Homes	--	60 ⁴
Commercial, Institutional, Open Space	Hotel, Motel, Transient Lodging	45	65 ⁵
	Commercial Retail, Bank, Restaurant	55	--
	Office Building, Research & Development, Professional Offices, City Office Building	50	--
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	60	--
	Movie Theatres	45	--
	Hospital, School's Classroom	45	--
	Parks	--	60
Source: Table 9.2 from City of Redlands General Plan, 2017. Notes: 1 Indoor environment excluding: bathrooms, toilets, closets, corridors. 2 Outdoor environment limited to: private yard of single-family as measured at the property line; multi-family private patio or balcony which is served by a means of exit from inside; mobile home park, hospital patio; park picnic area; school playground; hotel and recreational area.. 3 Noise level requirement with closed windows, if they are used to meet natural ventilation requirement. 4 Exterior noise level should be such that interior noise level will not exceed 45 CNEL. 5 Except those areas affected by aircraft noise. See also Policy 9.0s.			

- 9.0f** Require a noise impact evaluation based on noise measurements at the site for all projects in Noise Referral Zones (B, C, or D) as shown on GP Table 9.1 and on GP Figure 9.1 or as determined from tables in the Appendix, as part of the project review process. Should measurements indicate that unacceptable noise levels will be created or experienced, require mitigation measures based on a detailed technical study prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California with a minimum of three years' experience in acoustics).
- 9.0i** Require construction of barriers to mitigate sound emissions where necessary or where feasible and encourage use of walls and berms to protect residential or other noise sensitive land uses that are adjacent to major roads, commercial, or industrial areas.
- 9.0s** Require mitigation to ensure that indoor noise levels for residential living spaces not exceed 45 dB LDN/CNEL due to the combined effect for all exterior noise sources.

The Uniform Building Code (specifically, the California Administrative Code, Title 24, Part 6, Division T25, Chapter 1, Subchapter 1, Article 4, Sections T25-28) requires that "Interior community noise levels (CNEL/LDN) with windows closed, attributable to exterior sources shall not exceed an annual CNEL or LDN of a 45 dB in any habitable room." The code requires that this standard be applied to all new hotels, motels, apartment houses and dwellings other than detached single-family dwellings.



Policy 9-s sets the maximum acceptable interior noise level at 45 CNEL. The Noise Referral Zones (65 CNEL) delineate areas within which tests to ensure compliance are to be required for new structures.

9.0u Require all new residential projects or replacement dwellings to be constructed near existing sources of non-transportation noise (including but not limited to commercial facilities or public parks with sports activities) to demonstrate via an acoustical study conducted by a Registered Engineer that the indoor noise levels will be consistent with the limits contained in the Community Noise Ordinance.

9.0v Consider the following impacts as possibly “significant”:

- An increase in exposure of four or more dB if the resulting noise level would exceed that described as clearly compatible for the affected land use, established in GP Table 9.1 and GP Table 9.2;
- Any increase of six dB or more, due to the potential for adverse community response.

Redlands Municipal Code

The City of Redlands Municipal Code establishes the following applicable standards related to noise:

Section 8.06.030 – General Noise Regulations

It shall be unlawful for any person to willfully or negligently make, or cause to be made, any loud, unnecessary or unusual noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to a reasonable person of normal sensitivity in the area. The factors that may be considered in determining whether a violation of this chapter exists include, but are not limited to, the following:

- A. The sound level of the objectionable noise;
- B. The sound level of the ambient noise;
- C. The proximity of the noise to residential living or sleeping facilities;
- D. The nature and zoning of the area within which the noise emanates;
- E. The number of persons affected by the noise;
- F. The time of day or night the noise occurs;
- G. The duration of the noise;
- H. The tonal, informative or musical content of the noise;
- I. Whether the noise is continuous, recurrent, or intermittent;
- J. Whether the noise is produced by a commercial or noncommercial activity;
- K. Whether the nature of the noise is usual or unusual;
- L. Whether the origin of the noise is natural or unnatural; and
- M. Whether the noise occurs on a weekday, weekend or a holiday.



Section 8.06.070 – Exterior Noise Limits

A. The noise standards for the categories of land uses identified in Table 1 of this section shall, unless otherwise specifically indicated, apply to all such property within a designated zone.

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 1 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.

C. If the measured ambient level exceeds the allowable noise exposure standard within any of the first four (4) noise limit categories below, the allowable noise exposure standard shall be adjusted in five (5) dB increments in each category as appropriate to encompass or reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

D. The ambient noise shall be measured at the same location along the property line utilized in subsection 8.06.06B of this chapter, with the alleged offending noise source inoperative. If the alleged offending noise source cannot be shut down, the ambient noise shall be estimated by performing a measurement in the same general area of the source but at sufficient distance that the noise from the source is at least ten (10) dB below the ambient in order that only the ambient level be measured. If the difference between the ambient and noise source is five (5) to ten (10) dB, then the level of the ambient itself can be reasonably determined by subtracting a one decibel correction to account for the contribution of the source.

E. In the event the alleged offensive noise contains a steady, audible tone such as a whine, screech, hum, or is a repetitive noise such as a hammering or riveting, or contains music or speech conveying informational content, the standard limits set forth in Table 1 of this section shall be reduced by five (5) dB.

Section 8.06.080 – Interior Noise Standards

A. No person shall operate or cause to be operated any source of sound, or allow the creation of any noise, which causes the noise level when measured inside a neighboring receiving occupied building to exceed the following standards.

1. The noise standard for that land use specified in Table 2 of this section for a cumulative period of more than five (5) minutes in any hour.



2. The noise standard for that land use specified in Table 2 of this section plus five (5) dB for a cumulative period of more than one minute in any hour.
3. The noise standard for that land use specified in Table 2 of this section plus ten (10) dB for the maximum measured ambient noise level for any period of time.

B. If the measured ambient level exceeds the allowable exterior noise exposure standard in Table 1 of this chapter, the allowable interior noise exposure level shall be adjusted in five (5) dB increments as appropriate to reflect the ambient noise level.

Section 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 government entity. All mobile or stationary internal combustion engine powered equipment or machinery shall be equipped with exhaust and air intake silencers in proper working order, or suitable to meet the standards set forth herein.

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.

Section 8.06.120 – Exemptions

A. Emergency Exemption: This chapter shall not apply to:

1. The emission of sound for the purpose of alerting persons to the existence of an emergency such as, but not limited to, loudspeakers, horns, sirens, whistles or other similar devices which emit sound, only for the time required to make notification of the emergency condition; or

2. The emission of sound in the performance of emergency work or the temporary provision of essential services such as, but not limited to, utility system repairs or upgrades, infrastructure repairs, structural repairs and other unscheduled, infrequent and nonrecurring activities, required to protect persons and property from physical harm or loss of essential services.

B. Warning Devices: This chapter shall not apply to warning devices necessary for the protection of public safety. Police, fire and ambulance sirens and train horns are exempt from this chapter.

C. Outdoor Activities: This chapter shall not apply to occasional outdoor public gatherings, public dances, shows, and sporting and entertainment events conducted within city parks and city owned facilities, including events conducted at the Redlands Bowl, provided such events are conducted pursuant to a permit or license issued by the city.

D. School Activities: This chapter shall not apply to activities and operations conducted on the grounds of any public or private elementary, intermediate or secondary school or colleges and universities.



E. Hospital: This chapter shall not apply to activities and operations conducted within the grounds of the Redlands Community Hospital provided that said activities and operations are in compliance with the acoustical provisions of the hospital's conditional use permit.

F. Minor Maintenance Of Residential Property: This chapter shall not apply to noise sources associated with the minor maintenance of residential property, provided such activities take place between the hours of seven o'clock (7:00) A.M. to eight o'clock (8:00) P.M. on weekdays, and seven o'clock (7:00) A.M. to eight o'clock (8:00) P.M. on weekends and legal holidays, and provided that such activities generate no more than ninety (90) dBA at or within the real property line of the residential property. Activities covered under this provision include, but are not limited to, maintenance of landscaping and minor repair of residential dwellings or ancillary structures.

G. Construction Activities: 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) 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.

H. Agricultural Operations: This chapter shall not apply to mobile noise sources associated with agricultural operations for use in maintenance, cultivation, planting and harvesting of agricultural areas provided said activities take place between the hours of seven o'clock (7:00) A.M. to eight o'clock (8:00) 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.

