

*California Environmental Quality Act*  
INITIAL STUDY

## Heritage Specific Plan

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Agency:*



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## SECTION A. INTRODUCTION AND PURPOSE OF THE IS/MND

### I. Format and Content of the IS/MND

The content and format of this Initial Study/Mitigated Negative Declaration (IS/MND) is designed to meet the requirements of the California Environmental Quality Act (CEQA). This report is organized as follows:

- Section A, *Introduction and Purpose of the IS/MND*, identifies the purpose and scope of the IS/MND.
- Section B, *Project Description*, describes the location, general environmental setting, project background, project components, and the characteristics of the proposed project's construction and operational phases.
- Section C, *Environmental Checklist Form*, provides a checklist of environmental factors that would be potentially affected by this project and a description of the possible threshold responses.
- Section D, *Evaluation of Environmental Impacts*, presents the environmental setting and impact analysis for each resource topic.
- Section E, *References*, identifies all printed references and individuals cited in this IS/MND.

### II. Purpose of the IS/MND

The purpose of the Initial Study is to: (1) identify environmental impacts; (2) provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or a negative declaration; (3) enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is required to be prepared; (4) facilitate environmental assessment early in the design of the project; (5) document the factual basis of the finding in a negative declaration that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously prepared EIR could be used for the project; and (8) assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

#### CEQA Objectives

CEQA seeks to accomplish the following five major objectives using the procedures indicated below:

- **Disclose Environmental Impacts:** The CEQA process is primarily designed to identify and disclose to decision makers and the public the significant environmental impacts of a proposed project prior to its consideration and approval. This is accomplished by the preparation of the following types of CEQA documents:
  - Initial Studies
  - Negative Declarations
  - Environmental Impact Reports



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- **Prevent or Reduce Environmental Damage:** If potential adverse environmental impacts are identified, the CEQA process next attempts to identify ways to prevent or reduce these impacts by requiring consideration of feasible project alternatives or the adoption of mitigation measures for project impacts that cannot be avoided along with appropriate mitigation monitoring.
  - **Disclose Agency Decisions:** The CEQA process provides for the full disclosure to the public of the reasons for agency (lead, responsible, trustee) approval of projects with significant environmental impacts using the following methods:
    - Findings
    - Statement of Overriding Consideration
  - **Promote Interagency Coordination:** Lead, responsible, and trustee agencies assist each other in more thoroughly understanding the potential environmental impacts associated with a proposed project by incorporating one or more of the following into their CEQA processes:
    - Early consultation
    - Scoping meetings
    - Notice of Preparation (NOP)
    - State Clearinghouse review
  - **Encourage Public Participation:** The CEQA process encourages and provides opportunities for public participation in the overall project planning process in one or more of the following CEQA processes:
    - Scoping meetings
    - Receipt of public notice
    - Response to comments
    - Legal enforcement procedures
    - Citizen access to the courts

### **CEQA Requirements for MNDs**

Section 15063(d) of the CEQA Guidelines (Sections 15000–15387 of the California Code of Regulations [CCR]) identifies the following specific disclosure requirements for inclusion in an Initial Study:

- A description of the project including the location of the project;
- An identification of the environmental setting;
- An 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;
- A discussion of ways to mitigate significant effects identified, if any;



- An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls; and,
- The name of the person or persons who prepared or participated in the Initial Study.

### III. Planning Context

#### Governing Body

The City of Redlands (City) is the lead agency under CEQA for the proposed project. The City has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, with mitigation measures identified in this Initial Study, will have a significant effect on the environment. This IS/MND reflects the lead agency's independent judgement and analysis.

#### General Plan

The City of Redlands General Plan 2035 (General Plan) is the current general plan in place, adopted on December 5, 2017. The 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 (most recently published in 2014 and scheduled to be updated in 2022.)

#### General Plan Land Use Designations

The current general plan land use designation of the project site is Commercial, which is described as follows, according to the General Plan Land Use Element:

- Commercial: This land use category designates areas for the development of a wide range of commercial uses, including neighborhood-serving stores and convenience centers, regional commercial centers, and commercial recreation. Sites with this designation may be developed with a stand-alone commercial use, two or more commercial uses, or mixed uses. The Commercial land use category may permit residential and mixed uses consistent with the underlying zoning district.

A General Plan Amendment is proposed as part of the project to change the land use designation from Commercial to Low Density Residential, which is described as follows, according to the General Plan Land Use Element:

- Low-Density Residential: This land use category designates areas intended to be developed at densities of up to 6 du/ac. This category is not intended to be applied in areas where slopes exceed 15 percent. The intent of this land use category is to provide for areas of single-family residential developments. Consistent lots sizes include 7,200 square feet (6.0 units per gross acre) and 10,000 square feet (4.3 units per gross acre).



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## Zoning

The current zoning designation of the project site is Specific Plan; specifically, the project site is located within the East Valley Corridor Specific Plan area. A zoning amendment is proposed as part of the project to change the zoning designation from East Valley Corridor Specific Plan to the Heritage Specific Plan, which would be a new Specific Plan, included as a component of the project.

## IV. Initial Study Findings

Section C of this document contains the Environmental Checklist/Initial Study that was prepared for the proposed project pursuant to CEQA requirements. The Environmental Checklist/Initial Study determined that implementation of the proposed project would result in no impacts or less than significant environmental effects under the issue areas of Aesthetics, Agriculture, Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire.

The Environmental Checklist/Initial Study determined that the proposed project would result in less significant effects with mitigation incorporated to the following issue areas: Biological Resources, Hazards and Hazardous Materials, Noise, and Transportation and Traffic.

The Environmental Checklist/Initial Study determined that there is no substantial evidence, in light of the whole record before the Lead Agency (City of Redlands), that the project may have a significant effect on the environment.

## V. Public Review and Processing of the IS/MND

The environmental documentation and supporting analysis are subject to a public review period. During this review, comments on the document relative to environmental issues should be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the IS/MND documentation for consideration by the City.

## SECTION B. PROJECT DESCRIPTION

### I. Project Summary

The project involves development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres, located on the west side of Texas Street, north side of W. San Bernardino Avenue and south side of Pioneer Avenue in the City of Redlands.

Additional components of the project include: General Plan Amendment (Commercial to Low Density Residential); Specific Plan Amendment (remove the site from the East Valley Corridor Specific Plan); New Specific Plan (residential development, with applicable development standards); and Tentative Tract Map (subdivision for a new residential tract). The project is described in detail in Section B.IV., *Proposed Improvements*.



## II. Project Location

The City of Redlands (City) is located in the southwestern portion of San Bernardino County. The City is bisected by the Interstate 10 (I-10) and State Route 210 (SR-210) freeways and is primarily surrounded by the developed cities of Loma Linda, San Bernardino, and Highland; refer to **Figure 1, Regional Vicinity** and **Figure 2, Site Vicinity**.

Regional access to the site is available via I-10 at the Alabama Street exit, which is approximately 1.2 miles to the southwest of the site, and via SR-210 at the San Bernardino Avenue exit, which is approximately 0.25 miles to the west of the site. Local access to the site is provided via W. San Bernardino Avenue and Texas Street.

The project includes four parcels (APNs: 0167-091-02-0000, 0167-091-04-0000, 0167-091-05-0000, and 0167-091-08-0000) totaling approximately 37.2 acres, as outlined in **Table 1, Project APN List**. The planned development encompasses property located within the East Valley Corridor Specific Plan, which will be amended to remove this area out of that specific plan and into the proposed Heritage Specific Plan.

**Table 1: Project APN List**

Assessor's Parcel Number <sup>1</sup>	Address	Gross Acres
0167-091-02-0000	W. San Bernardino Avenue	9.55
0167-091-04-0000	W. San Bernardino Avenue	9.55
0167-091-05-0000	W. San Bernardino Avenue	9.25
0167-091-08-0000	W. San Bernardino Avenue	9.55

Note: 1. San Bernardino County Assessor, Property Information Management System website at <http://www.sbcounty.gov/assessor/pims/> Accessed 7-9-19.

## III. Existing Site Conditions

### Onsite Conditions

The project site consists of a former citrus orchard, most of which has been graded. The site's natural vegetation has been largely removed by past cultivation and weed abatement disking, however, the western parcel supports some nonnative grassland. There is an existing water conveyance system onsite, previously used for citrus irrigation, that consists of a combination of rock-and-mortar flumes, brick flow control weirs and concrete distribution standpipes. The site is otherwise unimproved and there are no other existing structures onsite. Site photographs are provided in **Figure 3, Site Photographs**.

The topography of the site is relatively flat, however, each parcel is separated by a small retaining wall step with a grade difference of approximately 1 to 2 feet, sloping down westerly. The elevation of the site is approximately 1,300 feet. The area generally drains to the west, however, there are north-south channels as part of the groves that intercept and divert the runoff north.





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## Surrounding Land Uses

The project site is bounded by public institutional uses (Citrus Valley High School) to the north, vacant land to the west, residential development to the south and east, and agricultural uses to the east. According to the General Plan, there are city-owned citrus groves located within the agricultural uses immediately to the east of the site along Texas Street.

## IV. Proposed Improvements

### Residential Development

The proposed development is comprised of a new planned residential community that would include approximately 207 single-family one- and two-story detached wood-framed homes with concrete slab-on-grade floors with associated underground utilities. The overall gross density of the development would be approximately 5.7 dwelling units per acres (the maximum permitted number of dwelling units is 6 dwelling units per acre (du/ac) based on the City's residential development standards). The conceptual site plan is provided in **Figure 4, Conceptual Site Plan**.

### Architectural Features

The proposed architecture is designed for aesthetic compatibilities with the surrounding area and includes the following three styles: Craftsman, Spanish eclectic, and Ranch. Exterior materials would include stucco and/or stucco with limited wood siding as an accent with a stucco or stone base. Elevations of the proposed buildings are provided in **Figures 5a, 5b, and 5c, Proposed Building Elevations**.

### Site Access

Project site access is proposed as follows:

- W. San Bernardino Avenue: Vehicular access to the project via San Bernardino would be provided through a two-way access road located midway between future New York Street and Texas Street and connects to the internal roadway system of the project. Traffic exiting the project site at this location would be restricted to a right-turn only by a proposed raised median on W. San Bernardino Avenue at this site entry. A seven-foot-wide pedestrian sidewalk is proposed along the north side of W. San Bernardino Avenue that would meander between the public right-of-way and adjacent landscape lot to be dedicated to the City.
- Texas Street: Vehicular access to the project via Texas Street would be provided through a two-way access road located midway between Pioneer Avenue and W. San Bernardino Avenue that would connect to the internal roadway system of the project.
- Pioneer Avenue: No vehicular access to the project is proposed along Pioneer Avenue except for a restricted emergency vehicle access location at the northwest corner of the site.
- New York Street (Future): No vehicular access to the project is proposed along New York Street.





- Internal Circulation: Access to the project is provided by two ingress/egress points on San Bernardino Avenue and Texas Street. Internal roadways would provide access to the residential units and parks. The street design section would be a modified City standard for local residential streets with a fifty-two (52) foot right-of-way width, thirty-six (36) foot curb-to-curb separation and five (5) foot wide curb adjacent sidewalks.

### **Connectivity and Recreational Uses**

A comprehensive sidewalk and trail system with connections to the public realm are planned throughout the project. This system includes landscaped nodes that connect the corners of the site to the public street network, in order to allow for a walkable community and the ability for potential students to walk to Citrus Valley High School. The site's street network would lead to an open space area at the center of the community. This space, to be maintained by a Home Owner's Association, would include a mix of passive uses including, but not limited to, picnicking areas, shade structure(s), playgrounds, gardens, seating areas, informal play areas, and landscaping.

## **V. Project Construction and Phasing**

The project is estimated to be constructed in one phase over approximately 42 months, beginning approximately in fall of 2020 and ending approximately spring of 2024.



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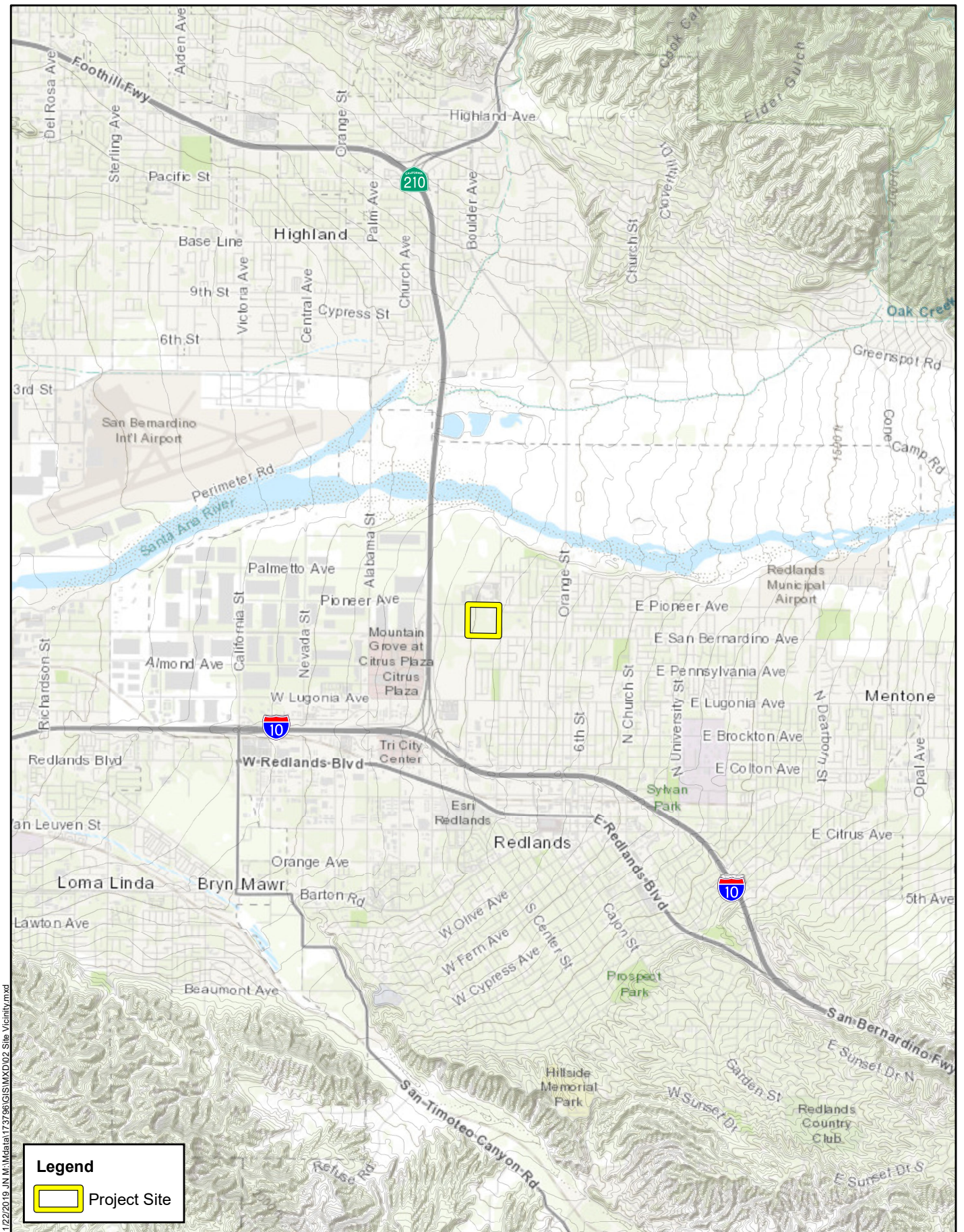




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HERITAGE SPECIFIC PLAN  
IS/MND  
**Site Vicinity**

Figure 2



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Northern area of project site, facing south



Southern area of project site, facing north



Western boundary of project site, facing east



Eastern area of project site, facing west





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PLAN 1 - FRONT



PLAN 1 - REAR STANDARD



PLAN 1 - REAR ENHANCED



PLAN 3 - FRONT



PLAN 3 - REAR STANDARD



PLAN 3 - REAR ENHANCED



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PLAN 2 - FRONT



PLAN 2 - REAR STANDARD



PLAN 2 - REAR ENHANCED



PLAN 4 - FRONT



PLAN 4 - REAR STANDARD



PLAN 4 - REAR ENHANCED

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PLAN 1 - FRONT



PLAN 1 - REAR STANDARD



PLAN 1 - REAR ENHANCED



PLAN 5 - FRONT



PLAN 5 - REAR STANDARD



PLAN 5 - REAR ENHANCED

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## SECTION C. ENVIRONMENTAL CHECKLIST FORM

1. Project Title: Heritage Specific Plan Project
2. Lead Agency Name and Address: City of Redlands  
Development Services Department  
35 Cajon Street, Suite 20  
P.O. Box 3005  
Redlands, CA 92373
3. Contact Person and Phone Number: Loralee Farris  
Principal Planner  
Development Services Department  
(909) 798-7555 x 2
4. Project Location: The project site is located on the west side of Texas Street, north side of W. San Bernardino Avenue and south side of Pioneer Avenue, east of SR-210 and north of I-10.
5. Project Sponsor's Name and Address: Griffin Residential  
110 N. Lincoln Avenue, Suite 100  
Corona, CA 92882
6. General Plan Designation: Commercial
7. Zoning: Specific Plan
8. Description of Project:

Development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres; General Plan Amendment (Commercial to Low Density Residential); Specific Plan Amendment (remove the site from the East Valley Corridor Specific Plan); New Specific Plan (residential development, with applicable development standards); and Tentative Tract Map (subdivision for a new residential tract).
9. Surrounding Land Uses and Setting:

The project site is bounded by public institutional uses (Citrus Valley High School) to the north, vacant land to the west, residential development to the south and east, and agricultural uses to the east. According to the General Plan, there are city-owned citrus groves located within the agricultural uses immediately to the east of the site along Texas Street.
10. Other Public Agencies Whose Approval is Required:



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N/A

11. Have California Native American tribes traditionally and culturally affiliated with the project are 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.?<sup>1</sup>

In accordance with the requirements of Public Resources Code section 21080.3.1, the City of Redlands notified thirteen (13) tribes with traditional lands or cultural places located within the boundaries of San Bernardino County, from a list provided by the Native American Heritage Commission, for the purposes of Senate Bill 18 on July 16, 2019 and five (5) tribes for the purposes of Assembly Bill 52, on July 16, 2019, including the Gabrieleño Band of Mission Indians – Kizh Nation, Morongo Band of Mission Indians, Soboba Band of Luiseño Indians, San Manuel Band of Mission Indians, and the Torres Martinez Desert Cahuilla Indians. The lead agency consulted with tribes that requested consultation on the project and integrated appropriate mitigation measures for the project.

## I. Evaluation Format

## II. 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" as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                              |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input type="checkbox"/> Energy                                   |
| <input type="checkbox"/> Geology/Soils                   | <input type="checkbox"/> Greenhouse Gas Emissions           | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality         | <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources                        |
| <input checked="" type="checkbox"/> Noise                | <input type="checkbox"/> Population/Housing                 | <input type="checkbox"/> Public Services                          |
| <input type="checkbox"/> Recreation                      | <input checked="" type="checkbox"/> Transportation/Traffic  | <input checked="" type="checkbox"/> Tribal Cultural Resources     |
| <input type="checkbox"/> Utilities/Service Systems       | <input type="checkbox"/> Wildfire                           | <input type="checkbox"/> Mandatory Findings of Significance       |

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<sup>1</sup> NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.



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 project. To each question, there are four possible responses:

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



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### III. Environmental Determination

(To be completed by the Lead Agency)

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.

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Signature

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Date



## SECTION D. EVALUATION OF ENVIRONMENTAL IMPACTS

### I. Aesthetics

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AESTHETICS:</b> <i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

#### Discussion

**a) Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista? Less Than Significant Impact.**

The project site is located in an area with mixed residential, active agricultural and public institutional uses, and consists of existing single-family residences to the south and east, vacant land to the south, city-owned citrus groves to the east, and Citrus Valley High School to the north. The proposed single-family residences would be consistent with these uses.