I. Chapter Application: This chapter shall not apply to any activity in which State or Federal law has preempted the regulation of such activity.

Existing Conditions

Noise within the proposed project area is generally characterized by vehicle traffic on I-210, where the nearest travel lane is located as near as 185 feet west of the project site, and from noise created by activities at Citrus Valley High School, which is located adjacent to the east side of the project site.

Noise Measurements

In order to quantify existing ambient noise levels in the vicinity of the project site, noise measurements were taken on August 13 and 14, 2021; refer to Table 4.13-4, Noise Measurements. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. As shown in Table 4.13-4, the ambient recorded noise level in the project vicinity ranged between 62.0 dBA and 94.8 dBA. The results of the field measurements are included in Appendix H, Noise Study.



**Table 4.13-4
Existing (Ambient) Noise Measurements**

Site No.	Measurement Location	L _{eq} (dBA)	L _{max} (dBA)	Min. 1-Hour Interval (dBA L _{eq} /Time)	Max. 1-Hour Interval (dBA L _{eq} /Time)	Average (dBA CNEL)
A	Located on a power pole in the southwest portion of the project site, approximately 30 feet north of Pioneer Avenue centerline and 270 feet east of I-210 centerline	65.7	94.8	54.5 2:43 a.m.	70.8 3:44 p.m.	69.1
B	Located on a tree in the northeast portion of the project site, approximately 60 feet south of Domestic Avenue (dirt road) centerline and 530 feet east of I-210 centerline	62.0	84.6	56.0 2:53 a.m.	66.9 6:30 p.m.	67.2
Notes: dBA = A-weighted decibels, L _{eq} = Equivalent Sound Level; L _{min} = Minimum Sound Level; L _{max} = Maximum Sound Level, Peak = Highest Instantaneous Sound Level						
Source: Vista Environmental, <i>Noise Impact Analysis Tentative Tract Map No. 20528 Residential Project, City of Redlands (Noise Study)</i> , August 2, 2023.						

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest sensitive receptors to the project site are students and staff at Citrus Valley High School that is adjacent to the east side of the project site, where the nearest structure is the stadium bleachers that are located as near as 14 feet east of the project site and the nearest classroom structure, is located as near as 600 feet east of the project site. The nearest homes are located as near as 770 feet to the southeast of the project site, which are located on the south side of Pioneer Avenue.

Impact Analysis

- 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?***

Less Than Significant Impact.

Construction

The project involves construction activities associated with grading, paving, building construction, and architectural coating applications. Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial earthwork phases. This phase of construction has the potential to create the highest levels of noise. Typical noise levels generated by construction equipment are shown in Table 4.13-5, Maximum Noise Levels Generated by Typical Construction Equipment. Table 4.13-5 also shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Noise



impacts from construction of the proposed project have been analyzed through use of the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM).

Section 8.06.120(G) of the City's Municipal Code exempts noise sources associated with new construction, remodeling, rehabilitation or grading of any property from the City's noise standards provided construction activities that occur do not take place between the hours of 6:00 p.m. and 7:00 a.m. on weekdays and Saturdays, with no activities occurring at any time on Sundays or Federal holidays. However, the City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby residents.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, Federal Transit Administration (FTA) construction noise criteria thresholds have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes or school classrooms. Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in the *Noise Study*. The results are shown below in Table 4.13-6, Construction Noise Levels at Nearby Sensitive Receptors.

Table 4.13-5
Maximum Noise Levels Generated by Typical Construction Equipment

Type of Equipment	Acoustical Use Factor ¹	Spec 721.560 L _{max} at 50 feet ² (dBA, slow ³)	Actual Measured L _{max} at 50 feet ⁴ (dBA, slow ³)
Site Preparation			
Rubber Tired Dozers	40	85	83
Tractors, Loaders, or Backhoes	40	84	N/A
Grading			
Excavators	40	85	81
Graders	40	85	83
Rubber Tired Dozers	40	85	82
Scrapers	40	85	84
Tractors, Loaders or Backhoes	40	84	N/A
Building Construction			
Cranes	16	85	81
Forklift (Gradall)	40	85	83
Generators	50	82	81
Tractors, Loaders or Backhoes	40	84	N/A
Welders	40	73	74
Paving			
Pavers	50	85	77
Paving Equipment	50	85	77
Rollers	20	85	80
Architectural Coating			
Air Compressors	40	80	78
Source: Federal Highway Administration, 2006 and CalEEMod default equipment mix.			
Notes:			
1 = Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.			
2 = Spec 721.560 is the equipment noise level utilized by the RCNM program.			



3 = The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.
4 = Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.

Table 4.13-6 shows that greatest construction noise impacts would occur during the grading phase, with noise levels as high as 63 dBA Leq at the nearest classrooms to the east and as high as 59 dBA Leq at the nearest homes to the southeast. All calculated construction noise levels shown in Table 4.13-6 are within the FTA daytime construction noise standard of 80 dBA averaged over eight hours. Therefore, through adherence to the limitation of allowable construction times provided in Section 8.06.120(G) of the City's Municipal Code, construction-related noise levels would not exceed any standards established in the General Plan or Noise Ordinance nor would construction activities create a substantial temporary increase in ambient noise levels from construction of the proposed project. Therefore, impacts would be less than significant in this regard.

Table 4.13-6
Construction Noise Levels at the Nearby Sensitive Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:	
	Nearest School Classroom ¹	Nearest Homes to Southeast ²
Site Preparation	61	58
Grading	63	59
Building Construction	62	58
Paving	57	53
Painting	49	45
FTA Construction Noise Threshold¹	80	80
Exceed Thresholds?	No	No
Source: Vista Environmental, <i>Noise Impact Analysis Tentative Tract Map No. 20528 Residential Project, City of Redlands (Noise Study)</i> , August 2, 2023.		
Notes:		
1 = The nearest classrooms to the east are located as near as 900 feet from the center of the project site.		
2 = The nearest homes to the southeast are located as near as 1,350 feet from the center of the project site.		

Operations

The proposed project would consist of the development of a residential community with 117 single-family homes and a passive City Park that would be limited to a parking lot and a trail, which are not anticipated to create noise levels that exceed the existing ambient noise levels on the project site. As such, no further analysis is provided for the proposed City Park. Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways.

Roadway Vehicular Noise Impacts to Nearby Sensitive Receptors

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not include any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project's potential off-site noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.



Policy 9.0v of the City's General Plan defines a significant impact as a 4 dB increase where the existing noise level exceeds the clearly compatible noise standard for the affected land use, or as a 6 dB increase where the existing noise level is below the clearly compatible noise standard for the affected land use. Based on the *Noise Study*, the proposed project's permanent noise increases to the nearby sensitive receptors from the generation of additional vehicular traffic would be as high as a 1.2 dB increase on Tennessee Street south of Pioneer Avenue and would not exceed the increase thresholds detailed in General Plan Policy 9.0v. Therefore, the vehicle trips created from operation of the proposed project would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The California Department of Transportation (Caltrans) *Transportation and Construction Vibration Manual* identifies various vibration damage criteria for different building classes. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. For most commercial and industrial structures that are engineered concrete and masonry buildings, the FTA architectural damage criterion for continuous vibrations is 0.3 inches per second (in/sec) peak particle velocity (PPV). For most residential structures that are non-engineered timber and masonry buildings, the FTA architectural damage criterion for continuous vibrations is 0.2 in/sec PPV. The nearest off-site structure where people may sit, which makes them much more susceptible to vibration, would be the football field stadium bleachers at Citrus Valley High School that are located as near as 14 feet east of the project site. Typical vibration produced by construction equipment is illustrated in Table 4.13-7, Typical Vibration Levels for Construction Equipment.



Table 4.13-7
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inch/sec)	Approximate peak particle velocity at 100 feet (inch/sec) ¹
Large bulldozer	0.089	0.0111
Loaded trucks	0.076	0.0095
Jackhammer	0.035	0.0044
Small bulldozer	0.003	0.0004
Notes: 1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the FTA <i>Transit Noise and Vibration Impact Assessment Guidelines</i> D = the distance from the equipment to the receiver		
Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i>, Table 7-4 Vibration Source Levels for Construction Equipment, September 2018.		

The primary source of vibration during construction would be from the operation of a bulldozer. As shown in Table 4.13-7, a bulldozer would create a vibration level of 0.089 in/sec PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest sensitive receptors (14 feet to the east) would be 0.17 in/sec PPV, which would be below both the Caltrans 0.5 inch per second PPV threshold for damage to structures and the human annoyance threshold of 0.24 inch per second PPV. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- 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?***

Less Than Significant Impact. The proposed project would not expose people residing or working in the project area to excessive noise levels from aircraft. The nearest airport to the project site is San Bernardino International Airport located approximately 1.5 miles northwest of the project site. The *Airport Layout Plan Narrative Report for San Bernardino International Airport*, prepared by Coffman Associates (November 2010) provides the airport noise contours for both the existing (2010) conditions and the ultimate noise contours. Even at ultimate buildout of the airport, the 65 dBA noise contours would barely extend a half mile from the runway, which is aligned away from the project site. As such, the project site is located well outside of the 65 dBA CNEL noise contours of San Bernardino International Airport. A less than significant impact would occur from aircraft noise.

Mitigation Measures: No mitigation measures are required.



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4.14 Population and Housing

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

- a) ***Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

Less Than Significant Impact. A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure.

The proposed project is not anticipated to induce substantial unplanned population growth in the area, either directly or indirectly. Based on the City's average household size of 2.64, the project (117 two-story attached townhome units) would introduce up to 309 new residents.³⁶ Potential population growth impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. The Southern California Association of Governments (SCAG) growth forecasts estimate the City's population to reach 80,800 persons by 2045, representing a total increase of 11,300 persons between 2016 and 2045.³⁷ SCAG's regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction. The project's anticipated resident population (309 persons) would represent 0.38 percent of the 2045 population anticipated for the City.

Although the project would result in direct population growth, the proposed project would not induce substantial unplanned population growth exceeding existing local conditions (0.43 percent increase) and/or regional population projections (0.38 percent of the total projected 2045 population of the City).

As a residential housing development, the project would not generate new permanent jobs. Thus, the project would not result in indirect population growth from potential employees relocating to the City. Therefore, potential population growth associated with the project would represent only a 0.43 percent increase over the City's estimated 2023 population of 71,972 persons.³⁸ As such, although nominal, the project would induce population growth in a local context.

As a result, the project would result in less than significant impacts to unplanned population growth.

³⁶ State of California, *Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2021-2023*, Sacramento, California, May 2023.

³⁷ Southern California Association of Governments, *Current Context: Demographics and Growth Forecasting, Technical Report*, September 3, 2020.

³⁸ *Ibid.*



Mitigation Measures: No mitigation measures are required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently vacant. There are no existing residences on-site. As such, project implementation would not displace existing people or housing. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.



4.15 Public Services

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

- a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

1) ***Fire protection?***

Less Than Significant Impact. The Redlands Fire Department provides fire protection and emergency services to the City. The Redlands Fire Department operates out of four fire stations within the City; the nearest station to the project site is Fire Station 263 located at 10 West Pennsylvania Avenue, approximately 1.2 miles southeast of the project site.

Construction

Construction activities associated with the proposed project would create a temporarily increased demand for fire protection services at the project site. All construction activities would be subject to compliance with all applicable State and local regulations in place to reduce risk of construction-related fire, such as installation of temporary construction fencing to restrict site access and maintenance of a clean construction site. As a result, project construction would not result in the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, and would not adversely impact service ratios, response times, or other Redlands Fire Department performance standards. A less than significant impact would occur in this regard.

Operation

The proposed project would create an increased demand for fire protection services. However, the project would not induce significant population growth and this increase would not result in the need for new or physically altered fire protection facilities; refer to [Section 4.14, *Population and Housing*](#). The proposed project would be required to comply with Redlands Fire Department requirements for emergency access, fire flow, fire protection standards, fire lanes, and other site design/building standards. The proposed project would be required to comply with Redlands Fire Department requirements for emergency access, turn radii, fire flow, fire protection standards, fire lanes, and other site



design/building standards. The project would be subject to Municipal Code Chapter 15.20, *Fire Code*, which adopts by reference the 2022 edition of the California Fire Code. The California Fire Code includes site access requirements and fire safety precautions. In addition, the City would collect a one-time development impact fee in accordance with Municipal Code Chapter 3.60, *Public Facilities Fees*, which is imposed on all new development to help pay its fair share of costs in maintaining and upgrading public facilities, as needed. Payment of these fees would help fund the acquisition, design, and construction of new fire protection facilities and would minimize the project's operational impacts to fire protection services to the greatest extent practicable. Compliance with all Redlands Fire Department and Municipal Code provisions would ensure operational impacts concerning fire protection services are less than significant.

Mitigation Measures: No mitigation measures are required.

2) Police protection?

Less Than Significant Impact. The Redlands Police Department (RPD) provides police protection services to the City. The RPD Administration Office is located at 30 Cajon Street. The RPD Patrol Station is located at 1270 West Park Avenue, approximately 2.3-miles southwest of the project site.

Construction

Construction activities associated with the proposed project would create a temporarily increased demand for police protection services at the project site. However, all construction activities would be subject to compliance with Municipal Chapter 15, *Buildings and Construction*. Specifically, Municipal Code 15.04.010 adopts by reference the 2022 California Building Code (CBC). Chapter 33, *Safeguards During Construction*, of the CBC includes emergency access requirements which would minimize site safety hazards and potential construction-related impacts to police services. As a result, project construction would not result in the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, and would not adversely impact service ratios, response times, or other RPD performance standards. A less than significant impact would occur in this regard.

Operations

Project operations would increase demands for police protection services above existing conditions. However, this increase would not require the construction of any new or physically altered RPD facilities. Project implementation would be subject to compliance with applicable local regulations to reduce impacts to police protection services, such as Municipal Code Chapter 15. Specifically, Municipal Code 15.04.010 adopts by reference the CBC, which includes emergency access requirements which would minimize site safety hazards and potential operational impacts to police services. In addition, the City would collect a one-time development impact fee in accordance with Municipal Code Chapter 3.60, which is imposed on all new development to help pay its fair share of costs in maintaining and upgrading public facilities, as needed. Payment of these fees would help fund the acquisition, design, and construction of new police protection facilities and would minimize the project's operational impacts to police protection services to the greatest extent practicable. Collection of development impact fees and compliance with all Municipal Code provisions would ensure operational impacts concerning police protection services are less than significant.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The project site is located within the boundaries of the Redlands Unified School District (Transitional kindergarten through grade 12). The nearest schools are Citrus Valley High School (800 West Pioneer Ave), adjacent to the east of the project site; Lugonia Elementary School (202 East Pennsylvania Avenue),



approximately 1.6 miles southeast of the project site; and Clement Middle School (501 East Pennsylvania Avenue), approximately 1.9 miles southeast of the project site.

As indicated in Section 4.14, the project includes the development of 117 two-story motor court homes, which could generate additional students within the project area. Although the project would result in an increased demand for Redlands Unified School District services, the project would be required to comply with Senate Bill (SB) 50 requirements, which allow school districts to collect impact fees from developers of new residential projects. According to Section 65996 of the California Government Code, payment of statutory fees is considered full mitigation for new development projects. Thus, upon payment of required fees by the project applicant consistent with existing State requirements, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

4) Parks?

Less Than Significant Impact. The City Facilities and Community Services Department currently operates and maintains 18 parks within the City, comprising over 253-acres of land. The project would include nine open space lots, comprising a total area of 3.01 acres, as well as a paved walking trail, seating, and landscaping. In addition, the City would collect a one-time development impact fee in accordance with Municipal Code Chapter 3.60, which is imposed on all new development to help pay its fair share of costs in maintaining and upgrading public facilities, as needed. In addition, the project would be required to pay parkland fees pursuant to City of Redlands Municipal Code Chapter 3.32, *Open Space and Park Fees*, which requires the collection of open space and parks fees from applicants for development projects. The fees collected are used by the City to acquire, develop, improve, and expand open space and park lands identified in the City's open space and park lands acquisition and development capital improvement plan in accordance with amounts established by resolution of the City Council.