Scenic vistas in the City are defined as scenic corridors and views to and from open spaces, hillsides, groves, Canyonlands, and the San Bernardino Mountains.<sup>2</sup> Views of the San Bernardino Mountains to the north are available from the project site and surrounding area. The San Bernardino Mountains and foothills are visually prominent topographic features that provide a scenic vista from mobile and stationary viewing locations throughout the City. The San Bernardino Mountains and foothills are located approximately 5 miles to the northeast of the project site.

Based on these distances, as well as the presence of existing intervening natural features and manmade structures, the project site is not located within the general viewshed of this scenic vista, nor is the project likely to block views of or from these scenic resources. The inclusion of the project within the existing viewshed would be consistent with views presently found in the project area. In addition, the proposed project would be subject to the City's Design Guidelines and Zoning Code (Title 18), which regulate the height and bulk of the buildings. Therefore, impacts associated with scenic vistas would be less than significant.

**b) *Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? No Impact.***

There are no officially designated scenic highways in the project vicinity. According to the California Department of Transportation (Caltrans), the closest Eligible State Scenic Highway to the project site is State Route 38 (SR-38), which is approximately 0.75 miles to the southeast of the project site. However, this highway is not officially designated according to the California Scenic Highway Mapping System. Therefore, the project site is not located within the viewshed of this Eligible State Scenic Highway.

**c) *Except as provided in Public Resources Code Section 21099, would the project, 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.***

### **Construction Impacts**

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. The project would not conflict with applicable zoning or other regulations governing scenic quality since the project would be required to comply with provisions in the City's Municipal

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<sup>2</sup> City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report (July 21, 2017). [https://www.cityofredlands.org/sites/main/files/file-attachments/redlands\\_deir\\_compiled\\_lo\\_071917\\_0.pdf](https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_deir_compiled_lo_071917_0.pdf) Accessed 7-15-19.



Code Chapter 15.56 (Fencing and Screening for Building and Construction Sites). As such, short-term construction impacts relative to visual character would be reduced to a less than significant level.

### **Operational Impacts**

A project is generally considered to have a significant visual/aesthetic impact if it substantially changes the character of a project site such that it becomes visually incompatible or visually unexpected when viewed in the context of its surroundings. Such changes would degrade the existing visual character or quality of the site and its surroundings.

The project site is currently vacant and does not contain scenic resources. The project's current zoning designation is Commercial and the project proposes a zoning change to Heritage Specific Plan upon project approval. In addition, surrounding land uses include existing residential and public institutional (school). As such, the project is considered to be located in an urbanized area. Development associated with the project would be required to adhere to design guidelines that would be provided in the Heritage Specific Plan, which would ensure visual compatibility with the project area in accordance with the City's General Plan Action 6-A.26 described below. Therefore, the project would be consistent with the intended uses for the site and a less than significant impact would occur.

### **General Plan Principles and Actions**

Vital Environment Element (Agriculture and Open Space for Resource Production Actions)

Action 6-A.26:           Ensure that new development adjacent to an agricultural use is compatible with the continuation of the use by requiring appropriate design criteria, such as site layout, landscaping, and buffer areas.

**d)   *Except as provided in Public Resources Code Section 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? Less Than Significant Impact.***

In its undeveloped condition, the proposed project site does not generate light or glare. However, within the immediate vicinity of the project site, nighttime illumination is currently generated by the surrounding residential developments and the associated vehicle traffic. Building materials used in the immediate vicinity of the project site are nonreflective and are not sources of daytime glare.

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 described below, would reduce this impact to a less than significant level.

In addition, street lights 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 street lights to ensure public safety and minimize public nuisance. Therefore, adverse effects associated with light trespass and/or glare would be less than significant.





### General Plan Principles and Actions

Distinctive City Element (Historic and Scenic Conservation Actions)

Action 2-A.35: Establish standards for the evaluation of exterior lighting for new development and redevelopment to ensure that exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) is minimized, restricted to low-intensity fixtures, shielded, and concealed to the maximum feasible extent, and that high-intensity perimeter lighting and lighting for sports and other private recreational facilities is limited to reduce light pollution visible from public viewing areas.

## II. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AGRICULTURE AND FORESTRY RESOURCES:</b> <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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and 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>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>





	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

## Discussion

### **a) *Would the project 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.***

According to the California Department of Conservation's Farmland Mapping and Monitoring Program<sup>3</sup>, the project site is designated as Prime Farmland and Farmland of Statewide Importance. The designated farmland on-site is considered to be an important state and local agricultural resource. Development of the site to a residential use would therefore result in the conversion of Prime Farmland, and Farmland of Statewide Importance to a nonagricultural use.

However, 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 is 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 incorporated potential impacts to agriculture resources into their respective analysis. Therefore, impacts to protected farmlands are considered less than significant.

<sup>3</sup> California Department of Conservation Farmland Mapping and Monitoring Program website. <https://maps.conservation.ca.gov/DLRP/CIFF/>



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**b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? No Impact.**

The project proposes to amend the General Plan designation on the project site from Commercial to Low Density Residential. Agriculture is not a permitted use in the Commercial designation.

As discussed in **Impact II.a)** above, the proposed project is located within the East Valley Corridor Specific Plan area. The current zoning designation of the project site is East Valley/Special Development District (EV/SD). The purpose of the EV/SD is to allow administrative professional, commercial, industrial, or mixed-use development. Agriculture is permitted as an Open Space use.

The project site is currently undeveloped and disturbed from previous agricultural use as recently as 2018. The project site does not currently support agricultural operations. None of the lands affected by the proposed project are currently subject to a Williamson Act contract. Therefore, no conflict would occur in this regard and no impact would occur.

**c) Would the project 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.**

There are no lands zoned for forest or timber production on any lands affected by the proposed project. Therefore, the project would not conflict with existing zoning for or cause the rezoning of forest land. No impact would occur.

**d) Would the project result in the loss of forest land or conversion of forest land to non-forest use? No Impact.**

No forest lands are located on the project site; therefore, no such lands would be affected by the proposed improvements. The project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

**e) Would the project 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.**

Although the project site is designated as Prime Farmland and Farmland of Statewide Importance, the project site is currently undeveloped and does not support agricultural operations. Typically, conversion of farmland to non-agricultural use would result in a significant impact. However, as described in Impact a), above, the project would not result in a significant loss of farmland because development of the project site has already been evaluated in the General Plan 2035 and East Valley Corridor Specific Plan. Additionally, no designated forest lands are present on the project site and no impact due to the conversion of forest land to non-forest use would occur.



As stated in **Impact II.a)** above, the project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project is not anticipated to affect existing agriculture use to the east because the proposed project would not require additional restrictions and limitations on pesticides, fungicides, and herbicides used on crops grown on surrounding farmlands. In addition, restrictions would not be placed on noise, burning, and dust generation associated with these nearby uses.

Vehicle emissions from adjacent transportation routes and increased roadways can impact the health and survival of the crops. It is anticipated that construction traffic would increase vehicle emissions; however, this would be a temporary situation and would cease once construction is completed. Occupancy of the proposed project would also result in an increase in vehicle trips and emissions in the area; however, the project site is located in an urbanized area within the general vicinity of two major highways (I-10 and SR-210) that already contribute to emissions in the area. Therefore, the increase in vehicle emissions from the proposed project would not significantly alter the existing air quality setting.

For the reasons stated above, the proposed project is not expected to result in the conversion of farmland on adjacent or nearby properties to non-farmland uses. Impacts would be less than significant.

### III. Air Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AIR QUALITY:</b> <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>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the



west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

The analysis and findings throughout this section are based on the *Heritage Residential Specific Plan Project – Air Quality/Greenhouse Gas Emissions Technical Memorandum* prepared by Michael Baker International on September 25, 2019. This technical memorandum, referred to herein as *AQ/GHG Technical Memorandum*, is provided as Appendix A of this IS/MND.

## Discussion

### **a) *Would the project conflict with or obstruct implementation of the applicable air quality plan? Less Than Significant Impact.***

The City is located within the South Coast Air Basin (Basin), which is bounded by the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east and by the Pacific Ocean to the south and west. The South Coast Air Quality Management District (SCAQMD) has jurisdiction in the Basin, which has a history of recorded air quality violations and is an area where both State and Federal ambient air quality standards are exceeded. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The air quality in the San Bernardino County portion of the Basin does not meet the ambient air quality standards for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and is therefore classified as a nonattainment area for these pollutants. SCAQMD is required, pursuant to the federal Clean Air Act (FCAA), to reduce emissions of the air pollutants for which the Basin is in nonattainment.

In order to reduce emissions, SCAQMD adopted the 2016 *Air Quality Management Plan* (2016 AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state and federal air quality standards. The 2016 AQMP is a regional and multi-agency effort including SCAQMD, California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the U.S. Environmental Protection Agency (EPA).

The 2016 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2016-2040 *Regional Transportation Plan/Sustainable Communities Strategy* (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. SCAQMD considers projects that are consistent with the 2016 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 2016 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 **Impact III.c)** below, localized concentrations of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would be less than significant. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Because reactive organic gas (ROG) is not a criteria pollutant, there is no ambient standard or localized threshold for ROG. 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.

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

As discussed in **Impact III.b)** below, the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the proposed 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 localized concentrations during project construction and operations. As such, the proposed project would not delay the timely attainment of air quality standards or 2016 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, SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 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?

A project is consistent with the 2016 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the 2016 AQMP. In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the General Plan, SCAG's Growth Management Chapter of the *Regional*





*Comprehensive Plan and Guide* (RCPG), and SCAG's RTP/SCS. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City; these are used by SCAG in all phases of implementation and review.

The proposed project would develop 207 single-family residences with associated utilities, infrastructure, open space, and recreational areas on approximately 37.2 acres. As a result, the project proposes to amend the General Plan designation on the project site from Commercial to Low Density Residential. The Low-Density Residential land use designation allows for the development of single-family residences, with a maximum density of 6 dwelling units per acre (du/ac). The proposed development plans an overall gross density of approximately 5.7 du/ac and would be consistent with the General Plan land use designation. The current zoning designation of the project site is Specific Plan with an agricultural use; the project site is located within the East Valley Corridor Specific Plan area. A zoning amendment is proposed as part of the project to change the zoning designation from East Valley Corridor Specific Plan to Heritage Specific Plan. With approval of the zoning amendment, the project would be consistent with the City's zoning code. Therefore, with approval of the project's proposed General Plan amendment and zone change, the project would not conflict with the existing zoning or land use designation. As such, the proposed project is considered consistent with the General Plan, and is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity.

The City's population estimate, as of July 2018, is 71,586 persons. The project would induce population growth directly through the construction of 207 residences. Assuming 100 percent occupancy and 2.84 persons per household, the maximum population growth associated with project implementation would be approximately 588 persons. This growth would not cause SCAG's 2035 population forecast of 83,400 to be exceeded. As the project would not cause SCAG's 2035 population forecast to be exceeded, the project would not cause the City's General Plan buildout population forecast to be exceeded. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City. Additionally, as SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections.

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

The proposed project would not require mitigation and would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by SCAQMD would be required as identified under **Impact III.b)** and **III.c)** below. As such, the proposed project meets this AQMP consistency criterion.

In conclusion, the determination of 2016 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. Also, the proposed project would be consistent with the goals and policies of the 2016 AQMP for control of





fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with SCAQMD and SCAG's goals and policies and is, therefore, considered consistent with the 2016 AQMP. Impacts would be less than significant in this regard.

- b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? Less Than Significant Impact.**

### **Short-Term Construction**

The project involves construction activities associated with grading, paving, building construction, and architectural coating applications. It is anticipated that the project would be constructed over approximately 42 months. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2016.3.2 (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 offsite. The analysis of daily construction emissions has been prepared utilizing CalEEMod; refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data*, for the CalEEMod outputs and results. **Table 2, Short-Term Construction Air Emissions**, presents the anticipated daily short-term construction emissions.

**Table 2: Short-Term Construction Air Emissions**

Emissions Source	Pollutant (pounds/day) <sup>1,2</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Year 1	4.72	56.49	33.74	0.08	6.19	3.56
Year 2	7.18	52.21	37.08	0.08	6.00	3.38
Year 3	6.78	30.45	36.46	0.07	2.49	1.66
Year 4	6.52	27.70	36.01	0.07	2.31	1.49
Year 5	6.34	25.99	35.75	0.07	2.17	1.36
<b>Maximum Daily Emissions</b>	<b>7.18</b>	<b>56.49</b>	<b>37.08</b>	<b>0.08</b>	<b>6.19</b>	<b>3.56</b>
SCAQMD Thresholds	75	100	550	150	150	55
<b>Is Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: ROG = reactive organic gas; NO<sub>x</sub> = nitrous oxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2016.3.2.
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 A](#) for detailed model input/output data.



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### 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 demolition, grading, and construction is expected to be short-term and would cease upon project completion. It should be noted that 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 PM<sub>10</sub> (particulate matter smaller than 10 microns) generated as a part of fugitive dust emissions. PM<sub>10</sub> poses a serious health hazard alone or in combination with other pollutants. PM<sub>2.5</sub> 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<sub>2.5</sub> 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<sub>x</sub> and sulfur oxides (SO<sub>x</sub>) combining with ammonia. PM<sub>2.5</sub> components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

Construction activities would comply with SCAQMD Rule 403, which requires that excessive fugitive dust emissions be controlled by regular watering or other dust prevention measures. Adherence to SCAQMD 403 would greatly reduce PM<sub>10</sub> and PM<sub>2.5</sub> concentrations. It should be noted that these reductions were applied in CalEEMod. As depicted in **Table 2**, total PM<sub>10</sub> and PM<sub>2.5</sub> emissions would not exceed the SCAQMD thresholds during construction. Thus, construction air quality impacts 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, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in **Table 2**, construction equipment and worker vehicle exhaust emissions would be below the established SCAQMD thresholds. Therefore, air quality impacts from equipment and vehicle exhaust emission 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 O<sub>3</sub> precursors. As required, all architectural coatings for the proposed project structures would comply with SCAQMD Regulation XI, Rule 1113 – Architectural Coating. Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. ROG emissions associated with the proposed project would be less than significant; refer to **Table 2**.



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### 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 California Department of Conservation, serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

### Total Daily Construction Emissions

In accordance with SCAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Adherence to SCAQMD Rule 403 (which requires watering of inactive and perimeter areas, track out requirements, etc.) was taken into account in CalEEMod. As indicated in **Table 2**, impacts would be less than significant for all criteria pollutants during construction. Thus, total construction related air emissions would be less than significant.

### **Long-Term (Operational) Emissions**

#### Mobile Source Emissions

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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are all pollutants of regional concern (NO<sub>x</sub> and ROG react with sunlight to form O<sub>3</sub> [photochemical smog], and wind currents readily transport SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>); however, CO tends to be a localized pollutant, dispersing rapidly at the source.

Based on the *Pioneer & Texas Residential Traffic Impact Analysis* (Traffic Impact Analysis), prepared by Urban Crossroads and dated April 16, 2019, the proposed project would generate approximately 1,956 average daily vehicle trips. **Table 3, Long-Term Operational Air Emissions**, presents the anticipated mobile source emissions. As shown in **Table 3**, emissions generated by vehicle traffic associated with the project would not exceed established SCAQMD thresholds. Impacts from mobile source air emissions would be less than significant.



### Area Source Emissions

Area source emissions would be generated from consumer products, architectural coating, and landscaping. As shown in **Table 3**, area source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

### Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) 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. As shown in **Table 3**, energy source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

### Total Daily Operational Emissions

As indicated in **Table 3**, operational emissions from the proposed project would not exceed SCAQMD thresholds. Thus, operational air quality impacts would be less than significant.

**Table 3: Long-Term Operational Air Emissions**

Emissions Source	Pollutant (pounds/day) <sup>1</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summer Emissions</b>						
Area Source Emissions	8.89	3.29	18.39	0.02	0.34	0.34
Energy Emissions	0.11	0.92	0.39	0.01	0.07	0.07
Mobile Emissions	3.23	18.51	33.98	0.15	11.04	3.01
<b>Total Daily Emissions<sup>2</sup></b>	<b>12.23</b>	<b>22.72</b>	<b>52.76</b>	<b>0.17</b>	<b>11.46</b>	<b>3.43</b>
SCAQMD Threshold	55	55	550	150	150	55
<b>Is Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Winter Emissions</b>						
Area Source Emissions	8.89	3.29	18.39	0.02	0.34	0.34
Energy Emissions	0.11	0.92	0.39	0.01	0.07	0.07
Mobile Emissions	2.78	18.42	30.10	0.13	11.04	3.01
<b>Total Daily Emissions<sup>2</sup></b>	<b>11.78</b>	<b>22.63</b>	<b>48.88</b>	<b>0.16</b>	<b>11.46</b>	<b>3.43</b>
SCAQMD Threshold	55	55	550	150	150	55
<b>Is Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: ROG = reactive organic gas; NO<sub>x</sub> = nitrous oxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2016.3.2.

2. The numbers may be slightly off due to rounding.

Source: Refer to [Appendix A](#) for detailed model input/output data.





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### **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, O<sub>3</sub> precursors, VOCs, and NO<sub>x</sub> affect air quality on a regional scale. Health effects related to O<sub>3</sub> 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 SCAQMD (April 6, 2015) for the *Sierra Club vs. County of Fresno*, 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 has 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.

SCAQMD acknowledges that health effects quantification from O<sub>3</sub>, as an example is correlated with the increases in ambient level of O<sub>3</sub> in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient O<sub>3</sub> levels over the entire region. SCAQMD states that based on their own modeling in SCAQMD's 2012 *Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO<sub>x</sub> and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O<sub>3</sub> levels at highest monitored site by only nine parts per billion. As such, SCAQMD concludes that it is not currently possible to accurately quantify O<sub>3</sub>-related health impacts caused by NO<sub>x</sub> 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.

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



The closest sensitive receptors are residences, located approximately 67 feet east of the project site, and the Citrus Valley High School, located approximately 70 feet north of the project site. In order to identify impacts to sensitive receptors, SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (area sources only).

### **Localized Significance Thresholds**

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). 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. SCAQMD provides the LST screening lookup tables for one, two, and five-acre projects emitting CO, NO<sub>x</sub>, PM<sub>2.5</sub>, or PM<sub>10</sub>. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. SCAQMD recommends that any project that disturbs five acres or more per day should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within SRA 35, East San Bernardino Valley.

#### **Construction**

Based on the CalEEMod run for the project, the project is anticipated to disturb up to 330 acres during the grading phase. The grading phase would take approximately 132 days to complete. As such, the project would actively disturb approximately 2.5 acres per day (330 acres divided by 132 days). Therefore, the LST thresholds for two acres was conservatively utilized for the construction LST analysis.

The closest sensitive receptors are residences, located approximately 67 feet east of the project site, and the Citrus Valley High School, located approximately 70 feet north of the project site. 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 uses are located approximately 67 feet east of the project site (residences) and 70 feet north of the project site (Citrus Valley High School), the LST values for 25 meters (82 feet) were used.

**Table 4, Localized Significance of Construction Emissions**, shows the localized construction-related emissions for NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> compared to the LSTs for SRA 35. It is noted that the localized emissions presented in **Table 4** are less than those in **Table 2** because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As shown in **Table 4**, the project's localized construction emissions would not exceed the LSTs for SRA 35 with adherence to SCAQMD rules and requirements. Therefore, localized significance impacts from construction would be less than significant.

#### **Operations**

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer



facilities). The proposed project does not include such uses. Thus, due to the lack of such emissions, no long-term localized significance threshold analysis is needed. Operational LST impacts would be less than significant in this regard.