Payment of these fees would help fund the acquisition, design, and construction of new park facilities and would minimize the project's operational impacts to parks to the greatest extent practicable. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. Other public facilities that could potentially be impacted by the proposed project include library services. The City operates and maintains A.K. Smiley Public Library, located at 125 West Vine Street, which is approximately 2.5-miles southeast of the project site. The project's nominal population increase is not anticipated to result in a significant impact on library services. Nonetheless, the City would collect a one-time development impact fee in accordance with Municipal Code Chapter 3.60, which is imposed on all new development to help pay its fair share of costs in upgrading public facilities, as needed. Payment of these fees would help fund the acquisition, design, and construction of new library facilities and would minimize the project's operational impacts to library facilities to the greatest extent practicable. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.



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4.16 Recreation

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less Than Significant Impact. Refer to Response 4.15(a)(4).

Mitigation Measures: No mitigation measures are required.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less Than Significant Impact. Refer to Response 4.15(a)(4).

Mitigation Measures: No mitigation measures are required.



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4.17 Transportation

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

This section is primarily based upon the following technical studies.

- *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, prepared by Michael Baker International, dated September 26, 2023 ([Appendix I1, Traffic Study](#)), and;
- *TTM No. 20528 Vehicle Miles Traveled (VMT) Assessment Technical Memorandum*, prepared by Michael Baker International, dated July 21, 2023 ([Appendix I2, VMT Assessment](#)).

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

Less Than Significant Impact. On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law, which initiated a process to change transportation impact analyses completed in support of CEQA documentation. SB 743 eliminates level of service (LOS) as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, vehicle miles traveled (VMT). A VMT-based analysis is thus provided below, in Response 4.17(b). However, the City's General Plan includes policies that specify level of service (LOS) standards (Policies 5.20a through 5.20c). Thus, the following analysis evaluates the project's potential to conflict with adopted LOS performance standards near the project site.

The City of Redlands does not have their own traffic study guidelines as it pertains to level of service (LOS) traffic studies. As such, the County of San Bernardino's Guidelines have been utilized for the preparation of the project's Traffic Study. According to the County's Guidelines, an LOS traffic study may not be required if the AM or PM peak hour trip generation is less than 100 vehicle trips. However, since the proposed project trip generation exceeds 100 peak hour trips during the PM peak hour, the project's Traffic Study was prepared in compliance with the City of Redlands Growth Measure U Growth Management Initiative to address the potential effects of the addition of project traffic at study area intersections under Existing plus Project traffic conditions in comparison to Existing traffic operations. Measure U is a local growth management initiative and contains policies for traffic LOS within the City of Redlands. Per Measure U, the City has adopted LOS C or better as acceptable operating conditions for intersections during the peak hour; LOS D has been established as the minimum acceptable conditions for Caltrans facilities.

The key measures of effectiveness for this study are LOS and average vehicle delay in seconds per vehicle.

In accordance with the Measure U Growth Management Initiative, the Traffic Study analysis scenarios are defined as follows:



- Existing Conditions
- Existing With Project Conditions

STUDY AREA

The following six (6) intersections have been identified in coordination with City staff as potential locations impacted by the proposed project. Within the study area, all study area intersections are within the jurisdiction of the City of Redlands, with the exception of the intersection of W San Bernardino Avenue & I-210 Northbound Ramps/Tennessee Street (#1), which falls under Caltrans jurisdiction. It should also be noted that Intersection #3 does not exist without the project and is not analyzed under the Existing condition:

1. W. San Bernardino Avenue & I-210 Northbound Ramps/Tennessee Street
2. W. San Bernardino Avenue & Tennessee Street
3. W. Pioneer Avenue & Street A (future intersection)
4. W. Pioneer Avenue & Tennessee Street
5. W. Pioneer Avenue & Texas Street
6. Domestic Avenue & Texas Street

Traffic counts were collected on Wednesday June 7th, 2023 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data collected included pedestrian, bicycle, passenger cars, and heavy vehicle counts. The counts used in this analysis represent the peak hour of each period (AM Peak Hour and PM Peak Hour). Detailed volume development information is provided in Appendix C of [Appendix I1](#). Exhibit 4-3 of [Appendix I1](#) shows the Existing Peak Hour traffic volumes.

LOS METHODOLOGY

LOS is commonly used as a qualitative description of intersection operation and is based on the type of traffic control and experienced delay at the intersection. The *Highway Capacity Manual* (HCM) 6th Edition published by the Transportation Research Board in 2016 was utilized in this analysis to determine the operating LOS at each of the study intersections. LOS can range from LOS A (free-flow conditions) to LOS F (severely congested conditions). Delay in seconds per vehicle (sec/veh) passing through the intersection is the primary measure of effectiveness for signalized, stop-controlled, and roundabout intersections.

The corresponding average stopped delay range experienced per vehicle per LOS is shown in [Table 4.17-1](#), *HCM Intersection Level of Service Criteria*.

Table 4.17-1
HCM Intersection Level of Service Criteria

Level of Service	Signalized Intersection Average Delay (seconds/vehicle)	Two-Way Stop-Controlled, All-Way Stop-Controlled, and Roundabout Control Delay (seconds/vehicle)
A	$x < 10$	$x < 10$
B	$10 < x < 20$	$10 < x < 15$
C	$20 < x < 35$	$15 < x < 25$
D	$35 < x < 55$	$25 < x < 35$
E	$55 < x < 80$	$35 < x < 50$
F	$80 < x$	$50 < x$

Notes: If the volume-to-capacity ratio (v/c) > 1.0, LOS = F.



Source: Michael Baker International, *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, July 21, 2023; refer to [Appendix I1](#).

LOS is reported for the average stopped delay per vehicle for the overall intersection (all movements) for signalized intersections, all-way stop-controlled, and roundabout intersections. For one-way or two-way stop-controlled intersections, LOS is reported for the worst stop-controlled approach. LOS and delay for the intersection analysis was conducted with *Synchro/SimTraffic* (version 11) software. HCM 6th Edition results were reported.

PERFORMANCE CRITERIA

As stated in Measure U, the City has adopted LOS C or better as acceptable operating conditions for intersections during the peak hour. LOS D has been established as the minimum acceptable conditions for Caltrans facilities. In accordance with the Measure U, the following guiding policies are used for level of service standards for traffic operations:

- General Plan Policy 5.20a – Maintain LOS C or better as the standard at all intersections presently operating at LOS C or better.
- General Plan Policy 5.20b – Within the area identified in General Plan Figure 5-1, including the unincorporated County area identified on General Plan Figure 5- 1 as the “donut hole”, maintain LOS C or better; however, accept a reduced LOS on a case-by-case basis upon approval by four-fifths (4/5ths) vote of the total authorized membership of the City Council.
- General Plan Policy 5.20c – Where the current LOS at a location within the City of Redlands is below the LOS C standard, no development project shall be approved that cannot be mitigated so that it does not reduce the existing level of service at the location except as provided in Policy 5.20b.

EXISTING CONDITIONS

Existing Intersections Level of Service

Table 4.17-2, *Existing Intersection Analysis Results*, presents existing intersection LOS conditions during a typical weekday. As shown, all intersections are presently operating at a satisfactory LOS C or better during the AM and PM peak hour. The Caltrans intersection operates at overall acceptable LOS D or better during the AM and PM peak hour.

Table 4.17-2
Existing Intersection Analysis Results

ID	Intersection	Control Type	Existing Year 2022			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	W. San Bernardino Avenue & I-210 Northbound Ramps/Tennessee Street	SIG	C	26.6	D	41.7
2	W. San Bernardino Avenue & Tennessee Street	OWSC	C	20.1	B	12.7
3	W. Pioneer Avenue & Street A (future intersection)	<i>Intersection Does Not Exist Without Project</i>				
4	W. Pioneer Avenue & Tennessee Street	OWSC	C	15.2	B	11.3
5	W. Pioneer Avenue & Texas Street	SIG	C	23.3	B	10.8
6	Domestic Avenue & Texas Street	TWSC	A	9.7	A	8.8

Source: Michael Baker International, *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, September 26, 2023; refer to [Appendix I1](#).

Notes:

- 1) SIG = Signalized; AWSC = All-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; OWSC = One-Way Stop-Controlled.



- 2) Overall intersection LOS provided for signalized and AWSC intersections. Worst-approach LOS provided for TWSC and OWSC intersections.
- 3) City Intersections – LOS C or better is the preferred acceptable operation at City intersections. Bold text with yellow highlight indicates LOS D, E, or F.
- 4) Caltrans Intersections – LOS D or better is the acceptable operation at Caltrans intersections. No intersections operate at LOS E or F.
- 5) Delay shown in average seconds per vehicle.

Project Trip Generation and Distribution

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) was used to forecast vehicle trips generated by the proposed project. [Appendix I1](#) Table 5-1 shows the trip generation rate for Single-Family Detached Housing land use (ITE Code 210). [Table 4.17-4, Trip Generation](#) summarizes the vehicular trips forecast to be generated by the project. As shown, the project is anticipated to generate approximately 1,166 daily trips with 86 AM Peak Hour trips and 115 PM Peak Hour trips. The project is assumed to be constructed in one phase.

**Table 4.17-4
Trip Generation**

Land Use	ITE Code	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
				Volume	In	Out	Volume	In	Out
Single-Family Detached	210	117 DU	1,166	86	21	65	115	73	42

Notes: DU = dwelling units

Source: Michael Baker International, *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, September 26, 2023; refer to [Appendix I1](#).

EXISTING YEAR 2022 WITH PROJECT CONDITION

As shown in [Table 4.17-5, Existing With Project Intersection Analysis Results](#), all City intersections would operate at acceptable LOS C or better during the AM and PM Peak Hours under Existing With Project conditions. The Caltrans intersection operates at overall acceptable LOS D or better during both the AM and PM peak hours. Therefore, no adverse effects on operations are projected. Impacts would be less than significant in this regard.



Table 4.17-5
Existing With Project Intersection Analysis Results

ID	Intersection	Control Type	Existing Year				Existing Year With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W. San Bernardino Avenue & I-210 Northbound Ramps/Tennessee Street	SIG	C	26.6	D	41.7	C	27.4	D	45.5
2	W. San Bernardino Avenue & Tennessee Street	OWSC	C	20.1	B	12.7	C	22.5	B	13.0
3	W. Pioneer Avenue & Street A (future intersection)	OWSC	<i>Intersection Does Not Exist Without Project</i>				B	12.2		12.1
4	W. Pioneer Avenue & Tennessee Street	OWSC	C	15.2	B	11.3	C	17.4	B	12.6
5	W. Pioneer Avenue & Texas Street	SIG	C	23.3	B	10.8	C	23.8	B	11.1
6	Domestic Avenue & Texas Street	TWSC	A	9.7	A	8.8	A	9.8	A	8.9

Source: Michael Baker International, *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, September 26, 2023; refer to [Appendix I1](#).

Notes:

- 1 = SIG = Signalized; AWSC = All-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; OWSC = One-Way Stop-Controlled.
- 2 = Overall intersection LOS provided for signalized and AWSC intersections. Worst-approach LOS provided for TWSC and OWSC intersections.
- 3 = City Intersections – LOS C or better is the preferred acceptable operation at City intersections. Bold text with yellow highlight indicates LOS D, E, or F.
- 4 = Caltrans Intersections – LOS D or better is the acceptable operation at Caltrans intersections. No intersections operate at LOS E or F.
- 5 = Delay shown in average seconds per vehicle.

TRANSIT FACILITIES

The study area is currently served by Omnitrans, a public transit agency serving the City and County, with bus service in the study area along San Bernardino Avenue and Lugonia Avenue via Bus Route 15. The closest bus stop is located approximately 0.5-mile away at the intersection of San Bernardino Avenue and Texas Street.

The project would not induce significant population growth and is consistent with the anticipated land use for the project site; refer to [Section 4.14, *Population and Housing*](#). As a result, it is anticipated that existing transit service in the project area would be able to adequately accommodate the increase in project-generated transit trips. Thus, project impacts on existing and future transit services in the project area are expected to be less than significant.

BICYCLE AND PEDESTRIAN FACILITIES

No bicycle lanes currently exist within the project area; however, future bike lanes are planned along San Bernardino Avenue. No sidewalk currently exists within the project area with the exception of the sidewalk that runs along the north side of San Bernardino Avenue adjacent to Citrus Valley High School.

The project would not induce significant population growth and is consistent with the anticipated land use for the project site; refer to [Section 4.14](#). As a result, it is anticipated that existing bicycle and pedestrian facilities in the project area



would be able to adequately accommodate the increase in project-generated trips. Thus, project impacts on existing and future bicycle and pedestrian facilities in the project area are expected to be less than significant.

CONCLUSION

While the LOS analysis indicates that off-site roadway operational improvements are not required, the proposed project would construct roadway adjacent network improvements associated with the development operations including:

- Half-width construction along Pioneer Avenue project frontage.
- Half-width construction along Domestic Avenue project frontage.
- Construct a one-way-stop-controlled driveway to create a new T-intersection along Pioneer Avenue, west of the intersection of Pioneer Avenue and Tennessee Street. At the exiting driveway, allow right and left turns movements which are stop-controlled.
- Construct a driveway along Domestic Avenue, west of the intersection of Domestic Avenue and Texas Street.

The project would widen Pioneer Avenue along the project frontage to a total width of approximately 44 feet from centerline to right-of-way. On the north side of the street, this width would provide a 5-foot sidewalk and approximate 6-foot landscape strip. On Domestic Avenue, along the project frontage, a total width of approximately 30 feet from centerline to right-of-way would be provided. On the south side of the street, this width would provide a 6-foot sidewalk and 4-foot landscape strip. North of the project frontage, on Domestic Avenue, a surface parking lot would be provided for guests. Domestic Avenue would be constructed from the project limits to the intersection of Domestic Avenue and Texas Street (#6), by a development to the north of the project site.

For the purposes of the project's Traffic Study, the Pioneer Avenue and Street A (#3) intersection was analyzed without turn lanes into the site (eastbound left turn lane and a westbound right turn lane) which is consistent with the proposed site plan. These improvements were assumed in the Existing With Project scenario traffic operations analysis.

As there are no adverse effects at any of the study intersections with the addition of project related traffic, no other improvements are needed or proposed. A less than significant impact would occur.

Mitigation Measures: No mitigation measures are required.

b) *Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

Less Than Significant Impact. As discussed, SB 743 eliminates LOS as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, VMT. As a result, the State has shifted from measuring a project's impact to drivers (LOS) to measuring the impact of driving (VMT) as it relates to achieving State goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through active transportation.

The City utilizes the San Bernardino County Transportation Authority VMT Screening Tool (Screening Tool). The Screening Tool allows users to input an assessor's parcel number to determine if a project's location meets one (1) or more of the screening thresholds for land use projects identified in the Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory).

Each of the applicable screening thresholds were evaluated to determine if the proposed project would be expected to cause a less than significant impact to VMT without requiring a more detailed VMT analysis. If the screening thresholds are not met, then project-generated VMT are calculated and compared to the applicable VMT threshold as identified in the *City of Redlands CEQA Assessment VMT Analysis Guidelines* (City Guidelines). The City Guidelines provides details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is



anticipated to result in a less than significant impact without conducting a more detailed analysis. Screening thresholds are broken into the following types described below. A land use project need only meet one (1) of these screening thresholds to result in a less than significant impact. Based on the VMT Analysis, the project does not meet any of the VMT screening criteria; therefore, a VMT Assessment is required.

Project Trip Generation

In order to calculate vehicle trips to be generated by the proposed projects, trip generation rates were taken from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition). The proposed project is estimated to generate approximately 1,166 daily trips with 86 AM peak hour trips (21 in / 65 out) and 115 PM peak hour trips (73 in / 42 out).

VMT Screening Criteria

The primary resource for this assessment is the City of Redlands CEQA Assessment VMT Analysis Guidelines (June 2020) (City Guidelines), and the San Bernardino County Transportation Impact Study Guidelines (July 2019) (County Guidelines). Based on the City Guidelines, land use projects that meet any of the screening thresholds based on size, location, project type, proximity to transit or trip-making potential identified in [Appendix I2](#) Table 4 are presumed to result in a less than significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment. The project meets the VMT Screening Criteria for "Project Type," which ask the following:

"Does the project generate less than 3,000 MT CO₂e per year? Including projects such as:

- **Single Family Res. – 167 DU's or fewer**
- *Multifamily Res. (1-2 stories) – 232 DU's or fewer*
- *Multifamily Res. (3+ stories) – 299 DU's or fewer*
- *Office – 59,100 square feet or less*
- *Local Serving Retail Center – 112,400 SF or less*
- *Warehousing – 463,600 SF or less*
- *Light Industrial – 74,600 SF or less"*

As the project proposes the construction of 117 single family dwelling units, which is less than the screening threshold of 167 dwelling units, a detailed project specific VMT calculation is not required.