**Table 4: Localized Significance of Construction Emissions**

Source <sup>1</sup>	Pollutant (pounds/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Year 1 <sup>2</sup>	50.20	31.96	5.40	3.33
Year 2 <sup>2</sup>	46.40	30.88	5.21	3.16
Year 3 <sup>3</sup>	15.62	16.36	0.81	0.76
Year 4 <sup>3</sup>	14.38	16.24	0.70	0.66
Year 5 <sup>3</sup>	13.44	16.17	0.61	0.58
<b>Maximum Daily Emissions</b>	<b>50.20</b>	<b>31.96</b>	<b>5.40</b>	<b>3.33</b>
<i>SCAQMD Localized Significance Threshold<sup>4</sup></i>	<i>170</i>	<i>1,174</i>	<i>7</i>	<i>5</i>
<b>Thresholds Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: NO<sub>x</sub> = nitrous oxide; CO = carbon monoxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

1. 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 stock piles with tarps; watering all haul roads twice daily; and limiting speeds on unpaved roads to 15 miles per hour.
2. Year 1 and Year 2 grading phase emissions present the worst-case scenario for NO<sub>x</sub> and CO, PM<sub>10</sub>, and PM<sub>2.5</sub>.
3. Year 3, Year 4, and Year 5 building construction phase emissions present the worst-case scenario for NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>.
4. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (the thresholds for two acres was used), the distance to sensitive receptors (25 meters), and the source receptor area (SRA 35).

Source: Refer to [Appendix A](#) for detailed model input/output data.

### **Localized Air Quality Health Impacts**

As evaluated above, the project's air emissions would not exceed the SCAQMD's LST thresholds. Therefore, the project would not exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (e.g., children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect children, elderly, and those with existing respiratory problems. Thus, air quality health impacts would be less than significant in this regard.

### **Carbon Monoxide Hotspot**

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 (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).



The Basin is designated as an attainment/maintenance area for the federal CO standards and an attainment area for 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. Nationwide 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. Three major control programs have contributed to the reduced per-vehicle CO emissions: 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. As previously discussed, the site is located in SRA 35 East San Bernardino Valley. Communities within SRAs are expected to have similar climatology and ambient air pollutant concentrations. The monitoring station representative of SRA 35, which monitors CO, is the San Bernardino-4th Street Monitoring Station located approximately 5.24 miles northwest of the site. The highest CO concentration at the San Bernardino-4th Street Monitoring Station was measured at 2.735 ppm in 2018. As such, the background CO concentration does not exceed 9.0 ppm and a CO hotspot would not occur. Therefore, CO hotspot impacts would be less than significant in this regard.

**d) *Would the project 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 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 minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would reduce the detectable odors from heavy-duty equipment exhaust. The project would also be required to comply with 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 not substantial. 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.





#### IV. Biological Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>BIOLOGICAL RESOURCES:</b>				
<i>Would the project:</i>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.



Two letter reports were prepared for the project by LSA Associates: *Biological Resources Constraints Analysis Summary* (May 2018) and *San Bernardino Kangaroo Rat Survey Results* (June 2018), provided in Appendix B1 and B2 in this IS/MND, respectively. These letter reports were reviewed for legal adequacy for the purposes of CEQA by Michael Baker International on July 10, 2019, and were found to be technically and legally sound; refer to Appendix B3 in this IS/MND. The analysis and findings within this section are based on these reports.

## Discussion

- a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? Less Than Significant Impact With Mitigation Incorporated.**

The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The citrus trees have since been either removed or chipped down. The project site is currently fallow and disturbed. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east.

According to the *Biological Resources Constraints Analysis Summary* prepared for the project, species observed on-site included wild oat (*Avena fatua*), Italian rye grass (*Festuca perennis*), hare barley (*Hordeum murinum ssp. leporinum*), sweet fennel (*Foeniculum vulgare*), short-pod mustard (*Hirschfeldia incana*), ripgut brome (*Bromus diandrus*), and Russian thistle (*Salsola tragus*). The following wildlife species were observed within the project area during the survey: American crow (*Corvus brachyrhynchos*) and California ground squirrel (*Otospermophilus beecheyi*). No special-status plant or animal species were observed during the survey.

### **Special-Status Plant Species**

Due to the previous agricultural use and grading of the site, no special-status plant species were observed during the site 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**

Although no special-status species were observed on-site, the U.S. Fish and Wildlife Services (USFWS) has designated critical habitat for San Bernardino kangaroo rat (SBKR) (*Dipodomys merriami parvus*) approximately 0.5-mile north of the project site. Due to the close proximity of the project site to the designated habitat, there is a potential for an undeveloped corridor to the west of the project area to exist where SBKR could enter the project site. Therefore, it was recommended that an additional focus trapping survey for SBKR be conducted for the proposed project.



As described in the *San Bernardino Kangaroo Rat Survey Results* prepared for the project, two biologists conducted five nights of protocol trapping from May 27 to June 1, 2018 for SBKR. During the protocol trapping, 449 total rodents were captured, however, none of the rodents were SBKR. Due to the lack of SBKR during protocol trappings, as well as absence of suitable habitat on-site, it was concluded that SBKR is not likely to occur on-site. Michael Baker International reviewed the findings of the *Biological Resources Constraints Analysis Summary* and *San Bernardino Kangaroo Rat Survey Results* and found that the research, methods, and analysis applied are consistent with current industry standards. Therefore, impacts to SBKR are considered less than significant.

### **Nesting Birds**

According to Sections 3503 and 3503.5 of the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA), it is unlawful to take, possess, or needlessly destroy any bird of prey or the nests or eggs of any bird species. Disturbance of any active bird nest during the breeding season, including active owl burrows, is prohibited by law.

Although the project area does not contain large trees and shrubs for nesting or roosting, the project site does contain foraging habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Implementation of Mitigation Measure **BIO-1** would minimize potential impacts to nesting birds and raptors by defining the roles of the qualified personnel on-site during construction activities and outlines procedures to undertake if nesting bird(s) or active nests are observed in the project area. Impacts would be less than significant with the incorporation of mitigation.

### **Mitigation Measures**

**BIO-1** Any grubbing, brush clearing, or tree removal shall be conducted outside of the state-identified nesting season for migratory birds, which is typically March 15 through September 1. If work cannot be conducted outside of nesting season, a migratory nesting bird survey within and adjacent to the project site shall be conducted by a qualified biologist within 3 days prior to initiating the construction activities. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, nesting sage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity.

### **Burrowing Owl**

This species is primarily found in open areas with short vegetation and bare ground in deserts, grasslands, and shrub-steppe environments. Breeding commonly occurs in native prairies, pastures, fallow fields, road and railway rights-of-way, canal embankments, and urban habitats. Burrowing owls are dependent on the presence of pre-existing mammal burrows that are used for nesting and roosting.

According to the *Biological Resources Constraints Analysis Summary*, burrowing owls have the potential to occupy the project site, specifically the open, flat areas of the project area. The project site also contains



ground squirrel burrows and debris piles that are considered potentially suitable habitat for burrowing owl.

The project has the potential to impact burrowing owl individuals if they are present on the project site at the time of scheduled disturbance activities. This potential direct impact would be mitigated to less than significant with implementation of Mitigation Measure **BIO-2**, which would reduce direct impacts to burrowing owl by requiring a preconstruction clearance survey to determine species presence and identifying proper measures for avoidance of and/or species relocation, as needed. Mitigation Measure **BIO-2** would further reduce potential impacts by requiring provision of a buffer around occupied burrows via flagging or fencing to minimize potential disturbance and monitoring of construction activities, as specified.

### Mitigation Measures

**BIO-2** To avoid construction-level impacts to burrowing owl, not more than 45 days prior to project disturbance activities, qualified personnel shall perform a preconstruction clearance survey for burrowing owl in accordance with California Department of Fish and Wildlife (CDFW) guidelines. If the species is present on-site and/or within 500 feet of the site, the biologist shall prepare and submit a passive relocation plan to the CDFW for review/approval and shall implement the approved plan to allow commencement of disturbance activities on-site.

Fencing or flagging shall be installed at a 250-foot radius from occupied burrows to create a non-disturbance buffer area where no work activities may be conducted. Through consultation with the CDFW, the non-disturbance buffers/fence lines may be reduced to 160 feet if all project-related activities that might disturb burrowing owls would be conducted during the nonbreeding season (i.e., September 1 through January 31).

If avoidance of an occupied burrow is infeasible, the owls may be passively relocated by a qualified biologist during the non-breeding season, in accordance with the passive relocation plan. (Note: Occupied burrows may not be disturbed during the breeding season [February 1 to August 31].) At a minimum, the plan shall include the following performance standards:

- Excavation shall require hand tools. Sections of flexible plastic pipe or burlap bag shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow and monitored for at least 48 hours after installation. If burrows will not be directly impacted by the project, one-way doors shall be installed to prevent use and shall be removed after ground-disturbing activities have concluded in the area. Only burrows that will be directly impacted by the project shall be excavated and filled.





- Detailed methods and guidance shall be adhered to for passive relocation of burrowing owls to off-site “replacement burrow site(s)” consisting of a minimum of two suitable, unoccupied burrows for every burrowing owl or pair to be passively relocated.
- Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.
- If preconstruction surveys indicate construction activities would occur within 500 feet of off-site occupied burrows during the breeding season (February 1 through August 31), qualified personnel shall monitor project disturbance activities and the off-site active burrows to ensure they are not being adversely affected. If so, the biologist in consultation with the CDFW shall implement additional measures to avoid such disturbances of active nesting efforts.

***b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? Less Than Significant Impact.***

As discussed in **Impact IV.a)** above, the project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed land that does not support riparian habitat or other sensitive natural vegetation communities, such as oak woodland or riparian forest. Due to the largely developed condition of the surrounding lands, indirect impacts are anticipated to be minimal and are considered less than significant. Therefore, impacts to riparian habitat or other sensitive natural communities are considered less than significant.

***c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? No Impact.***

Due to the previous agricultural uses, no potential wetland or non-wetland water features are present on-site and no jurisdictional waters are present within the project boundary. The proposed project includes minor on-site storm drains that will ultimately discharge into the adjacent streets, Pioneer Avenue and San Bernardino Avenue<sup>4</sup>. Therefore, there would be no impacts to state or federally protected wetlands.

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<sup>4</sup> Hydrology & Hydraulics Preliminary Report City of Redlands, County of San Bernardino for Griffin Residential III, LLC Tract 20257. Hicks & Hardwick Inc. 2018.



- d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? Less Than Significant Impact.**

As stated in **Impact IV.a)** above, the project site does not support special-status plant and/or animal species. The project site is bordered by residential development, public facilities, agriculture, and vacant land. Additionally, the project site is in close proximity to I-10 to the south and SR-210 to the west. Given the urbanized setting of the project site and presence of major highways, the project site is not located in a wildlife movement corridor. Therefore, impacts to wildlife corridors are considered less than significant.

- e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? No Impact.**

The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The citrus trees have since been either removed or chipped down. The remaining trees present on-site would be removed with implementation of the proposed project. The City of Redlands has policies and guidelines related to street trees on public City property<sup>5</sup> but does not have City policies or ordinances related to trees on private property. The project would not conflict with any other policies or ordinances protecting biological resources. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impacts would occur as a result of project implementation.

- f) Would the project 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 as a result of project implementation.

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<sup>5</sup> Chapter 12.52 of the Redlands Municipal Code.



## V. Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>CULTURAL RESOURCES:</b> <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

A *Cultural Resources Assessment* was completed for the project in October 2018 by LSA Associates, Inc. (LSA); this document is incorporated herein by reference and provided in Appendix C1 in this IS/MND. Michael Baker International conducted a CEQA adequacy review of the study on July 19, 2019, and concurred with the methodology and findings of the study; refer to Appendix C2 in this IS/MND. The following discussion summarizes the study and presents conclusions regarding the level of significance the project would have with respect to cultural resources.

### **Records Search**

On October 3, 2018, a cultural resources records search was conducted for the project area at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. It included a review of all recorded historic and prehistoric archaeological sites within one mile of the project, as well as a review of known cultural resource survey and excavation reports. In addition, the California State Historic Property Data File (HPD) was searched, which includes the National Register of Historic Places (NRHP), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). A review of historic period aerial photographs and maps was also conducted.

### **Pedestrian Survey**

An archeological field survey was conducted as part of the cultural resources assessment on September 29, 2018. All exposed areas were studied for surface artifacts and features and rodent



burrows for evidence of archaeological sites. The purpose of this survey is to identify and document any cultural resources or any area(s) that might be sensitive for buried cultural resources prior to the beginning of ground-disturbing activities.

### **Cultural Setting and History**

After AD 500, there was an influx of Native American groups from the eastern deserts into southern California. The project is located near the intersection of the traditional cultural territories of the Cahuilla and the Serrano. Tribal territories were somewhat fluid and changed over time. These groups were semi-nomadic hunter-gathers who subsisted on seasonably available plant and animal resources.

#### *Cahuilla*

The territory of the Cahuilla ranged from the San Bernardino Mountains south to Borrego Springs and the Chocolate Mountains, from Orocopia Mountains to the east, to the San Jacinto Plain and Palomar Mountain to the West. Cahuilla territory lies within the geographic center of Southern California and encompassed diverse environments ranging from inland river valleys and foothills to mountains and desert.

#### *Serrano*

The Serrano lived in the area generally north of Cahuilla territory (western Riverside County), occupying much of present-day San Bernardino county and northeastern Los Angeles county, but there is some overlap in the perceived ancestral areas. The term Serrano is Spanish for “mountaineer” or “highlander” and was given to people who inhabited the areas of the San Bernardino Mountains that had no associated mission.

With the Spanish intrusion came a drastic change in lifestyle for the natives of Southern California. Incorporation of the indigenous populations into the mission system led to the disruption of native cultures and changes in subsistence and land use practices. Mission San Gabriel, established in 1771, probably had a limited effect on the Serrano population until the San Bernardino Asistencia was established in what would become Redlands around 1820.

#### *San Bernardino County*

In 1820, a sub section of the Mission San Gabriel was established at the Native American village of Kaawchama in the area that would become the western portion of Redlands. In 1842, Antonio Maria Lugo was granted 35,500 acres of land known as Rancho San Bernardino which included the land for the proposed project. San Bernardino County was created in 1853 from portions of Los Angeles and San Diego counties. The City of San Bernardino was incorporated as the County Seat the following year. Agriculture ultimately replaced mining as the country’s economic base, with thousands of acres under cultivation by the beginning of World War I.





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## Redlands

After the Mormons left the San Bernardino Valley in the late 1850s, prominent individuals such as Ben Barton and Anson Van Leuven established ranches along what would become Barton Road. By the end of the decade, the area around the mouth of the Santa Ana Canyon was acquired by the Crafts family and would later become known as Crafton. The community that subsequently developed in the area between Crafton and the Old San Bernardino Mission district became known as Lugonia after Antonio Maria Lugo's family. By the early 1880s, two Lugonia entrepreneurs, E.G. Judson and F.E. Brown, formed the Redlands Water Company and began buying land and constructing reservoirs and canals to provide water to their acquisitions. Judson and Brown platted the town of Redlands in 1887. The town was incorporated the following year, fourth in the County of San Bernardino. Redlands prospered during the regional citrus boom, but from its founding it also developed with substantial contributions of "gentlemen ranchers," prosperous industrialists from the East Coast and the Midwest who established winter homes in the community.

## Discussion

**a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5? Less Than Significant Impact with Mitigation Incorporated.***

Historic resources generally consist of buildings, structures, improvements, and remnants associated with a significant historic event or person(s) and/or have a historically significant style, design, or achievement. Damaging or demolition of historic resources is typically considered to be a significant impact. Impacts to historic resources can occur through direct impacts, such as destruction or removal, and indirect impacts, such as a change in the setting of a historic resource.

Data from the SCCIC indicate there have been 33 cultural resource studies previously conducted within one mile of the proposed project, one of which specifically addressed the project area. One water conveyance was previously documented within the project area. This citrus irrigation system was made with an unusual combination of rock-and-mortar flumes, brick flow control weirs and concrete distribution standpipes. The combination of materials and technology suggests that the irrigation system was developed in the late 19<sup>th</sup> to early 20<sup>th</sup> century. The pipeline system has been severely damaged by orchard-removal activities with most of the standpipes displaced or destroyed; one of the flumes has been destroyed and the other three are disrupted to varying degrees.

The irrigation system within the project area was previously evaluated and was determined to be not eligible for the CRHR or local designation under the City Ordinance, and does not constitute a historical resource as defined by CEQA. Other resources adjacent to the project are a cobblestone curb and unremarkable remnants of local agriculture (a citrus orchard, associated residential foundation, water conveyance, wall, and driveway features) and there are no prehistoric or known Native American heritage-related resources documented within a mile of the project area. Therefore, sensitivity for undocumented subsurface cultural resources is low.

Smudge pots and smudge pot elements, as well as small, fragmented pieces of refuse was noted on the surface throughout the project site. The refuse is likely the result of the historic period practice of



using kitchen garbage as a 'soil amendment' or fertilizer in orchards. The eastern portion of a cobble masonry curb was noted in the Texas street right-of-way on the southern edge of the project and appeared to be in good condition. With the exception of the irrigation system discussed above, no cultural resources were identified within or on the periphery of the project site.

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** Prior to the issuance of a grading permit, the project proponent shall retain the services of a Registered Professional Archaeologist, to monitor all initial ground disturbing activities related to the project. In the event that prehistoric or historic-period archaeological cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and the project archaeologist shall assess the find and make recommendations regarding the treatment of the discovery. Impacts to significant archaeological deposits should be avoided if feasible, but if such impacts cannot be avoided, the deposits shall be evaluated for their eligibility to the California Register of Historical Resources. If the deposits are not California Register eligible, no further protection of the find is necessary. If the deposits are eligible, impacts shall be avoided or mitigated. Acceptable mitigation may consist of, but is not necessarily limited to, systematic recovery and limited nondestructive analysis of archaeological deposits, recording the resource, preparation of a report of findings.
- CUL-2** If significant archaeological cultural resources, as defined by CEQA Section 15064.5(a), or Tribal Cultural Resources (artifacts of Native American origin), are discovered, the qualified archaeologist shall develop a Monitoring and Treatment Plan for the remainder of the project site. The Monitoring and Treatment Plan shall be developed in coordination with Participating Tribe(s), the project proponent, and the City of Redlands. The project proponent shall secure monitoring agreements with the consulting tribe(s), prior to the recommencement of work, and the project archaeologist and tribal monitors shall monitor the remainder of the project site and implement the Plan accordingly.
- CUL-3** A final monitoring report with methods and findings shall be submitted to the project proponent, City of Redlands, Participating Tribes, and the South Central Coastal Information Center.
- CUL-4** The final report must describe the type, disposition, and significance of the resource(s), document the impacts to the resource(s), and describe mitigation measures and how they were fulfilled. Work on the other portions of the project site outside of the



buffered area may continue during the assessment period with the implementation of CUL-2. Details in the Monitoring and Treatment Plan shall include:

- a. Project grading and development scheduling.
- b. A monitoring schedule developed in coordination with the project proponent, the qualified archeologist, and Native American Tribal Monitors representing the Participating Tribes.
- c. Safety requirements, duties, scope of work, and the qualified archeologist's authority to stop and redirect grading activities in coordination with the City of Redlands, project proponent, and construction contractor.
- d. The protocols and stipulations that the project proponent, City of Redlands, Participating Tribes and qualified archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.
- e. In a confidential appendix, include the daily/weekly monitoring notes from the qualified archaeologist. The final report shall be completed within 60 days of the completion of ground disturbing activities.

***b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? Less Than Significant Impact with Mitigation Incorporated.***

Archaeological sites are locations that contain resources associated with former human activities, and may contain such resources as human skeletal remains, waste from tool manufacture, tool concentrations, and/or discoloration or accumulation of soil or food remains.

As discussed in **Impact V.a)** above, the resources adjacent to the project area are a cobblestone curb and unremarkable remnants of local agriculture, and no prehistoric or historic-period resources related to Native American cultural heritage are documented within a mile. Considering these factors, the project parcels have a low potential for subsurface resources. In accordance with CCR, Title 14, Chapter 3, Section 15064.5(f), 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. Mitigation Measures have been incorporated to ensure proper identification of inadvertent discoveries and subsequent monitoring following any inadvertent discoveries of archaeological resources. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource, and a less than significant impact would occur with mitigation.