Based on the above information, the VMT evaluation shows that the project meets the screening criteria for Project Type, and therefore, a project specific VMT assessment is not required. The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- c) ***Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

Less Than Significant Impact. Final project site plans would be subject to City review and approval, which would ensure that project driveway intersections and internal circulation are safe, with adequate sight distance, driveway widths and stop signs where necessary for entering and exiting the site. This would prevent any impacts due to a design feature. The project site would not create hazards due to incompatible uses because the project would introduce additional residential uses to the project area. Therefore, impacts related to hazardous geometric design features or incompatible uses would be less than significant.

Mitigation Measures: No mitigation measures are required.



d) ***Result in inadequate emergency access?***

Less Than Significant Impact with Mitigation Incorporated. As stated, two entry points to the site are proposed: one from West Pioneer Avenue and one from West Domestic Avenue. The Redlands Fire Department would review the proposed vehicular circulation network against the Department's requirements related to fire access and turning radius requirements to ensure that proper emergency access and maneuvering of emergency vehicles can be accommodated.

Further, should partial or full lane closures be required as part of project construction activities, implementation of a TMP would minimize congestion and ensure safe travel, including emergency access in the project vicinity; refer to Mitigation Measure TRA-1. As such, project implementation would not interfere with the implementation of an emergency response plan or emergency evacuation plan. With implementation of Mitigation Measure TRA-1, impacts would be less than significant.

Mitigation Measures:

TRA-1 Traffic Management Plan. Prior to issuance of grading permits, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Redlands Traffic Engineer. The TMP shall include measures to minimize potential safety impacts during the short-term construction process if partial or full lane closures are required. The TMP shall specify that one direction of travel in each direction on adjacent roadways (West Pioneer Avenue and West Domestic Avenue) must always be maintained during project construction activities. If full lane closures are required and one direction of travel in each direction cannot be maintained, the TMP shall identify planned detours. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and use of construction flagperson(s) to direct traffic during heavy equipment use. The TMP shall be incorporated into project specifications for verification prior to final plan approval.



4.18 Tribal Cultural Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		✓		
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓		

As of July 1, 2015, California AB 52 was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Section 21074 of AB 52 also defines a new category of resources under CEQA called “tribal cultural resources.” Tribal cultural resources are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is either listed on or eligible for the California Register of Historical Resources (CRHR) or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

- 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:

- 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Less Than Significant Impact with Mitigation Incorporated. As detailed in Response 4.5(a), no historic resources were identified within the project site boundaries during the field survey conducted as part of the Cultural Resources Assessment. Although findings were negative for cultural resources on the surface of the project site, ground disturbing activities could reveal historic-period artifacts or structural or building elements. As such, potential significant impacts to buried historic-period resources could result in this regard. To minimize potential impacts resulting from inadvertent discoveries, the project proposes to implement Mitigation Measures CUL-1 through CUL-8. Mitigation Measures CUL-1 through CUL-8 mandate that the project applicant engage a qualified archaeologist and tribal monitor who will inspect the site following grubbing/ground-clearing and prior to any grading or ground disturbance. This step is taken to ensure that any potential historical resources that may be uncovered during ground-disturbing activities are properly documented and assessed. Notably, Mitigation Measure CUL-6 outlines a procedure in the event of an inadvertent discovery of a cultural resource during construction. If such a discovery occurs, construction activities would halt immediately. The project Archaeologist and tribal monitor would be promptly contacted, and this expert would determine the appropriate measures to mitigate impacts to the significance of the resource. These measures could include capping, avoidance, or other suitable actions.

With the implementation of Mitigation Measures CUL-1 through CUL-8, impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would be less than significant.

Mitigation Measures: Refer to Mitigation Measures CUL-1 through CUL-8 in Section 4.5, Cultural Resources.

- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less Than Significant Impact with Mitigation Incorporated. In compliance with AB 52, on November 22, 2023 the City distributed letters notifying Native American Tribes that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. Per AB 52, tribal governments have 30 days to respond to the City's request for consultation.

As part of the AB 52 consultation process, tribal representatives from the Agua Caliente Band of Cahuilla Indians and Morongo Band of Mission Indians requested copies of cultural resource documents for their review. Representatives from the Gabrielino Band of Mission Indians – Kizh Nation, Morongo Band of Mission Indians, and San Manuel Band of Mission Indians requested standard mitigation measures for the protection tribal cultural resources. In addition, the Morongo Band of Mission Indians requested active monitoring of ground disturbing activities with the potential to impact tribal cultural resources.

To avoid impacting or destroying tribal cultural resources that may be inadvertently unearthed during the project's ground disturbing activities, the project proposes to implement Mitigation Measures CUL-1 through CUL-8. Mitigation Measures CUL-1 through CUL-8 were developed in consultation with the Morongo Band of Mission Indians and would protect tribal cultural resources. With implementation of Mitigation Measures CUL-1 through CUL-8, impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measures CUL-1 through CUL-8 in Section 4.5, Cultural Resources.



4.19 Utilities and Service Systems

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

- a) ***Require or result in the relocation or construction of new or expanded water, or 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.

Water

The proposed development would be served by the Redlands Municipal Utilities and Engineering (MUED) for domestic (drinking) water supply services. Private residential, irrigation, and fire lines would be constructed on-site to connect to existing water facilities in Pioneer Avenue.

Payment of standard water connection fees and ongoing user fees would ensure that the project's impacts on existing water facilities are adequately offset. The proposed project would not induce substantial unplanned population growth; refer to Section 4.11, *Land Use and Planning*, and Section 4.14, *Population and Housing*. Thus, it is not anticipated that project implementation would require construction of new or expanded water facilities. A less than significant impact would occur in this regard.

Wastewater

Sewer service for the proposed project would be provided by Redlands MUED. The Redlands Wastewater Treatment Facility is located on approximately 50 acres and has a rated treatment capacity of 9.5 million gallons per day annual



dry weather flow. Approximately 6 million gallons of that capacity is in a membrane bioreactor system, with the remaining 3.5 million gallons is in a conventional activated sludge process.³⁹

On-site sewer laterals would connect to existing sewer facilities in Domestic Avenue. Compliance with the required sewer connections and wastewater discharge rate would be verified prior to issuance of building permits by the City of Redlands Public Works Department.

The project would be required to pay standard connection fees, ongoing user fees, as well as a Sewer Facility Charge (i.e., a one-time charge imposed on all new construction or expanded structures within the MUED service area). Payment of these fees would fund improvements and upgrades to surrounding sewer lines as needed, and would offset the project's increase in demand for wastewater collection services. Following compliance with relevant laws, ordinances, and regulations, it is not anticipated that project implementation would require construction of new or expanded wastewater facilities that would result in a significant environmental effect. Impacts would be less than significant in this regard.

Stormwater

The project would construct an on-site detention basin with a planned drainage system which would collect on-site runoff and convey the flows to the south. Storm drains and the proposed underground detention basin would be operated and maintained by the City of Redlands. All on-site stormwater would be captured in accordance with MS4 permit requirements; refer to Section 4.10, Hydrology and Water Quality.

It is anticipated the proposed drainage system would adequately provide drainage treatments, detention, and conveyance in accordance with City of San Rafael and regional water board requirements. Construction of any improvements relative to stormwater would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations. Impacts in this regard would be less than significant.

Dry Utilities

The project site would be served by Southern California Edison (SCE) for electricity services and Southern California Gas (SoCalGas) for natural gas services. The project would involve constructing new private on-site dry utility lines associated with such services and would connect to existing off-site service lines, with the final configuration of such service lines to be approved by SCE and SoCalGas. Payment of standard utility connection fees and ongoing user fees would ensure impacts to these utility services are adequately offset. In addition, the project would comply with Energy Building Regulations adopted by the California Energy Commission (CCR Title 24) and any adopted City of Redlands energy conservation requirements.