***c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries? Less Than Significant Impact with Mitigation Incorporated.***



If human remains were found during ground-disturbing activities associated with the project, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by state law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the county coroner, notification of the Native American Heritage Commission (NAHC), and consultation with the individual identified by the NAHC to be the 'most likely descendant' (MLD). If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. These requirements are reinforced through Mitigation Measure CUL-5. Following compliance with state regulations and this mitigation measure, which detail the appropriate actions necessary in the event human remains are encountered, impacts would be less than significant with mitigation incorporated.

### **Mitigation Measures**

**CUL-5** In the event that human remains (or remains that may be human) or funerary objects are discovered at the Project Site during grading or earthmoving, the construction contractors shall immediately stop all activities within 100 feet of the find. The Project proponent shall then inform the San Bernardino County Coroner and the City of Redlands Police Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined as those of Native American origin, the project proponent shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC Section 5097). The coroner shall contact the NAHC to determine the MLD. The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant(s) to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will remain proprietary and not disclosed to the general public. The locations will be documented by a qualified archaeologist in conjunction with the MLD, City, and project proponent, and a report of findings will be filed with the South Central Coastal Information Center (SCCIC), the City of Redlands Development Services Department, and the appropriate Native American Tribe(s).





## VI. Energy

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>ENERGY:</b> <i>Would the project:</i>				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

- a) *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? Less Than Significant Impact.***

The main forms of available energy resources are electricity, natural gas, and oil. The project is a residential development containing 207 single-family one- and two-story detached homes. A description of the 2016 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operation, are provided below.

### **California Building Energy Efficiency Standards (Title 24, Parts 6 and 11)**

The 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6s and 11), commonly referred to as "Title 24," became effective on January 1, 2017. 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 2016 Title 24 standards are 28 percent more efficient than previous standards for residential development. The standards offer developers better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Further, the 2019 Building Energy Efficiency Standards, which take effect on January 1, 2020, will require photovoltaic (PV) systems in newly constructed low-rise residential buildings such as the one- and two-story homes proposed by



the project. These systems are required to generate at least the dwelling's annual electrical usage, unless there is substantial existing shading that would obstruct solar panels or if battery storage is also provided. With PV systems, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.

### **California Green Building Standards Code**

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of on-site solar PV systems infeasible, are exempted from the foregoing requirement.

### **Construction Energy Use**

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. All construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The project would also be subject to mandates on portable diesel generators and the EPA's strict on-road emissions standards for heavy-duty engines. Compliance with the In-Use Off-Road Diesel Vehicle Regulation and EPA regulations



would ensure the off-road equipment used during project construction activities would not result in an inefficient or wasteful use of energy or excessive fuel consumption. In addition, technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction in California over the next few years. As such, temporary energy use during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies and would not result in wasteful, inefficient or unnecessary consumption of energy during project construction.

### **Operational Energy Use**

Following completion of the proposed project, Southern California Edison (SCE) would provide electricity and Southern California Gas Company would provide natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential uses. The project does not include any unusual project characteristics or require special equipment that would be more energy intensive than typical uses. The project would include ENERGY STAR-rated appliances and energy efficient boilers and heating, ventilation, air conditioning (HVAC) systems, water-efficient landscaping, and/or solar PV panels in compliance with the most current Title 24 energy efficiency standards. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential development. With regard to transportation energy use, the proposed project would not have control over fuel consumption factors such as vehicle type(s), engine efficiency, vehicle miles traveled, etc. for residents. However, due to CARB's increasing vehicle efficiency standards, it is assumed the long-term transportation fuel consumption from residents would steadily decline over time and ensure that vehicle fuel consumption is not wasteful or inefficient.

The proposed project would be subject to all relevant provisions of the most recent update of the California Building Energy Efficiency Standards (Title 24) and CALGreen Code. Compliance with the Title 24 and the CALGreen Code would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

Based on the above discussions regarding construction and operational energy use, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

### ***b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? Less Than Significant Impact.***

State and local agencies regulate the use and consumption of energy through various methods and programs. As a result of the passage of Assembly Bill 32 (AB 32) (the California Global Warming Solutions Act of 2006), which seeks to reduce the effects of GHG emissions, a majority of the state regulations are intended to reduce energy use and GHG emissions. These include, among others, California Code of Regulations Title 24, Part 6–Energy Efficiency Standards, and the California Code of Regulations Title 24, Part 11–CALGreen.



At the local level, the City's Building and Safety Division enforces the applicable requirements of the Title 24 and CALGreen Code. On December 5, 2017, the City adopted a Climate Action Plan which identified specific strategies for increasing energy efficiency and reduce GHG emissions and updated the General Plan 2035. The General Plan includes policies and actions to promote energy efficiency. **Table 5: City of Redlands General Plan Consistency** discusses project consistency with relevant policies and actions in the General Plan.

As discussed above in **Table 5** and under **Impact VI.a)**, the proposed project would include energy-efficient appliances, heaters, HVAC systems, and solar PV electrical power generating systems and these features would comply with applicable State and local energy regulating policies. The project's energy consumption would be typical of other residential development projects in southern California and would not result in an increased energy demand beyond the capacity of SCE or the City. As such, the project would not conflict with or obstruct any plans for renewable energy or energy efficiency and a less than significant impact would occur.

**Table 5: City of Redlands General Plan Consistency**

Principles and Actions	Project Compliance
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.	Consistent. The project would comply with the State's Building Energy Efficiency Standards and CALGreen, which require the use of energy-efficient appliances, mechanical equipment, HVAC systems, and/or solar PV panels per the most current Title 24 standards. The project will include energy-efficient appliances, lighting, and mechanical equipment in their design. In addition, the proposed residences will be required to incorporate PV solar systems into their design to reduce the building energy efficiency demand on the local grid (if constructed under 2019 Title 24 standards).
8-A.1 Work with Southern California Edison Company (SCE) and Southern California Gas Company to educate the public about the need to conserve energy resources and the higher energy efficiency of new appliances and building materials.	
8-A.2 Support San Bernardino County and San Bernardino Associated Governments (SANBAG) in implementation of their energy-related policies.	
8-A.4 Continue pursuit of sustainable energy sources—such as hydroelectricity; geothermal, solar, and wind power; and biomethane—to meet the community's needs.	
8-A.5 Accelerate the adoption of solar power and/or other alternative energy usage in Redlands.	
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.	
8-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green	





Principles and Actions	Project Compliance
Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.	
8-A.10 Integrate trees and shade into the built environment, to mitigate issues such as stormwater runoff and the urban heat island effect.	Consistent. The project would include landscaping throughout the project site that will allow stormwater runoff to infiltrate and trees to provide shade.

Source: City of Redlands, General Plan 2035

## VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>GEOLOGY AND SOILS:</b>				
<i>Would the project:</i>				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

A geotechnical and infiltration evaluation (*Geotechnical Evaluation*)<sup>6</sup> was prepared for the proposed project by GeoTek, Inc. in October 2017; refer to Appendix D1 in this IS/MND. A review of the *Geotechnical Evaluation* was performed by Michael Baker International where it was concluded the report adequately addressed the subject matter for the purposes of evaluation under CEQA; refer to Appendix D2 in this IS/MND. The findings of the *Geotechnical Evaluation* are incorporated herein by reference.

## Discussion

**a)i) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. Less Than Significant Impact.***

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely along active faults, and typically occurs during earthquakes of magnitude five or higher. Ground rupture only affects the area immediately adjacent to a fault.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State

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<sup>6</sup> Updated Geotechnical and Infiltration Evaluation for Proposed Residential Development, Citrus Valley Project North of San Bernardino Avenue and West of Texas Street, City of Redlands, San Bernardino County, California. Prepared by GeoTek, Inc. October 24, 2017.



Geologist to establish regulatory zones, known as Alquist-Priolo (AP) Earthquake Fault Zones, around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet). According to the applicable AP Map for the project site<sup>7</sup>, the project site is not affected by a State-designated AP Earthquake Fault Zone. No active or potentially active fault is known to exist at this site, nor is the site situated within an AP Earthquake Fault Zone or a Special Studies Zone.<sup>8</sup> The nearest zoned fault to the site is the San Andreas Fault zone, San Bernardino Mountains section, located approximately 3.5 miles northeast of the site. Therefore, project implementation would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault and impacts would be less than significant.

***a)ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking? Less Than Significant Impact.***

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The site is located in a seismically active region.

According to the City's General Plan Faults Map<sup>9</sup>, the project site is located in an area of high seismic hazards. While the potential for strong seismic ground shaking cannot be eliminated, adherence to California Building Code (CBC) design requirements and other applicable standards and practices of earthquake resistant construction, as required by the California Building Permit process, would reduce such risk to the extent feasible. The proposed residential development would be constructed in accordance with the current CBC and other applicable standards and practices of earthquake-resistant construction and would also be required to comply with provisions set forth in Title 15 of the City of Redlands Municipal Code. This would reduce potential impacts from strong ground shaking to less than significant. Furthermore, the proposed residential development has been designed to be consistent with the General Plan Principles and Actions below that mitigate potential seismic hazards. Therefore, the project would have a less than significant impact with respect to seismic ground shaking.

**General Plan Principles and Actions**

**Healthy Community Element (Safety Principles and Actions)**

Principle 7-P.29: Investigate and mitigate geologic and seismic hazards or locate development away from such hazards, in order to preserve life and protect property.

<sup>7</sup> State of California, Department of Conservation California Geological Survey Website, Regional Geologic & Hazards Mapping Program-Alquist-Priolo Earthquake Fault Zone act, <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/Index>, Accessed July 30, 2019

<sup>8</sup> Bryant, W.A, and Hart E.W., 2007, "Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps," California Geological Survey: Special Publication 42.

<sup>9</sup> City of Redlands General Plan 2035, page 7-27.



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- Action 7-A.107: Continue to restrict development within Alquist-Priolo Earthquake Fault Zones and along other active and potentially active faults that have not yet received Alquist-Priolo classification.
- Action 7-A.108: Refer to the latest fault maps. Consult with the Division of Mines and Geology if there are issues or questions concerning fault alignment. Evaluate and, if necessary, perform site-specific investigation for development proposed on or near Alquist-Priolo Earthquake Fault Zones as well as within 500 feet of other active/potentially active faults.
- Action 7-A.115: Require soil erosion mitigation during construction.

**a)iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction? Less Than Significant Impact.**

Soil liquefaction occurs when loose, saturated sandy soil deposits lose internal strength and transform from a solid to a liquefied state due to reduced stresses within the soils mass. This phenomenon is most often induced by strong ground shaking associated with earthquakes. According to the General Plan Liquefaction Map,<sup>10</sup> the project site has low liquefaction potential. The subject site is not mapped within a zone of potentially liquefiable soils by the Department of Conservation or by the County of San Bernardino.<sup>11</sup> Liquefaction is not considered a hazard at the site due to the lack of shallow groundwater. Therefore, the project would have a less than significant impact with respect to substantial adverse effects associated with liquefaction.

**a)iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides? Less Than Significant Impact.**

According to the *Geotechnical Evaluation*, evidence of ancient landslides or slope instabilities at the project site was not observed during the site investigation. The site vicinity is located in an area that has relatively flat to gently sloping terrain, making the potential for landslides negligible. Additionally, the project site is not located in an area identified by the State of California as an earthquake-induced landslide hazard zone<sup>12</sup>. Therefore, the project would have a less than significant impact with respect to substantial adverse effects associated with landslides.

**b) Would the project result in substantial soil erosion or the loss of topsoil? Less Than Significant Impact.**

Development of the project is anticipated to involve grading and ground disturbance during construction activities. There is the potential for these activities to expose soils and increase the

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<sup>10</sup> City of Redlands General Plan 2035, page 7-28.

<sup>11</sup> GeoTek, Inc., 2017, page 7.

<sup>12</sup> GeoTek, Inc., 2017, page 13.





potential for soil erosion from wind or stormwater runoff. Pursuant to the CBC, the project applicant must prepare an Interim Erosion and Sediment Control Plan. The project is required to comply with the National Pollutant Discharge Elimination System (NPDES), and because the project would disturb a soil area of one (1) or more acres, the project is required to obtain and comply with the State Water Resources Control Board (SWRCB) NPDES General Permit No. CAS000002 waste discharge requirements (WDRS) for discharges of storm water runoff associated with construction activity. The project is also required to include preparation of a Storm Water Pollution Prevention Plan (SWPPP) that recommends appropriate Best Management Practices (BMPs) to control erosion and sediment. Compliance with the requirements of the CBC, as well as NPDES requirements for erosion control, grading, and soil remediation, would ensure that impacts related to soil erosion are reduced to less than significant.

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

The *Geotechnical Evaluation* found the site to be relatively flat and a soil composition of loose-to-medium dense sand with varying amounts of silt, gravel, and scarce cobbles. Groundwater is mapped at approximately 150 feet below the surface. The *Geotechnical Evaluation* recommends over-excavation of five (5) feet and compaction of 85 percent for cut lots and over-excavation of three (3) feet for flat work and streets. Over-excavated areas are recommended to be filled with engineered fill compacted to 90 percent.<sup>13</sup> Compliance with project design recommendations provided in the *Geotechnical Evaluation* would ensure that impacts related to the potential for landslides, liquefaction, lateral spreading, subsidence, or collapse with project implementation are reduced and a less than significant impact would occur.

- d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? Less Than Significant Impact.**

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. The expansion potential of any particular expansive soil is determined by the percentage of clay and the type of clay in the soil. Expansive near-surface soil is subject to high volume changes during seasonal fluctuations in moisture content, which can cause cracking of shallow foundations, floor slabs, concrete flatwork, and pavements. Portions of the City may support expansive soils.

According to the *Geotechnical Evaluation*, the expansion potential of the site's soil is considered very low.<sup>14</sup> Additionally, as discussed in **Impact VII.c)** above, the *Geotechnical Evaluation* recommends over-excavation of native soils and replacement with engineered fill. With implementation of the

<sup>13</sup> GeoTek, Inc., 2017, page 9

<sup>14</sup> GeoTek, Inc., 2017, page 7



recommended soils treatment and due to the classification of the soil on-site, substantial direct or indirect risks to life or property as a result of the project are less than significant.

- e) *Would the project 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.***

The proposed project would connect to City sewer and water service and does not propose the use of septic tanks. The City of Redlands Municipal Utilities and Engineering Department (MUED) provides sewer service.<sup>15</sup> There currently exists a 21-inch sewer line in San Bernardino Avenue and an 8-inch line in Texas Street. The project would connect to the sewer line in San Bernardino Avenue with the final configuration to be approved by MUED. Because no septic tanks are proposed, no impact would occur.

- f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less Than Significant Impact.***

The *Geotechnical Evaluation* and *Cultural Resources Assessment* did not report on any paleontological resource or unique geologic feature. The General Plan contains principles and actions, provided below, which establish strategies for the conservation of these resources, are applicable to the proposed project. Compliance with these principles and actions would ensure that potential impacts to undiscovered paleontological resources during project implementation would be reduced. Therefore, the project would have a less than significant impact with respect to destroying any unique paleontological resource or unique geologic feature.

#### **General Plan Principles and Actions**

Distinctive City Element (Archaeological and Paleontological Resources Actions)

- Action 2-A.75:      Require, as a standard condition of approval, that project applicants provide an assessment as to whether grading for the proposed project would impact underlying soil units or geologic formations that have a moderate to high potential to yield fossiliferous materials, prior to issuance of a grading permit. If the potential for fossil discovery is moderate to high, require applicants to provide a paleontological monitor during rough grading of the project.
- Action 2-A.76:      Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:
- If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource.

<sup>15</sup> Heritage Specific Plan, prepared by KTG Group Inc. May 2019, page 4-4



- If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within San Bernardino County if feasible.

## VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>GREENHOUSE GAS EMISSIONS:</b>				
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

The analysis and findings throughout this section are based on the *Heritage Residential Specific Plan Project – Air Quality/ Greenhouse Gas Emissions Technical Memorandum* prepared by Michael Baker International on September 25, 2019. This technical memorandum, referred to herein as *AQ/GHG Technical Memorandum*, is provided as Appendix A of this IS/MND.

### Global Climate Change

California is a substantial contributor of GHGs, emitting over 400 million tons of carbon dioxide (CO<sub>2</sub>) per year. Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit over the next century. Methane (CH<sub>4</sub>) 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.

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 CO<sub>2</sub>, CH<sub>4</sub>, and nitrous oxide (N<sub>2</sub>O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO<sub>2</sub> concentrations ranged from 180 to 300 parts per million. For the period from approximately 1750 to the present, global CO<sub>2</sub> concentrations increased from a pre-industrialization period concentration of 280 to 379 parts per million in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

### **Regulations and Significance Criteria**

The Intergovernmental Panel on Climate Change (IPCC) developed 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 parts per million CO<sub>2</sub> equivalent (CO<sub>2</sub>eq) concentration is required to keep global mean warming below two degrees Celsius, which in turn is assumed to be necessary to avoid significant levels of climate change.

Executive Order S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

Additionally, issued in April 2015, Executive Order B-30-15 requires statewide GHG emissions to be reduced to 40 percent below 1990 levels by 2030. AB 32 requires that the CARB determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons (MT) of CO<sub>2</sub>eq (MTCO<sub>2</sub>eq).

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the U.S., and the world to cumulatively contribute to global climate change.

### **Discussion**

#### ***a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Less Than Significant Impact.***

The City adopted the City of Redlands Climate Action Plan (CAP) on December 5, 2017. The CAP was designed to reinforce the City's commitment to reducing GHG emissions and to show how the City is going to comply with the State of California's GHG emission reduction standards. The CAP includes goals and policies to promote energy efficiency, waste reduction, and resource conservation and recycling. The CAP states that the City of Redlands has GHG emissions targets of: 6.1 MTCO<sub>2</sub>eq per capita per year for 2015, 6.0 MTCO<sub>2</sub>eq per capita per year for 2030, and 5.0 MTCO<sub>2</sub>eq per capita per year for 2035. The CAP states that "project-specific environmental documents prepared for



projects consistent with the General Plan may rely on the programmatic analysis contained in the CAP and the EIR certified for the Redlands General Plan.” As the project is expected to be operational in 2024, the most applicable CAP emissions target is 6.0 MTCO<sub>2</sub>eq per capita per year for 2030. As such, the project GHG emissions are compared to this local threshold.

### Project-Related Sources of Greenhouse Gases

The proposed project would result in direct and indirect emissions of CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub>, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The CalEEMod relies upon traffic data within the *Traffic Impact Analysis* and project-specific land use data to calculate emissions. **Table 6, Estimated Greenhouse Gas Emissions**, presents the estimated CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions of the proposed project. CalEEMod outputs are contained within Appendix A. In accordance with SCAQMD guidance, projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project. The amortized construction emissions are added to the annual average operational emissions.

As shown in **Table 6**, the total amount of proposed project-related GHG emissions from direct and indirect sources would total 3,151.68 MTCO<sub>2</sub>eq per year, resulting in GHG emissions of 5.36 MTCO<sub>2</sub>eq per service population per year. Therefore, as the proposed project does not exceed the CAP’s year 2030 emissions target of 6.0 MTCO<sub>2</sub>eq per capita per year, the project would not create a significant cumulative impact to global climate change and a less than significant impact would occur.





Table 6: Estimated Greenhouse Gas Emissions

Source	CO <sub>2</sub>	CH <sub>4</sub>		N <sub>2</sub> O		Total Metric Tons of CO <sub>2</sub> eq <sup>2</sup>
	Metric Tons/year <sup>1</sup>	Metric Tons/year <sup>1</sup>	Metric Tons of CO <sub>2</sub> eq <sup>2</sup>	Metric Tons/year <sup>1</sup>	Metric Tons of CO <sub>2</sub> eq <sup>2</sup>	
Direct Emissions						
Construction (amortized over 30 years) <sup>4</sup>	95.75	0.02	0.52	0.00	0.00	96.27
Area Source <sup>5</sup>	48.22	0.00	0.11	0.00	0.24	48.57
Mobile Source	2,311.05	0.11	2.85	0.00	0.00	2,313.90
<i>Total Direct Emissions<sup>3</sup></i>	<i>2,455.02</i>	<i>0.14</i>	<i>3.48</i>	<i>0.00</i>	<i>0.24</i>	<i>2,458.74</i>
Energy	589.71	0.03	0.65	0.01	2.44	592.80
Solid Waste	12.32	0.73	18.20	0.00	0.00	30.52
Water Demand	58.10	0.35	8.87	0.01	2.66	69.63
<i>Total Indirect Emissions<sup>3</sup></i>	<i>660.12</i>	<i>1.11</i>	<i>27.72</i>	<i>0.02</i>	<i>5.10</i>	<i>692.94</i>
<i>Total Project-Related Emissions<sup>3</sup></i>	<i>3,151.68 MTCO<sub>2</sub>eq/year</i>					
<i>Total Service Population Emissions<sup>6,7</sup></i>	<i>5.36 MTCO<sub>2</sub>eq/year</i>					
<i>City of Redlands Year 2030 GHG Emissions Target</i>	<i>6.0 MTCO<sub>2</sub>eq per capita per year</i>					
<i>Project Exceed 2030 Emissions Target?</i>	<i>No</i>					

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrogen oxide

- Emissions calculated using the CalEEMod version 2016.3.2.
- Carbon dioxide equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>, accessed September 5, 2019.
- Totals may be slightly off due to rounding.
- As a condition of approval, the proposed project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rule 403 that would further reduce construction emissions. The reduction/credits for construction emission mitigations are based on mitigation included in the CalEEMod model and as typically required by the SCAQMD. Reduction credits are associated with activities involving: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
- Mitigated area source emissions include application of SCAQMD Rule 445 (Wood-Burning Devices). Only natural gas hearths would be allowed on the project site per SCAQMD rules and regulations.
- The service population of 588 is based on the most recent Census/American Community Survey average household size for the City of Redlands.
- The project's total service population emissions were calculated by dividing the total proposed project-related emissions (3,151.68 MTCO<sub>2</sub>eq/year) by the service population (588); therefore, 3,151.68/588= 5.36.

Refer to Appendix A for detailed model input/output data.

**b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Less Than Significant Impact.**

The City's CAP is designed to demonstrate how the City will comply with the State's GHG emission reduction standards. The CAP's GHG emission targets and goals are based on meeting the goals in



Executive Order B-30-15 and SB 32, as well as following the CAP guidelines established in the 2017 Scoping Plan. The CAP includes emissions targets of 6.0 MTCO<sub>2</sub>eq per capita per year for 2030 and 5.0 MTCO<sub>2</sub>eq per capita per year for 2035. As the project would result in 5.36 MTCO<sub>2</sub>eq per service population per year, the project's GHG emissions would not exceed the most applicable CAP emissions target of 6.0 MTCO<sub>2</sub>eq per capita per year for 2030. Therefore, the project would be in compliance with the reduction goals of the CAP, AB 32, and SB 32.

Furthermore, the project would comply with applicable CALGreen, 2019 Title 24 standards, General Plan, and CAP policies regarding sustainability. Compliance with CALGreen measures would ensure the project installs water conserving plumbing fixtures and fittings, as well as electric vehicle charging spaces. Furthermore, 2019 Title 24 standards would require installation of solar photovoltaic panels within residential developments, which would reduce energy usage by 53 percent compared to the 2016 Title 24 standards. Additionally, the CAP is designed to provide discrete actions to operationalize the General Plan policies that help with GHG reduction. As the project would be in compliance with the reduction goals of the CAP, the project would also be in compliance with the General Plan. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts would be less than significant in this regard.

## IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>HAZARDS AND HAZARDOUS MATERIALS:</b>				
<i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

The analysis and findings throughout this section are based on the *Phase I Environmental Site Assessment (Phase I ESA)* prepared by Converse Consultants on October 20, 2017; refer to Appendix E1 in this IS/MND. Michael Baker International performed a review of the *Phase I ESA* on July 19, 2019 and provided a memorandum to the City of Redlands noting areas where additional information could be provided; refer to Appendix E2 in this IS/MND. The findings of the *Phase I ESA* are incorporated herein by reference.

## Discussion

### **a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Less Than Significant Impact.**

Residential land uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Future residents may use common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and quantity used, the routine use of these products would not represent a substantial risk to public health or the environment. Therefore, a less than significant impact would occur.



- b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Less Than Significant Impact With Mitigation Incorporated.**

### **Construction Impacts**

Construction activities associated with the proposed project would involve the use of heavy equipment and various construction materials such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

### **Existing On-Site Hazardous Materials**

The *Phase I ESA* determined that the project site was developed for agricultural use in 1930 and remnants of agricultural use were present during the preparation of the *ESA*. The *Phase I ESA* did not identify any existing Recognized Environmental Conditions (RECs) on the project site or on adjoining sites; however, the historical use of the site is considered an REC due to the potential for residual agricultural chemicals in the soil from historic agricultural operations. Soil tests were being prepared concurrently with the *Phase I ESA* to determine the possibility of residual pesticides in the soils, the results of which are currently being confirmed by the City.

The *Phase I ESA* also acknowledged a potential concern regarding asbestos relative to the irrigation pipes and recommended exploratory trenching. Therefore, Mitigation Measure **HAZ-1** is provided below to address this potentially significant impact. With implementation of Mitigation Measure **HAZ-1**, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, a less than significant impact would occur.

### **Operational Impacts**

Operational activities would include standard maintenance (i.e., landscape upkeep, exterior painting and similar activities) involving the use of commercially available products (e.g., pesticides, herbicides, gas, oil, paint, etc.) the use of which would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental release of hazardous materials into the environment.

### **Mitigation Measures**

- HAZ-1** The project applicant shall conduct exploratory trenching to determine the presence or absence of asbestos within the existing irrigation pipes used for past agricultural operations. In the event that asbestos is identified during trenching, the City shall be notified and a remediation protocol shall be implemented by the project applicant. A



remediation report shall be provided to the City upon completion of remediation activities.

- c) *Would the project 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.***

The project site is located south of Citrus Valley High School on the opposite side of Pioneer Avenue. Although the residential development occurs within 0.25-mile of a school, no hazardous materials would be emitted as a result of the construction of the residential units. The storage and use of hazardous materials are not associated with residential uses; therefore, impacts associated with emission of hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of a school would be less than significant.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? No Impact.***

According to the California Environmental Protection Agency's Cortese List Data Resources Database,<sup>16</sup> the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, no impact would occur.

- 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 1.9 miles to the northwest and Redlands Municipal Airport is located 2.2 miles to the east. The City of San Bernardino 2005 General Plan, Figure LU-4 San Bernardino International Airport Planning Boundaries, shows that the northwestern corner of the project site would fall within the Airport Influence Area, however, the project site is located outside of the noise contour lines. As shown in 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. 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.

- f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Less Than Significant Impact.***

The project site does not contain any emergency facilities and does not serve as an emergency evacuation route. During project construction, the contractor would be required to maintain adequate emergency access for emergency vehicles as required by the City. Development of the site with single-

<sup>16</sup> California Environmental Protection Agency website. <http://www.calepa.ca.gov/sitecleanup/corteseelist/>, accessed July 29, 2019.





family residential homes would not interfere with an adopted emergency response or evacuation plan. Access to the future residential development would be provided via Texas Street and San Bernardino Avenue and would be maintained for ingress/egress.

In addition, the project does not propose any changes to adjacent roadways, including Texas Street, Pioneer Avenue, or San Bernardino Avenue, that could potentially impair emergency response or evacuation (lane reductions, narrowing, permanent road closures, etc.). Therefore, the project would not interfere with an adopted emergency response or evacuation plan and a less than significant impact would occur.

**g) *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? Less Than Significant Impact.***

According to General Plan Figure 7-4, Fire Hazards, high fire risk areas in Redlands include San Timoteo and Live Oak Canyons, in addition to Crafton Hills. Additionally, according to the General Plan, open spaces in the City are susceptible to destructive wildland fires, often exacerbated by dry weather and Santa Ana winds. The project site is not located in or near a State Responsibility Area and does not contain lands classified as very high fire hazard severity zones. The proposed project is located in an urbanized area of the City and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. This impact would be less than significant.

## **X. Hydrology and Water Quality**

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>HYDROLOGY AND WATER QUALITY:</b>				
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

This section relies on information contained in the *Hydrology and Hydraulics Preliminary Report* (December 2018) and a *Preliminary Water Quality Management Plan (WQMP)* (December 2018) that were prepared for the proposed project, included as Appendix F1 and F2 in this IS/MND, respectively.

## Discussion

### **a) Would the project 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 U.S. EPA has established regulations under the NPDES program to control direct storm water discharges. In California, the SWRCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City is within the jurisdiction of the Santa Ana River RWQCB.



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### Construction Impacts

Construction activities associated with the proposed residential development would be subject to NPDES requirements. Construction sites with one acre or more of soil disturbance are required to apply for coverage for discharges under the General Construction Permit by submitting an Notice of Intent (NOI) for coverage, developing a SWPPP, which would include a site plan showing existing and proposed buildings, lots, roadways, storm water collection and discharge points, drainage patterns across the project, and general topography both before and after construction. The project would disturb one or more acres, thus, is subject to compliance with NPDES requirements. The SWPPP must list BMPs to be implemented in order to minimize the impact of storm water runoff and address construction site pollutants.

Pursuant to Redlands Municipal Code Section 15.54.160, new development or development projects shall implement stormwater management practices to minimize runoff and increase infiltration. The City of Redlands 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 on water quality to less than significant.

### Operational Impacts

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 207 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 *Hydrology and Hydraulics Preliminary 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.

- b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? Less Than Significant Impact.***



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 2015 San Bernardino Valley Regional Urban Water Management Plan (UWMP), amended in June 2017. 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 waste water treatment plant).

The project involves development of 207 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.

#### **General Plan Principles and Actions**

##### **Sustainable Community Element (Water Conservation Actions)**

Principle 8-P.6: Minimize dependence on imported water through efficient use of local surface sources, using wise groundwater management practices, conservation measures, and the use of reclaimed wastewater and non-potable water for irrigation of landscaping and agriculture, where feasible.

Action 8-A.25 Encourage water conservation through the following strategies:

- Establish water and wastewater rates that encourage conservation and provide for system maintenance.
- Update the landscape irrigation ordinance to continue reducing the use of potable water for landscape irrigation to CALGreen requirements. All



aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater.

- Establish incentives for use of water efficient fixtures and fittings. Expand the current landscaping ordinance for parking lots (Section 18.168.210 of the Municipal Code) to encourage the use of drought tolerant species.
- Promote the use of permeable surfaces for hardscape. Impervious surfaces such as driveways, streets, and parking lots should be minimized so that land is available to absorb stormwater, reduce polluted urban runoff, recharge groundwater, and reduce flooding.
- Incorporate water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality, and decrease flooding into the urban landscape.

Action 8-A.28      Permit greywater use for irrigation, and adopt ordinance or other measures allowing for expanded use of graywater as permitted by the California Plumbing Code.

**c)i) Would the project 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 result in substantial erosion or siltation on- or off-site? Less Than Significant Impact.**

The project proposes to develop a residential community with associated parks and 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. The project would include on-site infiltration in the form of two infiltration basins to capture and dispose of stormwater. 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, landscaping, and bioswales, and therefore the development would not be subjected to substantial erosion. Impacts would be less than significant.

**c)ii) Would the project 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 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 City's storm water drainage system serves an area of approximately 37 square miles. Stormwater runoff flows by gravity into the Mission Channel, Morrey Arroyo Creek, and San Timoteo Canyon,





and discharges to the Santa Ana River. Drainage throughout the city is generally from east to west to one of two main existing major storm water drainage facilities.

The development of 207 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, a detention basin is proposed at the project outlet onto Pioneer Avenue to mitigate increases in storm water runoff leaving the site. The offsite existing flow patterns will be retained. According to calculations in the *Hydrology and Hydraulics Preliminary Report* (December 2018) prepared for the project, 10-year storm flows would be retained within the streets and within the curb face of the streets, and 100-year storm flows would be retained within the streets and within the street right-of-way. In addition, the project site is not located in an area identified as a flood risk area based on the General Plan's Flood Hazard Map (General Plan Figure 7-3). Therefore, the project would not substantially increase the rate or amount of surface runoff, which could result in on- or off-site flooding. Impacts would be less than significant.

***c)iii) Would the project 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 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.***

During construction, the project applicant would be required to comply with drainage and runoff guidelines pursuant to the City of Redlands. Compliance with these guidelines would reduce the potential for polluted runoff. The project is subject to the City's water quality and NPDES requirements. A WQMP has been prepared for the project.

Operation of the proposed project would increase the net area of impermeable surfaces on the site; however, the project applicant would be required to obtain permits to connect to the existing storm drainage system prior to construction. Therefore, the increase in discharges would not affect local storm drain capacity. The project would not result in substantial pollutant loading such that treatment control BMPs would be required to protect downstream water quality. A detention basin is proposed at the project outlet onto Pioneer Avenue to mitigate increases in storm water runoff leaving the site. Drainage in Pioneer Avenue west of the project site travels along the southerly edge of the existing pavement in a shallow earthen channel that outlets into the I-210 channel. This drainage pattern would be maintained with the proposed development. With implementation of the BMPs and adherence to existing water quality and NPDES requirements, impacts from polluted runoff, such as from oil and other pollutants from parking areas, would be reduced to acceptable levels. Impacts would be less than significant.

***c)iv) Would the project 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 impede or redirect flood flows? Less Than Significant Impact.***



While the project would alter the existing drainage pattern onsite through the addition of impervious surfaces, the implementation of project design features--specifically, the onsite detention basin--would reduce this impact to a less than significant level.

**d) Would the project 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 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.

**e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? No Impact.**

The proposed project has developed a WQMP to address the project's quality and quantity of stormwater runoff and provide BMPs for the construction and operation of the project to ensure compliance with the current General Stormwater Permit. The proposed project would be consistent with the management strategy outlined by the UWMP for local surface water and groundwater in the San Bernardino Valley. As such, the proposed project would not conflict with or obstruct the General Stormwater Permit or the San Bernardino Valley Regional UWMP. There would be no impact.

## **XI. Land Use and Planning**

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>LAND USE AND PLANNING:</b>				
<i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.



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## Discussion

**a) *Would the project physically divide an established community? No Impact.***

The physical division of an already established community typically refers to the construction of a linear feature, such as an interstate highway, railroad tracks, or removal of a means of access, such as a bridge, which would impact mobility within an existing community and an outlying area. The proposed project does not propose construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. The project proposes to develop single-family residences with associated utilities, infrastructure, open space and recreational areas. The proposed project is consistent with the surrounding land uses and would not divide an established community. Therefore, no impact would occur.

**b) *Would the project 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 proposes to amend the existing General Plan land use designation on the project site from Commercial to Low Density Residential. The Low Density Residential land use designation allows for the development of single-family residential development, with a maximum density of 6 du/ac, with an overall gross density of approximately 5.7 du/ac. While the development does require a land use change for the project site, the proposed development would be subject to all land use and planning policies in the General Plan.

Additionally, the proposed project would involve a change in the existing zoning designation. The current zoning designation of the project site is Special Development District (EV/SD) of the East Valley Corridor Specific Plan. The EV/SD is intended to provide an alternative, more flexible site planning process for professional, commercial, or industrial developments, or mixed use and permits agriculture as an interim use. A specific plan amendment is proposed as part of the project to remove the project site from the East Valley Corridor Specific Plan and establish the Heritage Specific Plan. The proposed single-family homes and related infrastructure would be subject to development standards established by the Heritage Specific Plan, including design guidelines to define the community and visual character.

The proposed project would be consistent with both the General Plan and Zoning Code. Furthermore, the project-level review of the project includes a site design review to ensure compliance with site-specific development standards, as outlined in the City's Zoning Code and other applicable ordinances. With compliance with the above plans and policies, the proposed project would not conflict with any land use plan, policy or regulation, and a less than significant impact would occur.



## XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>MINERAL RESOURCES:</b> <i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

**a) *Would the project 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.***

Redlands is required by the Surface Mining and Reclamation Act of 1975 (SMARA) to adopt policies recognizing the importance of the identified mineral resources, clarifying the intent that this information is to be used when making land use decisions in areas designated to be of statewide or regional significance, and emphasizing the conservation and development of identified mineral deposits. Figure 6-4, Mineral Resources, in the Vital Environment Element 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). The classifications used to define MRZs are as follows:

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2: Areas where geologic data indicate that significant PCC-Grade aggregate resources are present
- MRZ-3: Areas containing known or inferred mineral occurrences of undetermined mineral resource significance.

According to Figure 6-4, Mineral Resources, in the General Plan, the project site is located within an area designated as MRZ-2. The Santa Ana Wash adjoining Redlands contains high quality construction



aggregates that have been mined since the 1920s. Mining in the Santa Ana Wash is being done on both sides of the boundary between the cities of Redlands and Highland, and new areas are currently being proposed for mining along the northern Planning Area boundary.<sup>17</sup>

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.

The project site is located within a portion of Regionally Significant Construction Aggregate Resource Area. However, construction aggregate is located throughout this region within the jurisdictions of the City of Redlands, City of Highland, and large portions of the County of San Bernardino. Development of the project could impact 37.2 acres of prime mineral resources within the City of Redlands. However, as identified in Principle 6-P.18 of the General Plan, the City will reserve designated MRZ areas outside the Santa Ana Wash for agricultural or urban use. The project is located outside of the Santa Ana Wash (approximately 0.75-mile to the south) and is consistent with designated land uses at the Project site. Furthermore, the site is located directly adjacent to existing residential development that 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. Consequently, potential impacts to these resources are considered to be less than significant.

#### **General Plan Principles and Actions**

##### **Vital Environment Element (Construction Aggregate Principles)**

Principle 6-P.18: Reserve designated Mineral Resource Zone (MRZ) areas outside the Santa Ana River Wash for agricultural or open space uses.

***b) Would the project 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? Less Than Significant Impact.***

Refer to **Impact XII.a)** above. The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site and potential impacts regarding mineral resources would be less than significant.

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<sup>17</sup> City of Redlands General Plan 2035, p. 6-13.





### XIII. Noise

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>NOISE:</b> <i>Would the project result in:</i>				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

The analysis and findings throughout this section are based on the *Heritage Residential Specific Plan Project–Noise Technical Memorandum* prepared by Michael Baker International on September 23, 2019. This technical memorandum, referred to herein as *Noise Technical Memorandum*, is provided as Appendix G of this IS/MND.

#### **Fundamentals of Sound And Environmental Noise**

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. Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is perceived to be twice as loud and 20 dBA higher is perceived to be four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). 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 several 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 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.

### **Fundamentals of Environmental Groundborne Vibration**

Sources of earth-borne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second is used to evaluate construction-generated vibration for building damage and human complaints.



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## Discussion

- a) ***Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Less Than Significant Impact With Mitigation Incorporated.***

### **Construction Noise Impacts**

Temporary increases in ambient noise levels as a result of the project would predominantly be associated with construction activities. Construction activities would occur over approximately 42 months and would include the following phases: grading, building construction, paving, and architectural coating. Project construction would require excavators, graders, rubber-tired dozers, scrapers, tractors/loaders/backhoes during grading; cranes, forklifts, generator sets, tractors/loaders/backhoes, welders, during building construction; pavers, paving equipment, rollers, during paving; and lastly air compressors during architectural coatings. Typical noise levels generated by construction equipment are shown in **Table 7, Maximum Noise Levels Generated by Construction Equipment**.