The project's potential environmental impacts for construction in this regard are analyzed throughout this Initial Study. Construction of the project's dry utilities would also be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations. As such, project impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

- b) ***Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

Less Than Significant Impact: As stated, water supplies for the project site would be provided by City of Redlands MUED.

³⁹ City of Redlands. *Wastewater Treatment*. <https://www.cityofredlands.org/post/wastewater-treatment>. Accessed July 30, 2023.



According to the 2020 Urban Water Management Plan (UWMP), the City has four (4) sources of water to provide to its service area: purchased imported water from the State Water Project; groundwater from the Bunker Hill Subbasin and the Yucaipa Subbasin; surface water from the Mill Creek and Santa Ana River watersheds; and recycled water.⁴⁰ The 2020 UWMP indicates adequate water supply are anticipated to be available under a single dry-year supply and demand scenario, and multiple dry-year supply and demand scenarios through 2045. The UWMP water supply predictions is based on existing General Plan designations and accounts for increased demand as growth within the City occurs. The project site has a General Plan land use designation of Commercial/Industrial, and a zoning designation of Industrial (EV-SRP). The project would require a General Plan Amendment to change the site's designation to Medium Density Residential, which allows for densities of 8 to 15 dwelling units per acre (du/ac). The project would also require a Zone Change to Specific Plan No. 64 (Bergamot Specific Plan), and a Specific Plan Amendment to incorporate the project site in the Bergamot Specific Plan boundary. Although the project involves a land use change, the proposed project would not induce substantial unplanned population growth; refer to Section 4.11, *Land Use and Planning*, and Section 4.14, *Population and Housing*. Further, payment of standard water connection fees and ongoing user fees would ensure that the project's impacts on existing water facilities are adequately offset.

The Water Supply Reliability Assessment in the UWMP concludes that the City has adequate supplies to meet projected demands under multiple dry year scenarios, taking into account the recent prolonged drought.⁵¹ The proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources. Therefore, impacts associated with water supplies would be less than significant.

Mitigation Measures: No mitigation measures are required.

- c) ***Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

Less Than Significant Impact. According to the City's 2035 General Plan Livable Community Element, most wastewater generated by sewered development within the project site is treated at the City's wastewater treatment plant located on the south side of the Santa Ana River wash at Nevada Street. The treatment plant has a rated treatment capacity of 9.5 million gallons per day annual dry weather flow.⁴¹ The treatment facility has adequate capacity to allow for anticipated growth of the City over the next 20 years.

Although the project involves a land use change, the proposed project would not induce substantial unplanned population growth; refer to Section 4.11, *Land Use and Planning*, and Section 4.14, *Population and Housing*. Further, payment of standard wastewater connection fees and ongoing user fees would ensure that the project's impacts on existing wastewater facilities are adequately offset.. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- d) ***Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Less Than Significant Impact. Waste collection services within the City are provided by the Facilities and Community Services Department (FCSD). Solid waste originating from Redlands is primarily disposed of by the FCSD at the California Street Landfill and by the County of San Bernardino at the San Timoteo Sanitary Landfill. Both landfills are within City limits. The San Timoteo Sanitary Landfill is located approximately 4.8 miles to the southwest of the site. The California Street Landfill, located approximately 1.0 mile northwest, is the closest landfill to the site. The California

⁴⁰ Water Systems Consulting, Inc., 2020 IRUWMP, Part 2 Chapter 4, Redlands Urban Water Management Plan, June 30, 2021.

⁴¹ City of Redlands, *Wastewater Treatment*. <https://www.cityofredlands.org/post/wastewater-treatment>. Accessed July 26, 2023.



Street Landfill has a maximum capacity of 11,400,000 cubic yards, with a remaining capacity of approximately 5,168,000 cubic yards. The California Street Landfill accepts a maximum of 829 tons per day, or 302,858 tons per year. The estimated closure year for the California Street Landfill is 2042.⁴²

Construction

The proposed project would result in development of 117 two-story motor court homes along with associated infrastructure, recreational amenities, and landscaping. Due to the limited scale of the project, construction activities are not anticipated to generate significant quantities of solid waste with the potential to affect the capacity of regional landfills.

Further, construction activities would be subject to conformance with relevant Federal, State, and local requirements related to solid waste disposal. The project would be required to demonstrate compliance with the 2022 Green Building Code, which includes design and construction measures that act to reduce construction-related waste through material conservation and other construction-related efficiency measures. The project would also be required to comply with City adopted Ordinance 2544, which requires all construction development to adhere to construction waste diversion and recycling requirements and also facilitates the City's compliance with State recycling mandates (Assembly Bill 939) for ensuring the recycling of construction and demolition debris. Compliance with the California Integrated Waste Management Act of 1989 (AB 939) requires all California cities to reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible and requires that at least 50 percent of waste produced is recycled, reduced, or composted.

The project, as a condition of approval with the City, would also be required to submit a Site and Building Recycling Plan outlining the following:

- The location and design of all existing and proposed recycling and trash enclosures;
- Site access points for solid waste and recycling;
- Collection vehicles and a design of the grading of the site;
- Operational criteria for the proposed use of the property; and,
- Capacity requirements for the waste generation of buildings.

Construction waste generated that cannot be recycled would likely be disposed at the California Street Landfill due to its proximity to the project site. The California Street Landfill is not expected to reach its total maximum permitted disposal capacity during the project's construction period, and construction waste generated by the project is not anticipated to cause this landfill to exceed its maximum permitted daily disposal volume. Because the project would generate a relatively small amount of solid waste per day, the California Street Landfill would have sufficient daily capacity to accept solid waste generated by the project. Construction impacts relative to solid waste generation would be less than significant.

Operation

Based on CalRecycle's waste generation rates for residential development (12.23 pounds of waste per household per day), project operations are expected to generate approximately 0.72 tons per day, or approximately 262.8 tons per year.⁴³ This represents less than one percent of the maximum daily permitted throughput capacity identified for the California Street Landfill. As such, the project is not anticipated to generate solid waste in excess of State or local

⁴² CalRecycle. *SWIS Facility/Site Activity Details – California Street Landfill (36-AA-0017)*. Accessed July 26, 2023. Available at <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1855?siteID=2637>.

⁴³ California Department of Resources Recycling and Recovery, *Estimated Solid Waste Generation Rates*, <https://www2.calrecycle.ca.gov/wastecharacterization/general/rates>, accessed July 26, 2023.



standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

e) ***Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?***

Less Than Significant Impact. Refer to Response 4.19(d) above. The proposed project would be required to comply with all applicable Federal, State, and local statutes and regulations related to solid waste, including AB 939 and the City's solid waste reduction programs. Specifically, the project would be subject to AB 939, which requires that at least 50 percent of waste produced be recycled, reduced, or composted. Further, considering the availability of landfill capacity as described above, the proposed project's solid waste disposal needs can be adequately met without a significant impact on the capacity of area landfills. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.



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4.20 Wildfire

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

a) ***Substantially impair an adopted emergency response plan or emergency evacuation plan?***

No Impact. According to the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map Viewer, the project site is not located in or near a State Responsibility Area (SRA) or a fire hazard severity zone (FHSZ); however, the site is designated as a Local Responsibility Area.⁴⁴ The closest SRA is located approximately 3.4 miles to the east of the project site; the closest FHSZ is located approximately 2.6 miles to the northeast of the project site. Therefore, the site is not considered to have a high potential for the risk of wildfire occurrence.

The proposed project would be required to comply with the City's Emergency Plan and Hazard Mitigation Plan and the emergency access requirements of the California Fire Code which include, but are not limited to, providing access with adjoining uses and providing suitable access for emergency vehicles. The project site is serviced by Redlands Fire Station No. 263 located approximately 1 mile southeast of the site at 10 W. Pennsylvania Avenue. No off-site improvements are proposed that would impair an adopted emergency evacuation or response plan or emergency evacuation plan. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) ***Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

No Impact. Refer to Response 4.20(a) above. The project site is not located in or near an SRA or FHSZ nor does it support lands classified as very high fire hazard severity zones. The site is not adjacent to wildlands subject to wildfires. The project site has a relatively flat topography and slopes gently to the north; no steep slopes are present on or adjacent to the property that would potentially contribute to the rapid spread of wildfire.