The property line of the nearest sensitive receptors (i.e., residential uses) are located approximately 67 feet east of the proposed construction area. As shown in **Table 7**, project-related construction noise levels would range between 74 dBA and 87 dBA at a distance of 67 feet. Although these receptors would experience increased noise levels during project construction activities, the City does not have construction noise standards. Rather, Section 8.06.120 of the Redlands Municipal Code exempts construction activities from the noise standards provided that such activities take place between 7:00 a.m. to 6:00 p.m. on weekdays, including Saturdays, with no construction activities occurring on Sundays or Federal holidays. These permitted hours of construction are included in the Redlands Municipal Code in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Construction would occur throughout the site and would not be concentrated or confined in an area directly adjacent to sensitive receptors. Therefore, construction noise would be acoustically dispersed throughout the site and not concentrated in one area near adjacent sensitive uses. Although project-related construction activities would not exceed applicable noise standards at off-site uses (the City does not have construction noise limits), Mitigation Measure **NOI-1** would reduce construction noise levels and minimize noise disturbances at off-site uses through implementation of several construction noise best management practices.

**Table 7: Maximum Noise Levels Generated by Construction Equipment**

Type of Equipment	Acoustical Use Factor <sup>1</sup>	L <sub>max</sub> at 50 Feet (dBA)	L <sub>max</sub> at 67 Feet (dBA)
Concrete Saw	20	90	87
Crane	16	81	76
Concrete Mixer Truck	40	79	76
Backhoe	40	78	75
Dozer	40	82	79
Excavator	40	81	78
Forklift	40	78	75
Paver	50	77	74
Roller	20	80	77
Tractor	40	84	81
Water Truck	40	80	77
Grader	40	85	82
General Industrial Equipment	50	85	82

Notes: dBA = dBA = A-weighted decibels; L<sub>max</sub> = Maximum Sound Level

1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during construction operation.

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

### **Operational Noise Impacts**

As previously described, the project would allow construction of approximately 207 one- and two-story, single-family detached residences and associated infrastructure. As such, project operations include daily activities that would increase mobile traffic noise levels in the project vicinity. The project would also introduce new sources of stationary noise sources that are discussed below.

#### **Off-Site Mobile Noise**

The proposed project would result in additional traffic on adjacent roadways from daily activities, thereby increasing vehicular noise in the vicinity of existing and proposed land uses.

#### ***Daily Activities***

Based on the project *Traffic Impact Analysis*, typical daily activities are forecast to generate 1,956 average daily trips, including 153 trips during the a.m. peak hour and 205 trips during the p.m. peak hour. The “Horizon Year Without Project” and “Horizon Year With Project” scenarios are compared in **Table 8, Future Traffic Noise Levels**. As depicted in **Table 8**, under the “Horizon Year Without Project” scenario, noise levels would range from approximately 57.6 dBA to 67.3 dBA, with the highest noise levels occurring along the West San Bernardino Avenue roadway segment from Citrus Plaza Drive to Tennessee Street. The “Horizon Year With Project” scenario noise levels would range



from approximately 57.6 dBA to 67.4 dBA, with the highest noise levels occurring along the West San Bernardino Avenue roadway segment from Citrus Plaza Drive to Tennessee Street.

**Table 8: Future Traffic Noise Levels**

Roadway Segment	Horizon Year Without Project					Horizon Year With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Citrus Plaza Drive											
South of West San Bernardino Avenue	18,000	64.1	188	87	-	18,100	64.1	188	87	-	0.0
West San Bernardino Avenue											
West of Citrus Plaza Drive	27,100	67.1	299	139	65	27,200	67.2	300	139	65	0.0
Citrus Plaza Drive to Tennessee Street	38,700	67.3	306	142	66	39,400	67.4	310	144	67	0.1
South Tennessee Street to North Tennessee Street	34,000	66.7	279	130	60	35,100	66.8	285	132	61	0.1
Tennessee Street to Driveway1	28,100	65.9	246	114	53	29,200	66.0	252	117	54	0.2
Driveway 1 to Texas Street	28,100	65.9	246	114	53	28,500	65.9	248	115	53	0.1
East of Texas Street	19,600	64.3	193	90	42	19,900	64.4	195	91	42	0.1
Tennessee Street											
South of West San Bernardino Avenue (I-210)	17,700	61.3	123	57	-	17,800	61.4	123	57	-	0.0
North of West San Bernardino Avenue	8,600	58.2	76	35	-	8,600	58.2	76	35	-	0.0
South of West San Bernardino Avenue	8,100	57.9	73	34	-	8,100	57.9	73	34	-	0.0
Pioneer Avenue											
West of Texas Street	10,400	59.0	86	40	-	10,400	59.0	86	40	-	0.0
East of Texas Street	10,300	59.0	86	40	-	10,400	59.0	86	40	-	0.0
Texas Street											
North of Pioneer Avenue	7,400	57.6	69	-	-	7,400	57.6	69	-	-	0.0
Pioneer Avenue to Driveway 2	7,800	57.8	71	33	-	7,900	57.8	72	33	-	0.1
Drive way 2 to West San Bernardino Avenue	7,700	57.7	70	33	-	8,700	58.3	76	35	-	0.5
West San Bernardino Avenue to West Pennsylvania Avenue	9,800	61.3	122	57	-	10,300	61.5	126	58	-	0.2
West Pennsylvania Avenue to Lugonia Avenue	10,200	61.5	125	58	-	10,700	61.7	129	60	-	0.2
South of Lugonia Avenue	13,200	62.6	149	69	-	13,400	62.6	150	70	32	0.1
Lugonia Avenue											
West of Texas Street	22,500	62.4	144	67	-	22,700	62.4	145	67	-	0.0
East of Texas Street	22,000	64.9	212	98	46	22,100	64.9	212	99	46	0.0
Interstate 210											
I-210 Northbound On-ramp	27,000	65.7	239	111	51	27,400	65.7	241	112	52	0.1
I-210 Southbound Off-ramp	21,800	64.7	207	96	45	22,200	64.8	210	97	45	0.1

Notes: ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

1. The "Future With Project" scenario is the worst-case scenario as it is based on the maximum special event trips (i.e. factored major retreat trips).

Source: Noise modeling is based on traffic data within Urban Crossroads' *Pioneer & Texas Residential Traffic Impact Analysis*, dated April 6, 2019.

**Table 8** also shows the difference between the "Horizon Year Without Project" scenario and the "Horizon Year With Project" scenario. As depicted in **Table 8**, traffic associated with the proposed project would result in a maximum increase of 0.5 dBA along Texas Street from Driveway 2 to West





San Bernardino Avenue. A significant impact would result only if both of the following occur: an exceedance of the City's residential exterior noise standards (i.e., 60 dBA CNEL) and a perceptible increase in traffic noise levels (i.e., noise increase would be greater than 3.0 dBA).

As shown in **Table 8**, daily traffic levels with the project would not cause a perceptible increase in traffic noise levels (i.e., noise increase would be greater than 3.0 dBA) along any of the surrounding roads. "Horizon Year With Project" traffic noise levels along segments of Tennessee Street, Texas Street and Pioneer Street would not exceed the City's residential exterior noise standards (i.e., 60 dBA CNEL). All segments along West San Bernardino Avenue, Citrus Plaza Drive, I-210, and Lugonia Avenue, and some segments of Texas Street and Tennessee Street would exceed the City's residential exterior noise standard of 60 dBA CNEL under the "Horizon Year With Project" scenario. However, these segments would also exceed the City's residential exterior noise standards under the "Horizon Year Without Project" scenario and/or result in an imperceptible increase in traffic noise (i.e., less than 3.0 dBA). As the project would not cause an exceedance of the City's residential exterior noise standards in combination with a perceptible increase in traffic noise levels, the proposed project would not significantly increase noise levels along the roadway segments analyzed. Therefore, a less than significant impact would occur in this regard.

### **Cumulative Mobile Source Impacts**

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by cumulative projects. The following criteria have been utilized to evaluate the combined effect of cumulative noise increase.

- **Combined Effect.** The cumulative with project noise level ("Cumulative (2024) With Project") would cause a significant cumulative impact if a 3.0 dBA increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed project in combination with other related projects, it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.
- **Incremental Effects.** The "Cumulative (2024) With Project" causes a 1.0 dBA increase in noise above the "Cumulative (2024) Without Project" noise level.

A significant impact would result only if both the combined (including an exceedance of the applicable exterior standard at a sensitive use) and incremental effects criteria have been exceeded. Noise, by definition, is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the site vicinity would contribute to cumulative noise impacts. **Table 9, Cumulative Noise Scenario**, lists the traffic noise effects along roadway segments in the project vicinity for "Existing," "Cumulative (2024) Without Project," and "Cumulative (2024) With Project" conditions, including incremental and net cumulative impacts.



As indicated in **Table 9**, the “Combined Effects” criterion of 3.0 dBA and “Incremental Effects” criterion of 1.0 dBA is not exceeded along any of the study area roadways. Therefore, the proposed project, would result in a less than significant impact in this regard.

**Table 9: Cumulative Noise Scenario**

Roadway Segment	dBA @ 100 Feet from Roadway Centerline			Combined Effects	Incremental Effects	Cumulative (2024) with Project Noise Level Exceeds City's 60 dBA CNEL Residential Noise Standard?	Cumulatively Significant Impact? <sup>1</sup>
	Existing	Cumulative (2024) without Project	Cumulative (2024) with Project	Difference in dBA Between Cumulative With Project and Existing	Difference in dBA Between Cumulative With Project and Cumulative Without Project		
Citrus Plaza Drive							
South of West San Bernardino Avenue	63.1	63.7	63.7	0.6	0.0	Yes	No
West San Bernardino Avenue							
West of Citrus Plaza Drive	65.2	66.7	66.7	1.5	0.0	Yes	No
Citrus Plaza Drive to Tennessee Street	65.4	66.9	66.9	1.5	0.0	Yes	No
South Tennessee Street to North Tennessee Street	64.2	66.2	66.3	2.1	0.1	Yes	No
Tennessee Street to Driveway 1	63.6	64.9	65.1	1.5	0.2	Yes	No
Driveway 1 to Texas Street	63.7	65.0	65.1	1.4	0.1	Yes	No
East of Texas Street	63.1	64.1	65.1	2.0	1.0	Yes	No
Tennessee Street							
South of West San Bernardino Avenue (I-210)	58.9	60.9	61.0	2.1	0.1	Yes	No
North of West San Bernardino Avenue	53.6	54.3	54.3	0.7	0.0	No	No
South of West San Bernardino Avenue <sup>2</sup>	-	57.4	57.4	-	0.0	No	No
Pioneer Avenue							
West of Texas Street	58.0	58.6	58.6	0.6	0.0	No	No
East of Texas Street	57.9	58.6	58.6	0.7	0.0	No	No
Texas Street							
North of Pioneer Avenue	55.0	57.2	57.2	2.2	0.0	No	No
Pioneer Avenue to Driveway 2	55.1	57.4	57.4	2.3	0.0	No	No
Driveway 2 to West San Bernardino Avenue	55.0	57.3	57.9	2.9	0.6	No	No
West San Bernardino Avenue to West Pennsylvania Avenue	59.8	60.9	61.1	1.3	0.2	Yes	No
West Pennsylvania Avenue to Lugonia Avenue	60.0	61.1	61.3	1.3	0.2	Yes	No
South of Lugonia Avenue	61.1	62.2	62.2	1.1	0.0	Yes	No
Lugonia Avenue							
West of Texas Street	58.5	60.0	60.0	1.5	0.0	No	No
East of Texas Street	61.7	62.7	62.7	1.0	0.0	Yes	No
Interstate 210							
I-210 northbound on-ramp	63.5	65.3	65.3	1.8	0.0	Yes	No
I-210 southbound off-ramp	62.5	64.3	64.4	1.9	0.1	Yes	No
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level							

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Notes:

A cumulative impact would occur if the “Combined Effects” and “Incremental Effects” criterion are exceeded and the modeled noise level exceeds the City's exterior noise standard shown in [Table 5](#).

Tennessee Street south of San Bernardino Avenue is planned for future development; therefore, the roadway does not generate any trips under existing conditions.

Source: Noise modeling is based on traffic data within the Urban Crossroads' *Pioneer & Texas Residential Traffic Impact Analysis*, dated April 6, 2019.



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## **Stationary Noise**

The project would allow construction of approximately 207 one- and two-story, single-family detached residences and associated infrastructure. Sources of noise that are typical of residential uses include garbage trucks, parking areas, and HVAC units.

### ***Garbage Trucks***

The proposed project would involve occasional trash/recycling pickups from slow-moving garbage trucks. Trash/recycling pickup would occur throughout the site. Low-speed truck noise results from a combination of engine, exhaust, and tire noise as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck air-brakes. However, trash/recycling truck operations would be short-term and irregular and are considered part of standard operations in the area (i.e. existing trash/recycling collection activities at adjacent uses). Therefore, trash/recycling pickups would not introduce a new intrusive noise source compared to existing conditions. As such, a less than significant impact would occur in this regard.

### ***Mechanical Equipment Noise***

HVAC units would be installed as part of the proposed project. HVAC systems can result in noise levels of approximately 52 dBA  $L_{eq}$  at 50 feet from the source. At the time of this analysis, the exact location of future HVAC units on-site is unknown. However, the closest potential location of HVAC units on the site to the nearest sensitive receptor (i.e. residents to the east) would be approximately 80 feet. At this distance, HVAC noise levels would be approximately 48 dBA. Additionally, a six-foot stone wall would be constructed between the nearest HVAC unit and the closest sensitive receptor. This six-foot wall would break the line of sight between the HVAC unit and the sensitive receptor and would attenuate the HVAC noise levels by approximately 8 dBA. Thus, noise levels produced by the nearest HVAC unit would be closer to 40 dBA. As such, HVAC noise levels would not exceed Redlands Municipal Code Section 8.06.070 exterior noise standards of 60 dBA (daytime) and 50 dBA (nighttime). Impacts would be less than significant in this regard.

### ***Parking Lot Noise***

The project proposes residential parking spaces with a minimum of two enclosed garage spaces per unit for a total of approximately 414 spaces. There would also be two additional driveway parking spaces per unit. In total, the site would provide approximately 828 parking spaces.

Traffic associated with residential parking areas is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the day-night average sound level (DNL) (or  $L_{dn}$ ) scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking activities are presented in **Table 10, Maximum Noise Levels Generated by Parking Lots**.

As shown in **Table 10**, parking noise levels range between 53 dBA and 61 dBA at a distance of 50 feet. The 414 outdoor driveway parking spaces would be spread throughout the site. The property



line of the nearest sensitive receptors (residences to the east) is located approximately 100 feet west of the closest driveway parking spaces. At this distance, parking noise levels would range between 47 dBA and 55 dBA. Based on Redlands Municipal Code Section 8.06.070, exterior noise which exceeds 70 dBA (daytime) or 60 dBA (nighttime) for a cumulative period of more than five minutes in any hour would exceed the City's noise standard. As parking noise is temporary and short in duration, it is not anticipated that parking lot activities depicted in **Table 10** would exceed five minutes in duration. Therefore, parking lot noise would not exceed the City's 70 dBA (daytime) and 60 dBA (nighttime) noise standard for stationary sources. A less than significant impact would occur this regard.

**Table 10: Maximum Noise Levels Generated by Parking Lots**

Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	61 dBA $L_{eq}$
Car starting	60 dBA $L_{eq}$
Car idling	53 dBA $L_{eq}$

Notes: dBA = A-weighted Decibels;  $L_{eq}$  = Equivalent Sound Level

Source: Kariel, H. G., Noise in Rural Recreational Environments, Canadian Acoustics 19(5), 3-10, 1991.

## Mitigation Measures

**NOI-1** Prior to Grading Permit issuance, the project applicant shall demonstrate, to the satisfaction of the City of Redlands Land Use Services Department - Planning Division, that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property owners and occupants located within 200 feet of the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet, shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Redlands Community Development Director (or designee), prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- The Contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24 hours of the complaint, determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.), and implement reasonable measures to resolve the complaint, as



deemed acceptable by the City of Redlands Community Development Director (or designee). All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number of the Noise Disturbance Coordinator.

- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities shall only take place during the allowable hours specified by the Redlands Municipal Code Section 8.06.120 (from 7:00 a.m. to 6:00 p.m. on weekdays, with no construction activities permitted on Sundays or Federal holidays).

***b) Would the project result in 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 construction equipment. 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.

Construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, buildings that are constructed with typical timber frames and masonry show that a vibration level of up to 0.2 inch-per-second PPV is considered safe and would not result in any construction vibration damage. This evaluation uses the Federal Transit Administration (FTA) architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 inch-per-second PPV and human annoyance criterion of 0.1 inch-per-second PPV in accordance with California Department of Transportation guidance. The FTA has published standard vibration velocities for construction equipment operations. Typical vibration produced by construction equipment is detailed in **Table 11, Typical Vibration Levels for Construction Equipment**.

Groundborne vibration decreases rapidly with distance. The nearest structure is located approximately 110 feet east of the of the proposed construction area (eastern portion of the site). As indicated in **Table 11**, vibration velocities from typical heavy construction equipment used during project





construction would range from 0.0003 (a small bulldozer) to 0.0228 (vibratory roller) inch-per-second PPV at 110 feet from the source of activity, which would not exceed the FTA's 0.2 inch-per-second PPV threshold. Further, construction vibration would not cause excessive human annoyance as the highest groundborne vibration nearest sensitive receptors (i.e., 0.0228 inch-per-second PPV) would not exceed the 0.1 inch-per-second PPV human annoyance criteria. Therefore, proposed construction activities associated with the project would not expose sensitive receptors to excessive groundborne vibration levels. Vibration impacts associated with construction would be less than significant and no mitigation measures are required.

**Table 11: Typical Vibration Levels for Construction Equipment**

Equipment	Approximate peak particle velocity at 25 feet (inches/second) <sup>1</sup>	Approximate peak particle velocity at 110 feet (inches/second) <sup>1</sup>
Large bulldozer	0.0890	0.0096
Loaded trucks	0.0760	0.0082
Small bulldozer	0.0030	0.0003
Vibratory roller	0.2100	0.0228

Notes:

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 *Transit Noise and Vibration Impact Assessment Manual*

D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? No Impact.**

The closest airport to the project site is the Redlands Municipal Airport, located approximately 2.5 miles to the northeast of the site. The site is not within the Redlands Municipal Airport influence area where aircraft noise levels are a concern. As a result, implementation of the project would not expose people residing or working in the project area to excessive noise levels from public airport activity. Therefore, implementation of the project would not expose persons residing or working in the project vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for the proposed land use development, and no impact would occur.



## XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>POPULATION AND HOUSING:</b>				
<i>Would the project:</i>				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

**a) *Would the project 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)? No Impact.***

The project would require a temporary construction workforce which could induce population growth in the project area. The temporary workforce would be needed to construct the residential units and associated improvements to allow for water, sewer, and stormwater as well as public sidewalks, curb and gutter, and landscaping. Current data provided by the California Employment Development Department (EDD) found that the unemployment rate for the City of Redlands is at 2.7 percent, or 1,000 people.<sup>18</sup> As such, the project's temporary employment requirements could be met by the City of Redlands' existing labor force without people needing to relocate into the project region. Because of the nature of the project, workers who are already present in the local labor force typically fill the kinds of labor skills required for the project.

Based on the most recent American Community Survey data for Redlands for the average household size of 2.84 persons per household, the project would create housing for 588 residents. The 2018 Annual Element Progress Report of the Housing Element of the 2035 General Plan identifies a need

<sup>18</sup> California Employment Development Department website: <https://www.labormarketinfo.edd.ca.gov/> accessed 11-21-19.



for an additional 2,093 housing units in the City.<sup>19</sup> This project proposes to construct 207 housing units on the site. Therefore, the project as proposed is consistent with the anticipated population growth of the General Plan and is consistent with the Housing Element of the General Plan. Therefore, impacts associated with growth inducement would not occur.

**b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? No Impact.**

The project site is currently vacant and would not result in the displacement of any housing. As such, the project would not displace a substantial number of people, nor would it necessitate the construction of housing elsewhere. No impact would occur as a result of the project.

## XV. Public Services

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>PUBLIC SERVICES:</b>				
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:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

<sup>19</sup> City of Redlands Annual Element Progress Report of the Housing Element: [https://www.cityofredlands.org/sites/main/files/file-attachments/2018\\_-\\_annual\\_housing\\_element\\_progress\\_report.pdf?1571774299](https://www.cityofredlands.org/sites/main/files/file-attachments/2018_-_annual_housing_element_progress_report.pdf?1571774299) accessed 11-21-19.



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## Discussion

**a)i) *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 fire protection? Less Than Significant Impact.***

The project would be served by the Redlands Fire Department. There are four fire stations within the City. Redlands Fire Station No. 263 is the closest fire station to the project site, located approximately one mile east of the site at 10 W. Pennsylvania Avenue. The Redlands Fire Department can reach most of the city within a four-minute response time.<sup>20</sup>

Development of the project would result in an increased demand for fire protection services. However, the project would be conditioned by the City to provide a minimum of fire safety and support fire suppression activities, including compliance with State and local fire codes, fire sprinklers, a fire hydrant system paved access, and secondary access routes. Therefore, the project would not result in substantial adverse physical impacts associated with fire protection services, and a less than significant impact would occur.

**a)ii) *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 police protection? Less Than Significant Impact.***

The project would be served by the Redlands Police Department. There are four police stations within the City. The closest police station to the project site is located approximately one mile south of the site at 1270 W. Park Avenue. The Redlands Police Department has an average response time of 6.5 minutes and a service ratio of 1.1 officers per 1,000 residents.<sup>21</sup>

Development of the project would result in an increased demand for police protection services. To offset the increased demand, the project is subject to payment of development impact fees, as set forth in the General Plan's "Principles of Managed Development,"<sup>22</sup> and in the City's resolution establishing development impact fees, Resolution No. 7951, adopted April 2, 2019.<sup>23</sup> Resolution No. 7951 specifies costs for various governmental facilities, including Open Space and Parks Fee, Library Fee, Storm Drain Facilities Fee, Public Facilities Fee, Fire Protection Facilities Fee, Police Facilities Fee, Transportation System Improvement Fee, Sewer Capital Improvement Fee, Water Capital Improvement Fee, Solid Waste Capital Improvement Fee, and Acquisition of Water Stocks and Water Rights Fee. Payment of the development impact fees per Resolution No. 7951 would ensure that the

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<sup>20</sup> City of Redlands General Plan 2035, p. 4-44.

<sup>21</sup> City of Redlands General Plan 2035, p. 4-44.

<sup>22</sup> City of Redlands General Plan 2035, p. 4-4.

<sup>23</sup> City of Redlands Resolution No. 7951, <https://cityofredlands.org/sites/main/files/file-attachments/7951.pdf> accessed 11-21-19.



project provides its fair share of funds for the construction of any new police facilities/equipment, and a less than significant impact would occur.

***a)iii) 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 schools? Less Than Significant Impact.***

The project would be served by public schools within the Redlands Unified School District (RUSD). There are currently 17 elementary schools, 5 middle schools, and 6 high schools within the RUSD. Lugonia School is the closest elementary school to the project site, located 1.5 miles southeast of the site. Clement School is the closest middle school to the project site, located 1.5 miles southeast of the site. Citrus Valley High School is the closest high school to the project site, located immediately adjacent to the north of the site.

The project would increase the population in the local area and would consequently place greater demand on the existing public school system by generating additional students to be served by the RUSD. RUSD has accounted for the generation of its student population through its facilities planning activities and does not anticipate future growth in its service boundaries to exceed existing or planned school capacities. Furthermore, the project would be required to pay development impact fees to RUSD in accordance with Senate Bill (SB) 50, the Leroy F. Greene School Facilities Act of 1998. Therefore, impacts would be less than significant.

***a)iv) 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 parks? Less Than Significant Impact.***

There are currently 18 established parks, which comprise over 253 acres of land, within the City. Texonia Park, located at 1413 Texas Street, is located 0.4-mile south of the project site, and may serve the residents of the project, once completed. Similar to **Impact XV.a)ii)** above, the project is subject to the provisions of Resolution No. 7951 that specifies costs for various governmental facilities. Therefore, payment of such development impact fees would reduce the potential impacts associated with substantial adverse physical impacts associated with the provision of new parks to a less than significant level.

***a)v) 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 other public facilities? Less Than Significant Impact.***





As discussed above, the project is not anticipated to result in substantial physical impacts associated with the provision of new governmental facilities since the project is subject to the payment of development impact fees in accordance with Resolution No. 7951. In addition, the project would not generate a substantial new local population, either directly or indirectly, with the addition of 588 residents. Therefore, a less than significant impact to other public facilities is anticipated with the project.

## XVI. Recreation

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>RECREATION:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

- 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.***

Because the project would construct new homes and it is anticipated that residents would utilize nearby parks and recreational facilities, project development would likely increase the use of existing parks and recreational facilities. Texonia Park is the nearest park to the project site (0.4-mile to the south) and a 10.7-acre neighborhood park with a lighted soccer field, basketball courts, picnic and playground facilities.<sup>24</sup> The payment of development impact fees would ensure that the project provides its fair share of funds for parks, per Resolution No. 7951 regarding funding for public facilities improvements, to offset the incremental increase in existing recreational facility use that

<sup>24</sup> City of Redlands website, <https://www.cityofredlands.org/post/texonia-park> accessed 11-21-19.



would be created by the project. Therefore, project implementation would not result in substantial physical deterioration of recreational facilities and a less than significant impact would occur.

**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.**

To offset the increased use of existing recreational facilities, the project proposes to create seven recreational facilities onsite including parks and walkways, which would reduce potential impacts relative to the increased use of recreational facilities in the project area. The construction of the project's proposed recreational facilities would occur in compliance with City standards for parks and recreational facilities, specifically, Redlands Municipal Code Title 12, "Streets, Sidewalks and Public Places." Therefore, it is not anticipated that construction of the project's proposed recreational facilities would have a significant adverse physical effect on the environment. A less than significant impact would occur.

## XVII. Transportation and Traffic

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

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

The analysis in this section is based on the *Pioneer & Texas Residential Traffic Impact Analysis (TLA)* prepared by Urban Crossroads on February 20, 2020 (Revised), included as Appendix H1 in this IS/MND. Michael Baker International performed a review of the TLA on July 19, 2019 and provided



a memorandum to the City of Redlands noting areas where additional information could be provided; refer to Appendix H2 in this IS/MND. The findings of the *TLA* are incorporated herein by reference.

## Discussion

- a) *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities? Less Than Significant Impact With Mitigation Incorporated.***

## Study Area

The following 8 study area intersections and the jurisdictions for each were selected based on consultation with City of Redlands staff. Of these eight intersections, the existing study area circulation network includes six intersections; two intersections in the study area are future planned intersections that do not currently exist (Project driveways). **Figure 6, Existing Number of Through Lanes and Intersection Controls**, illustrates the study area intersections located near the proposed project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

The “50 peak hour trip” criterion utilized by the City is consistent with the methodology employed by the County of San Bernardino, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal.

It should be noted that the project is located in the vicinity of Citrus Valley High School. As such, in order to account for unique traffic patterns adjacent to the schools, additional intersections were included in the traffic study area based on discussions with City staff, although the project is anticipated to contribute less than 50 peak hour trips to those additional intersections.

- 1) SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue (Caltrans)
- 2) SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue (Caltrans)
- 3) Tennessee Street/San Bernardino Avenue (Redlands)
- 4) Driveway 1/San Bernardino Avenue – Future Intersection (Redlands)
- 5) Texas Street/Pioneer Avenue (Redlands)
- 6) Texas Street/Driveway 2 – Future Intersection (Redlands)
- 7) Texas Street/San Bernardino Avenue (Redlands)
- 8) Texas Street/Lugonia Avenue (Redlands)

## LOS Criteria and Thresholds of Significance

### City of Redlands

The City has established specific performance criteria for intersection operations. These performance criteria include standards related to determining the significance of project impacts on the roadway system. The City has established LOS C as the minimum level of service for its intersections, pursuant to General Plan Policy 5.20a. General Plan Policy 5.20b emphasizes maintain LOS C or better;



however, a reduced LOS may be accepted on a case-by-case basis upon approval by a four-fifths (4/5ths) vote of the total authorized membership of the City Council.

In accordance with these policies, any intersection operating at LOS D or worse will be considered deficient for the purposes of this analysis. Additionally, General Plan Policy 5.20c states that, “Where the current level of service at a location within the City of Redlands is below the Level of Service (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 that location (i.e. intersections in Redlands that are deficient to start out with are acceptable as long as they do not further degrade LOS).”

Consistent with recent City traffic studies, the following thresholds of significance will be utilized to determine whether the addition of Project traffic at a study intersection results in a significant impact:

- A significant impact occurs at a study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection to change from acceptable operation (e.g., LOS A, B or C) to deficient operation (e.g., LOS D, E or F) and, if applicable, also causes an unsignalized intersection to satisfy a Caltrans traffic signal warrant; or
- A significant impact occurs at a study intersection if the addition of project-generated trips worsens the pre-project level of service grade at a deficiently operating (e.g., LOS D, E or F) intersection and, if applicable, also causes an unsignalized intersection to satisfy a Caltrans traffic signal warrant; or
- A significant impact occurs at a study intersection if the addition of project-generated trips changes the delay by the values shown in **Table 12** below and, if applicable, also causes an unsignalized intersection to satisfy a Caltrans traffic signal warrant.

**Table 12: City of Redlands Intersection Thresholds of Significance**

Pre-Project LOS	Project-Related Delay Increase	Mitigation Measure
C	8 seconds or more	Payment into City Traffic Fee Program
D	5 seconds or more	Achieve Pre-project delay or better
E	4 seconds or more	Achieve Pre-project delay or better
F	3 seconds or more	Achieve Pre-project delay or better

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020

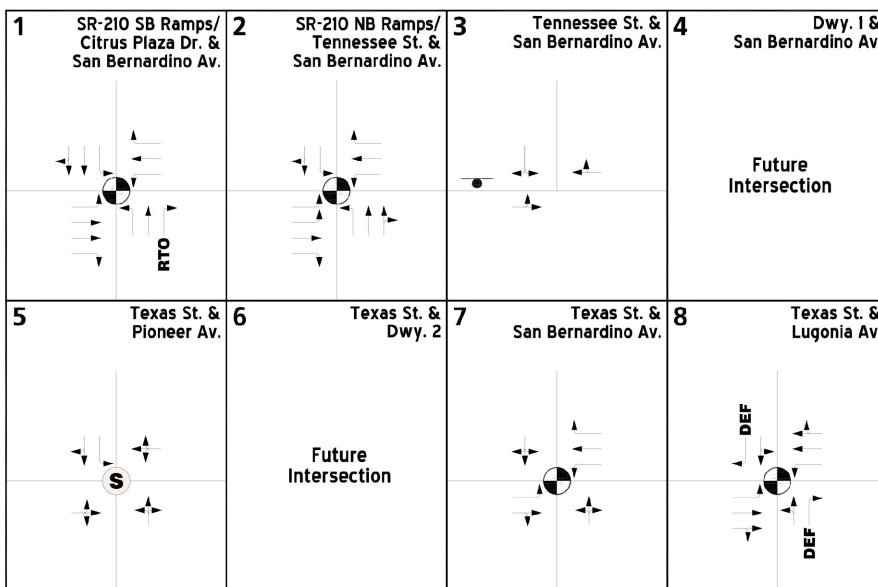


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11/22/2019 JN M:\data\173796\GIS\MXD\06 Existing Number of Through Lanes and Intersection Controls.mxd



### LEGEND:

- = TRAFFIC SIGNAL
- = ALL WAY STOP
- = STOP SIGN
- 4** = NUMBER OF LANES
- D** = DIVIDED
- U** = UNDIVIDED
- RTO** = RIGHT TURN OVERLAP
- DEF** = DEFACTO RIGHT TURN
- = SPEED LIMIT (MPH)

HERITAGE SPECIFIC PLAN  
IS/MND

Existing Number of Through  
Lanes and Intersection Controls

Figure 6





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### Caltrans

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on state highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D.

It should be noted that Caltrans does not have a threshold of significance for their facilities. As such, the same thresholds defined above have also been applied to the SR-210 freeway ramps at San Bernardino Avenue.

### Analysis Scenarios

Potential impacts to traffic and circulation associated with project implementation have been assessed for each of the following conditions:

- Existing (1 scenario)
- Existing plus Project (1 scenario)
- Opening Year Cumulative (2024), Without and With Project (2 scenarios)
- Horizon Year (2040), Without and With Project (2 scenarios)

### Existing Conditions

This section provides a summary of the existing circulation network, the City of Redlands General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrants. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the City in the vicinity of the proposed project, as identified on the City's General Plan Circulation Element or in the East Valley Corridor Specific Plan, are described below.

### Roadways

***Texas Street*** is a two-lane undivided roadway in the study area. Texas Street is designated as a Collector north of Pioneer Avenue and as a Minor Arterial south of Pioneer Avenue on the City of Redlands General Plan. The roadway cross-section for a Secondary Highway consists of two travel lanes in each direction and 8-foot shoulders.

***Pioneer Avenue*** is a two-lane undivided roadway west of Texas Street and a two-lane undivided roadway east of Texas Street, with curb and gutter improvements in place along the north side of the road between Tennessee Street and Texas Street. Consistent with the East Valley Corridor Specific Plan, Pioneer Avenue is designated as a Collector (66-foot right-of-way) between Alabama Street and Texas Street. Pioneer Avenue is designated as a collector on the City of Redlands General Plan.



**Tennessee Street** is a two-lane undivided roadway north of Lugonia Avenue and widens to a four-lane undivided roadway south of Lugonia Avenue. There are no curb and gutter improvements north of Lugonia Avenue and only on the right side of the street between Lugonia Avenue and Colton Avenue. South of Colton Avenue, both sides of the street have curb and gutter improvements. Tennessee Street is designated as a Minor Arterial (88-foot right-of-way) on the City of Redlands General Plan, with two travel lanes in each direction and 8-foot shoulders.

**San Bernardino Avenue**, west of Orange Street, is designated as a major arterial (6 lanes; 120-foot right-of-way) in the East Valley Corridor Specific Plan. The roadway cross-section for a major arterial consists of three travel lanes in each direction. San Bernardino Avenue is designated as a major arterial (132-foot right-of-way) between Texas Street and Orange Street with three travel lanes in each direction, and as a minor arterial (88-foot right-of-way) east of Orange Street with two lanes in each direction on the City of Redlands General Plan.

**Lugonia Avenue**, west of Karon Street, is designated as a major highway (4 lanes; 104-foot right-of-way) in the East Valley Corridor Specific Plan. The roadway cross-section for a major highway consists of two travel lanes in each direction with a continuous two-way left-turn lane.

#### Bicycle/Pedestrian Facilities and Transit

There are existing sidewalks located along Pioneer Avenue and Texas Street in the vicinity of the project site. There are no existing bike lanes on any of the above-references project area roadways, although future bike lanes are proposed for all of the project area roadways.

The study area is currently served by Omnitrans, a public transit agency serving the County of San Bernardino and the City of Redlands, with bus service in the study area along San Bernardino Avenue and Lugonia Avenue via Route 15.

#### Existing Traffic Counts

Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area were based upon factored intersection peak hour counts collected by Counts Unlimited (a contractor to Urban Crossroads, Inc.) using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.13 = Leg Volume

The intersection level of service (LOS) analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in November 2018. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)
- Weekday Mid-day Peak Hour (peak hour between 2:00 PM and 4:00 PM)



The weekday AM, weekday Mid-day, and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. Pursuant to discussions with City staff, all the study area intersections were evaluated during the weekday mid-day peak hour to determine the operational effects of the near-by elementary school to these study area intersections.

The traffic counts collected in November 2018 for the Caltrans ramp-to-arterial facilities include the vehicle classifications as shown below. To represent the impact large trucks, buses and recreational vehicles have on traffic flow at Caltrans intersections; all trucks were converted into Passenger Car Equivalents (PCEs).

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1 of the TIA. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic (e.g., between ramp-to-arterial intersections, etc.). Refer to Appendix 3.1 of the TIA.

#### Existing Intersection Operations Analysis

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 of the TIA. The intersection operations analysis results are summarized in **Table 13**, which indicates that the following existing study area intersection is currently operating at an unacceptable LOS during the peak hours:

- Tennessee Street/San Bernardino Avenue (#3) – LOS F AM and mid-day peak hours

#### **Projected Future Traffic**

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. It should be noted that although the use of public transit, walking, and/or bicycling have the potential to reduce project-related traffic, such reductions have not been taken into consideration for this project in order to provide a conservative analysis of the project's potential to result in significant traffic impacts.

The trip generation rates utilized for the purposes of this analysis are based upon data collected by the Institute of Transportation Engineers (ITE) and presented in ITE's most recent edition of *Trip Generation*, (10th Edition, 2017). Based upon the Single Family Detached Residential rate (ITE land use Code 210), the project is anticipated to generate a net total of approximately 1,956 trip-ends per day with 153 AM peak hour trips and 205 PM peak hour trips.





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Table 13: Intersection Analysis for Existing (2018) Conditions

#	Intersection	Traffic Control <sup>3</sup>	Intersection Approach Lanes <sup>1</sup>				Delay (seconds) <sup>2</sup>			Level of Service			Acceptable LOS										
			Northbound		Southbound									Eastbound		Westbound							
			L	T	R	L	T	R	L	T	R	L		T	R	AM	MD	PM	AM	MD	PM		
1	SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue	TS	1	1	1>	1	2	0	1	2	1	1	1	1	1	1	36.4	35.0	37.7	D	C	D	D
2	SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue	TS	1	2	0	1	1	0	2	1	1	1	1	1	1	1	29.2	42.3	49.4	C	D	D	D
3	Tennessee Street/San Bernardino Avenue	CSS	0	0	0	0	1	0	0	1	0	0	1	0	0	1	49.6	122.1	15.9	E	F	C	C
4	Driveway 1/San Bernardino Avenue	Future Intersection												C									
5	Texas Street/Pioneer Avenue	TS	1	1	0	1	1	1	0	1	0	0	1	0	0	1	127.8	210.6	25.3	F	F	D	C
6	Texas Street/Driveway 2	Future Intersection												C									
7	Texas Street/San Bernardino Avenue	TS	0	1	0	0	1	0	1	1	0	1	1	1	1	1	12.8	12.8	22.3	B	B	C	C
8	Texas Street/Lugonia Avenue	TS	0	1	d	0	1	d	1	2	0	1	2	0	1	1	20.5	27.2	27.7	C	C	C	C

\* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 = When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

2 = Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

3 = CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020 (Revised)



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### **Existing Plus Project (E + P) Traffic Analysis**

This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations and traffic signal warrants. The lane configurations and traffic controls assumed to be in place for E+P traffic conditions are consistent with those shown previously on **Figure 6, Existing Number of Through Lanes and Intersection Controls**, with the exception of the following:

- Driveways proposed to be developed by the project are assumed.

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.0 *Methodologies* of the TIA. The intersection analysis results are summarized in **Table 14** below, which indicates that there are no additional study area intersections that are anticipated to operate at acceptable levels of service, in addition of the intersections previously identified under Existing (2018) traffic conditions.

Based on the City of Redlands' significance criteria as discussed above, the addition of project traffic is forecasted for result in a significant impact at the following intersections, and mitigation has been provided in the "Mitigation Measures" discussion below to reduce impacts to a less than significant level:

- Tennessee Street/San Bernardino Avenue (#3)

### **Traffic Signal Warrants Analysis**

Traffic signal warrants for E+P traffic conditions are based on E+P ADT volumes. No future unsignalized intersections appear to warrant a traffic signal under E+P conditions in addition to those already warranted under Existing (2018) conditions.