Urban levels of fire protection would be provided to the project area upon project completion. In addition, the project would adhere to building codes and any conditions included through review by the fire department. For such reasons, combined with conditions on-site and on adjacent lands, the project, due to slope, prevailing winds, and other factors,

⁴⁴ California Department of Forestry and Fire Protection, *FHSZ Viewer*, <https://egis.fire.ca.gov/FHSZ/>, accessed July 26, 2023.



would not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire within such areas. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

- c) ***Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

No Impact. Refer to Response 4.20(a) above. The project site is not located in or near an SRA and does not contain lands classified as very high fire hazard severity zones. The proposed project includes construction of 117 two-story motor court homes distributed along two new public streets ("Street A" and "Street B"), open space lots, stormwater improvements, parking, recreational amenities, landscaping, and associated utilities. Access would be provided from West Pioneer Avenue and West Domestic Avenue, and all circulation improvements would be designed and constructed consistent with City design and engineering standards. Installation and future maintenance of the proposed facilities would not increase the risk of fire because the proposed residential uses on-site would not include any features that would have the potential to exacerbate fire risk or result in temporary or ongoing impacts to the environment. No new fuel breaks, roads, power lines, or other utilities are proposed with the project. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

- d) ***Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

No Impact. Refer to Response 4.20(a) above. The project site is not located in or near an SRA or FHSZ. The project site is generally flat; no steep slopes are located adjacent to the property. Further, the site is not located in an area susceptible to the risk of landslides (refer to Section 4.7, *Geology and Soils*). All grading and construction would occur in conformance with City engineering requirements and State and local regulations to ensure that the risk of downstream flooding is minimized.

Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes within such areas. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.



4.21 Mandatory Findings of Significance

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

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

Less Than Significant Impact with Mitigation Incorporated. As concluded in Section 4.4, Biological Resources, to reduce impacts to special status wildlife, the project would implement Mitigation Measures BIO-1 through BIO-3. With implementation of these mitigation measures, biological impacts would be reduced to a less than significant level.

As indicated in Section 4.5, Cultural Resources and Section 4.18, Tribal Cultural Resources, no archaeological or tribal cultural resources occur on-site. Should previously undiscovered cultural or tribal cultural resources be uncovered during project ground-disturbing activities, implementation of Mitigation Measures CUL-1 through CUL-8 would reduce the project's potential effects to less than significant levels.

As analyzed, the project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California prehistory.

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

Less Than Significant Impact with Mitigation Incorporated. A significant impact may occur if a proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but



would be significant when viewed together. As concluded in Section 4.1 through Section 4.20, the proposed project would not result in any significant impacts in any environmental categories with implementation of the City's Standard Conditions of Approval as well as project mitigation measures. Implementation of Standard Conditions of Approval and mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects. Impacts would be less than significant with mitigation incorporated in this regard.

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

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, transportation, and other issues. As concluded in these previous discussions, the proposed project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework and implementation of Standard Conditions of Approval and project mitigation measures. Impacts would be less than significant with mitigation incorporated in this regard.



5.0 References

CalEEMod version 2022.1.1.6.

California Air Resources Board, *Air Quality and Meteorological Information*, <https://www.arb.ca.gov/aqmis2/aqdselect.php?tab=specialrpt>, accessed July 3, 2023.

California Department of Finance Demographic Research Unit, *Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2023*, Sacramento, California, May 2023.

California Department of Forestry and Fire Protection, *FHSZ Viewer*, <https://egis.fire.ca.gov/FHSZ/>, accessed June 3, 2023.

California Department of Resources Recycling and Recovery, *Estimated Solid Waste Generation Rates*, <https://www2.calrecycle.ca.gov/wastecharacterization/general/rates>, accessed July 26, 2023.

_____, *Green Building Materials*, <https://www.calrecycle.ca.gov/greenbuilding/materials#Material>, accessed July 5, 2023.

_____, *SWIS Facility/Site Search*, <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>, accessed July 26, 2023.

California Department of Transportation, *List of Eligible and Officially Designated State Scenic Highways*, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed May 16, 2023.

California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, <https://gis.water.ca.gov/app/bp-dashboard/final/>, accessed June 3, 2023.

California Energy Commission, *Final 2021 Integrated Energy Policy Report Volume IV California Energy Demand Forecast*, February 2022.

_____, *2021 Integrated Energy Policy Report*, <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>, accessed July 14, 2023.

_____, *Final 2021 Integrated Energy Policy Report Volume I Building Decarbonization*, February 2022.

City of Redlands, *Bergamot Specific Plan*, https://www.cityofredlands.org/sites/main/files/file-attachments/bergamot-specific_plan.pdf?1646188068, adopted October 5, 2021.

City of Redlands, *City of Redlands Municipal Code, current through Ordinance 2953*, passed January 17, 2023.

_____, *General Plan 2035*, adopted December 2017.

_____, *General Plan Environmental Impact Report*, July 2017.

City of San Bernardino, *City of San Bernardino 2005 General Plan Figure LU-4, San Bernardino International Airport Planning Boundaries*.

Coffman Associates, Inc., *2015 Redlands Municipal Airport Land Use Compatibility Plan Review Exhibit 6, Updated ALUCP Safety Zones*, November 10, 2015.

Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000, https://www3.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf, accessed July 10, 2023.



Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, January 2006.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-4 Vibration Source Levels for Construction Equipment, September 2018.

FirstCarbon Solutions, *Tentative Biological Resources Assessment and San Bernardino Kangaroo Rat Habitat Assessment, Song and Emm Properties Project, City of Redlands, San Bernardino County, California*, March 23, 2023.

_____, *Land Evaluation and Site Assessment Model Letter Report for the Song and Emm Properties, City of Redlands, San Bernardino County, California*, April 20, 2022.

_____, *Phase I Cultural Resources Assessment, Song and Emm Properties Project, City of Redlands, San Bernardino County, California*, December 12, 2022.

Huitt-Zollars, Inc., *Preliminary Drainage Report for Pioneer Avenue Tentative Tract No. 20528*, November 10, 2022.

_____, *Preliminary Water Quality Management Plan for Pioneer Avenue Redlands, Tentative Tract No. 20528*, November 10, 2022.

Michael Baker International, *Air Quality/Greenhouse Gas/Energy Modeling Results*, July 2023.

_____, *Traffic Study Tentative Tract Map No. 20528 Residential Development City of Redlands*, September 26, 2023.

_____, *TTM No. 20528 Vehicle Miles Traveled (VMT) Assessment Technical Memorandum*, July 21, 2023.

Petra Geosciences, Inc., *Due-Diligence/Feasibility Geotechnical Assessment, Approximately 10-Acre Property at 1160 W. Pioneer Avenue, East of 210 Freeway and North of Domestic Avenue, City of Redlands San Bernardino County, California*, September 10, 2021.

_____, *Due-Diligence/Feasibility Geotechnical Assessment, 5-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-03, Site East of 1160 W. Pioneer Avenue, City of Redlands, San Bernardino County, California*, April 6, 2022.

_____, *Phase I Environmental Site Assessment and Limited Phase II Site Assessment, 10±-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-01, 1160 W. Pioneer Avenue East of 210 Freeway and North of Domestic Avenue, City of Redlands, San Bernardino County, California*, September 10, 2021.

_____, *Phase I Environmental Site Assessment and Limited Phase II Site Assessment, 5±-Acre Parcel of Agricultural Land, Assessor Parcel Number (APN) 0167-061-03, Site East of 1160 W. Pioneer Avenue, City of Redlands, San Bernardino County, California*, May 11, 2022.

South Coast Air Quality Management District, Rule 1113 Architectural Coatings, <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>, accessed July 10, 2023.

Southern California Association of Governments, *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*, September 3, 2020.

_____, *Current Context: Demographics and Growth Forecast Technical Report*, September 3, 2020.

State of California Governor's Office of Planning and Research, *General Plan Guidelines*, July 2017.

U.S. Environmental Protection Agency, Carbon Monoxide Emissions, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed July 3, 2023.



U.S. Green Building Council, Green Building Costs and Savings, <https://www.usgbc.org/articles/green-building-costs-and-savings>, accessed July 14, 2023.

Vista Environmental, *Noise Impact Analysis Tentative Tract Map No. 20528 Residential Project, City of Redlands*, August 2, 2023.

Water Systems Consulting, Inc., *2020 Integrated Regional Urban Water Management Plan*, May 27, 2021.



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