### **Opening Year Cumulative (2024) Traffic Analysis**

This section discusses the traffic forecasts for Opening Year Cumulative (2024) Without and With Project conditions and the resulting intersection operations and traffic signal warrants. The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2024) Without and With Project conditions are consistent with those shown previously on **Figure 6, Existing Number of Through Lanes and Intersection Controls**, with the exception of the following:

- Driveways proposed to be developed by the Project and cumulative developments are assumed.

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2024) Without Project conditions with roadway and intersection geometrics consistent with Existing conditions. As shown on **Table 15** below, the study area intersections are anticipated to operate at acceptable levels of service under Opening Year Cumulative (2024) Without Project conditions, with the exception of the following intersections:



- 
- SR-210 SB Ramps/Citrus Plaza Drive/San Bernardino Avenue (#1) – LOS E AM peak hour; LOS F mid-day and PM peak hours
  - SR-210 NB Ramps/Tennessee Street/San Bernardino Avenue (#2) – LOS D AM peak hour; LOS F mid-day and PM peak hours
  - Tennessee Street/San Bernardino Avenue (#3) – LOS F AM, mid-day, and PM peak hours
  - Texas Street/Pioneer Avenue (#5) – LOS D mid-day peak hour only
  - Texas Street/San Bernardino Avenue (#7) – LOS D AM peak hour; LOS F mid-day and PM peak hours
  - Texas Street/Lugonia Avenue (#8) – LOS D AM peak hour; LOS E mid-day peak hour; LOS F PM peak hour

As shown on **Table 15**, the addition of project traffic is not anticipated to result in any additional intersections to operate at an unacceptable LOS as compared to those identified previously for Opening Year Cumulative (2024) Without Project traffic conditions.

Based on the City of Redlands' significance criteria as discussed above, the addition of project traffic is forecasted for result in a significant cumulative impact at the following intersections, and mitigation has been provided in the "Mitigation Measures" discussion below to reduce impacts to a less than significant level:

- SR-210 SB Ramps/Citrus Plaza Drive/San Bernardino Avenue (#1)
- SR-210 NB Ramps/Tennessee Street/San Bernardino Av. (#2)
- Tennessee Street/San Bernardino Avenue (#3)
- Texas Street/San Bernardino Avenue (#7)
- Texas Street/Lugonia Avenue (#8)





Table 14: Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control <sup>2</sup>	Existing (2018)						E+P						Change in Delay (seconds)			Acceptable LOS	Significant Impact?
			Delay <sup>1</sup> (seconds)			LOS			Delay <sup>1</sup> (seconds)			LOS							
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM		
1	SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue	TS	36.4	35	37.7	D	C	D	37.2	35.4	38.3	D	D	D	0.8	0.4	0.6	D	No
2	SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue	TS	29.2	42.3	49.4	C	D	D	29.7	46.6	53.6	C	D	D	0.5	4.3	4.2	D	No
3	Tennessee Street/San Bernardino Avenue	<u>CSS</u>	49.6	122.1	15.9	E	F	C	68.8	206.1	17.5	F	F	C	19.2	84	1.6	C	Yes
4	Driveway 1/San Bernardino Avenue	<u>CSS</u>	Future Intersection						18.8	13	12.6	C	B	B	--	--	--	C	No
5	Texas Street/Pioneer Avenue	AWS/ <u>TS</u>	127.8	210.6	25.3	F	F	D	19.7	20.7	14.5	B	C	B	--	--	--	C	No
6	Texas Street/ Driveway 2	<u>CSS</u>	Future Intersection						10.9	10.4	9.9	B	B	A	--	--	--	C	No
7	Texas Street/San Bernardino Avenue	TS	12.8	12.8	22.3	B	B	C	14.5	14	28.1	B	B	C	1.7	1.2	5.8	C	No
8	Texas Street/Lugonia Avenue	TS	20.5	27.2	27.7	C	C	C	21.3	28	30	C	C	C	0.8	0.8	2.3	C	No

\* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 = Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 = CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020



Table 15: Intersection Analysis for Opening Year Cumulative (2024) Conditions

#	Intersection	Traffic Control <sup>2</sup>	Opening Year (2024) Without Project						Opening Year (2024) + Project						Change in Delay (seconds)			Acceptable LOS	Significant Impact?
			Delay <sup>1</sup> (seconds)			LOS			Delay <sup>1</sup> (seconds)			LOS							
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM		
1	SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue	TS	73.6	88	118.4	E	F	F	76.4	94.6	124.9	E	F	F	1.4	4.3	3.6	D	Yes
2	SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue	TS	54.6	216.9	195.4	D	F	F	61	234.5	123.1	E	F	F	2.8	15.5	16.2	D	Yes
3	Tennessee Street/San Bernardino Avenue <sup>3</sup>	CSS	>100	>100	>100	F	F	F	>100	>100	>100	F	F	F	>3	>3	>3	C	Yes
4	Driveway 1/San Bernardino Avenue	<u>CSS</u>	Future Intersection						14.7	13.4	11.6	B	B	B	--	--	--	C	No
5	Texas Street/Pioneer Avenue <sup>3</sup>	<u>TS</u>	22	40	20.2	C	D	C	23.5	42	20.4	C	D	C	-0.4	-23.5	-3.7	C	No
6	Texas Street/ Driveway 2	<u>CSS</u>	Future Intersection						11.1	12	10.3	B	B	B	--	--	--	C	No
7	Texas Street/San Bernardino Avenue	TS	40.5	95.5	90.8	D	E	F	43.2	108.5	111.5	D	F	F	1.8	21.3	18.9	C	Yes
8	Texas Street/Lugonia Avenue	TS	46.4	73.0	121.8	D	E	F	50.2	76.8	128.8	D	E	F	3.8	3.8	7.0	C	Yes

\* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 = Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 = CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

3 = The Project is anticipated to construct an EB right turn lane. As such, the improvement has been assumed for the With Project scenario.

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020



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### Traffic Signal Warrants Analysis

Traffic signal warrants for Opening Year Cumulative (2024) traffic conditions are based on Opening Year Cumulative (2024) Without and With Project ADT volumes. For Opening Year Cumulative (2024) traffic conditions, no additional intersections appear to warrant a traffic signal than those previously warranted under Existing (2018) conditions.

### **Horizon Year (2040) Traffic Analysis**

This section discusses the traffic forecasts for Horizon Year (2040) Without and With Project conditions and the resulting intersection operations and traffic signal warrants. The lane configurations and traffic controls assumed to be in place for Horizon Year (2040) Without and With Project conditions are consistent with those shown previously on **Figure 6, Existing Number of Through Lanes and Intersection Controls**, with the exception of the following:

- Driveways proposed to be developed by the project and cumulative developments are assumed

LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2040) Without Project conditions with roadway and intersection geometrics consistent with Existing conditions. As shown on **Table 16** below, there are no additional study area intersections that are anticipated to operate at acceptable levels of service under Horizon Year (2040) Without Project conditions, in addition to the intersections previously identified under Opening Year Cumulative (2024) traffic conditions.

As shown on **Table 16**, the addition of project traffic is not anticipated to result in any additional intersections to operate at an unacceptable LOS as compared to those identified previously for Horizon Year (2040) Without Project traffic conditions.

Based on the City of Redlands' significance criteria as discussed above, the addition of project traffic is forecasted for result in a significant cumulative impact at the following intersections, and mitigation has been provided in the "Mitigation Measures" discussion below to reduce impacts to a less than significant level:

- SR-210 SB Ramps/Citrus Plaza Drive/San Bernardino Avenue (#1)
- SR-210 NB Ramps/Tennessee Street/San Bernardino Avenue (#2)
- Tennessee Street/San Bernardino Avenue (#3)
- Texas Street/Pioneer Avenue (#5)
- Texas Street/San Bernardino Avenue (#7)
- Texas Street/Lugonia Avenue (#8)



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### Traffic Signal Warrants Analysis

Traffic signal warrants for Horizon Year (2040) traffic conditions are based on Horizon Year (2040) Without and With Project volumes. For Horizon Year (2040) Without Project traffic conditions, the intersection of Texas Street/Pioneer Avenue appears to warrant a traffic signal. With the addition of project traffic, no study area intersections appear to warrant a traffic signal.

### Conclusion

The cumulatively impacted study area intersections have been identified in the preceding discussion. Cumulative impacts are deficiencies that would not be directly caused by the project. The project would, however, contribute traffic to these deficient facilities along with other cumulative development projects, resulting in a cumulatively considerable impact. As such, improvement strategies have been recommended at intersections that have been identified as significantly impacted by the project, in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). Significant impacts have been identified at deficient intersections if the project contributes 50 or more peak hours.

To reduce significant traffic impacts, the project would be required to pay fair share fees towards future roadway improvements identified by the City. In cases where the project TIA identifies that the project would have a significant cumulative impact to a study area intersection, and the recommended mitigation measure is a fair share monetary contribution, the following methodology is applied to determine the fair share contribution. A project's fair share contribution at an off-site study area intersection is determined based on the following equation, which is the ratio of project traffic to total traffic, where total traffic is the total Horizon Year (2040) future traffic:

- $\text{Project Fair Share \%} = \text{Project Traffic} / \text{Total New Traffic}$

The effectiveness of the recommended roadway improvements to address traffic deficiencies for each of the study scenarios is presented in **Table 17** below. With implementation of these mitigation measures, project-related traffic impacts would be reduced to a less than significant level.



Table 16: Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control <sup>2</sup>	Horizon Year (2040) Without Project						Horizon Year (2040) With Project						Change in Delay (seconds)			Acceptable LOS	Significant Impact?
			Delay <sup>1</sup> (seconds)			LOS			Delay <sup>1</sup> (seconds)			LOS							
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM		
1	SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue	TS	102.5	139.8	163.5	F	F	F	105.8	147.5	170	F	F	F	3.3	7.7	6.5	D	Yes
2	SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue	TS	114.8	357.8	342.1	F	F	F	122.3	375.3	365	F	F	F	7.5	17.5	22.9	D	Yes
3	Tennessee Street/San Bernardino Avenue	CSS	>100	>100	>100	F	F	F	>100	>100	>100	F	F	F	>3.0	>3.0	>3.0	C	Yes
4	Driveway 1/San Bernardino Avenue	<u>CSS</u>	Future Intersection						18.7	16.5	14.3	C	C	B	--	--	--	C	No
5	Texas Street/Pioneer Avenue <sup>3</sup>	<u>TS</u>	30.3	175.5	47.4	C	F	D	35.2	200.5	59.2	D	F	E	4.9	25	11.8	C	Yes
6	Texas Street/ Driveway 2	<u>CSS</u>	Future Intersection						12	16.4	11.9	B	C	B	--	--	--	C	No
7	Texas Street/San Bernardino Avenue	TS	105.8	269.5	236.8	F	F	F	106	618.5	250.5	F	F	F	0.2	349	13.7	C	Yes
8	Texas Street/Lugonia Avenue	TS	66.4	141.5	220.7	E	F	F	72.6	150.8	231.6	E	F	F	6.2	9.3	10.9	C	Yes

\* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 = Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 = CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

3 = The Project is anticipated to construct an EB right turn lane. As such, the improvement has been assumed for the With Project scenario.

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020





Table 17: Intersection Analysis for All Study Scenarios Without and With Improvements

#	Intersection	Traffic Control	Intersection Approach Lanes				Delay (seconds)			Level of Service										
			Northbound			Southbound			Eastbound			Westbound			AM	MD	PM			
			L	T	R	L	T	R	L	T	R	L	T	R						
Horizon Year (2040) Conditions																				
1	SR-210 SB Ramps/Citrus Plaza Drive & San Bernardino Avenue																			
	-Without Improvements	TS	1	1	1>	1	2	0	1	2	1	1	1	1	105.8	147.5	170.0	E	F	F
	-With Improvements	TS	1	1	1>	2	2	1	1	3	1	1	3	1	38.4	48.9	51.1	D	D	D
2	SR-210 NB Ramps/Tennessee Street & San Bernardino Avenue																			
	-Without Improvements	TS	1	2	0	1	1	0	2	1	1	1	1	1	86.7	269.3	271.9	F	F	F
	-With Improvements	TS	1	2	0	2	2	0	2	3	1	1	3	2	36.8	41.4	51.4	D	D	D
3	Tennessee Street/San Bernardino Avenue																			
	-Without Improvements	CSS	1	1	0	1	1	1	0	1	1	1	1	1	>100	>100	>100	F	F	F
	-With Improvements <sup>4</sup>	TS	2	1	0	1	0	1	1	3	0	0	3	0	31.2	22.4	32.3	C	C	C
5	Texas Street/Pioneer Avenue																			
	-Without Improvements	TS	1	1	0	1	2	0	1	1	1	0	1	0	27.7	106.9	46.0	C	F	D
	-With Improvements	TS	1	2	0	1	2	0	1	2	0	1	2	0	30.2	31.0	24.7	C	C	C
7	Texas Street/San Bernardino Avenue																			
	-Without Improvements	TS	0	1	0	0	1	0	1	1	0	1	1	1	108.4	475.6	227.4	F	F	F
	-With Improvements <sup>4</sup>	TS	1	2	0	1	1	1>	2	3	0	1	3	0	23.8	27.7	26.9	C	C	C
8	Texas Street/Lugonia Avenue																			
	-Without Improvements	TS	0	1	d	0	1	d	1	2	0	1	2	0	72.6	150.8	231.1	E	F	F
	-With Improvements	TS	1	1	d	0	1	d	1	2	0	1	2	0	19.3	17.9	20.0	B	B	C

\* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 = When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; 1 = Improvement

2 = Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst approach is shown.

3 = CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

4 = Intersection delay is anticipated to improve with the construction of New York Street along the project's western boundary.

Source: Urban Crossroads, Pioneer & Texas Residential Traffic Impact Analysis, February 20, 2020



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## Mitigation Measures

- TR-1** The intersection of Tennessee Street/San Bernardino Avenue (#3) is currently operating at an unacceptable LOS and is anticipated to continue to operate at an unacceptable LOS under future scenarios. The project shall stripe a southbound left and right turn lane in order to improve the traffic conditions to pre-project conditions or better.
- TR-2** Prior to the issuance of building permits, the project applicant shall participate in the City's Development Impact Fee (DIF) program by paying the requisite DIF fee at the time of building permit; and in addition, shall pay the project's fair share amount as agreed to by the City and project applicant.
- TR-3** The project applicant's fair-share amount for the intersections that either share a mutual border with Caltrans or are wholly located within Caltrans' jurisdiction that have recommended improvements for project buildout which are not covered by payment of fees equals \$4,155. The project applicant shall be required to pay this amount to the City of Redlands prior to the issuance of the project's final certificate of occupancy.

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

The study area is currently served by Omnitrans, a public transit agency serving the County of San Bernardino and the City of Redlands, with bus service in the study area along San Bernardino Avenue and Lugonia Avenue via Route 15. There are six existing bus stops within a 0.5-mile radius of the project site. Therefore, impacts related to vehicle miles traveled would be less than significant.

**c) *Would the project 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 is surrounded by public institutional uses (Citrus Valley High School) to the north, vacant land to the west, residential development to the south and east, and agricultural uses to the east, and 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.

**d) *Would the project result in inadequate emergency access? Less Than Significant Impact With Mitigation Incorporated.***



The project has multiple accesses to allow for emergency vehicles. The project is proposed to access San Bernardino Avenue via Driveway 1 and Texas Street via Driveway 2. Driveway 1 is proposed to have right-in/right-out/left-in only access and Driveway 2 is proposed to have full access. The project access designs (width, grade, slope, vertical clearance, gate type, gate width and gate entry feature) shall be provided to the City and/or Fire Authority for review and approval of adequate access. For emergency access roadways with a cross-section of less than 36 feet in width, the local Fire Authority should be consulted for minimum width and parking restrictions. 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.

Furthermore, a construction work site traffic control plan shall be submitted to the City for review and approval prior to the start of any construction work (Mitigation Measure TR-4). The plans shall show the location of any roadway, sidewalk, bike route, bus stop or driveway closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. Temporary traffic controls used around the construction area should adhere to the standards set forth in the California Manual of Uniform Traffic Control Devices (2014) and construction activities should adhere to applicable local ordinances. Consequently, on-site improvements and improvements adjacent to the site will be required in conjunction with the proposed development to ensure adequate circulation within the project. With the implementation of Mitigation Measure TR-4, impacts would be less than significant.

### **Mitigation Measures**

**TR-4** A construction work site traffic control plan shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of any construction work. The plans shall show the location of any roadway, sidewalk, bike route, bus stop or driveway closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. Temporary traffic controls used around the construction area should adhere to the standards set forth in the California Manual of Uniform Traffic Control Devices (2014) and construction activities should adhere to applicable local ordinances.

Site development would require the use of haul trucks during site clearing and excavation and the use of a variety of other construction vehicles throughout the construction work at the site. Transportation of heavy construction equipment and or materials, which requires the use of oversized vehicles, will require the appropriate transportation permit.



## XVIII. Tribal Cultural Resources

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

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

Analysis for this section is based on the the results of tribal consultation with Native American tribes as part of the SB 18 and AB 52 consultation process.

### Discussion

**a)i) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical**



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***Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Chapter 905, Statutes of 2004 (i.e., SB 18) and Chapter 905, Statutes of 2014 (i.e. AB5 52) requires Lead Agencies contact and consult with California Native American tribes prior to amending or adopting any specific plan, and evaluate a project's potential to impact "tribal cultural resources." Tribal outreach has been conducted by the lead agency for SB 18 and AB 52 consultation. The lead agency coordinated with the NAHC to receive a consultation list of tribes with traditional lands or cultural places located within the boundaries of San Bernardino County. The lead agency provided written notification to thirteen (13) tribes, in accordance with SB 18, on July 16, 2019, including the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Los Coyotes Band of Cahuilla and Cupeño Indians, Morongo Band of Mission Indians, Ramona Band of Cahuilla, San Fernando Band of Mission Indians, San Manuel Band of Mission Indians, Santa Rosa Band of Cahuilla Indians, Serrano Nation of Mission Indians, Soboba Band of Luiseno Indians, and the Torres-Martinez Desert Cahuilla Indians.

Additionally, AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining if a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. The lead agency is then required to notify the tribe within 14 days of deeming an application subject to CEQA complete to notify the requesting tribe of the opportunity to consult on the project. The lead agency provided written notification to five (5) tribes, in accordance with AB 52, on July 16, 2019, including the Morongo Band of Mission Indians, San Manuel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres-Martinez Desert Cahuilla Indians, and the Gabrieleno Band of Mission Indians- Kizh Nation.

Requests for consultation were received and conducted with the Morongo Band of Mission Indians, San Manuel Band of Mission Indians, Soboba Band of Luiseno Indians, in response to both AB52 and SB 18 notification, and the Augustine Band of Cahuilla Indians and Agua Caliente Band of Cahuilla Indians in response to SB 18 notification.

If tribal cultural resources are inadvertently discovered during construction, the project would have a less than significant impact on tribal cultural resources with incorporation of the following mitigation measures, which ensure proper identification of potential tribal cultural resources.

**Mitigation Measures**

**TCR-1** The Participating Tribe(s) shall be contacted and provided information, as detailed in CUL-1, for any archaeological cultural resources discovered during project implementation, and be given the opportunity to provide input regarding the significance and treatment of archaeological cultural resources. Should the archaeological cultural resources be determined significant, as defined by CEQA Section 15064.5(a), then CUL-1 and CUL-2 shall be followed. Additionally, if tribal cultural resources are inadvertently discovered during the course of ground disturbance, the following procedures shall be implemented for treatment and disposition of the discoveries:





- a. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the qualified archaeologist. The removal of any artifacts from the project site shall be thoroughly inventoried with a qualified archaeologist and Native American Tribal Monitor(s) oversight of the process.
- b. Treatment and Final Disposition: The land owner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, archaeological artifacts, and non-human remains discovered as part of the required mitigation for impacts to cultural resources. The land owner(s) shall relinquish the cultural resources through one or more of the following methods and provide the City of Redlands with evidence of same:
  - A. Accommodate the process for on-site reburial of the discovered items with the Participating Tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and recordation have been completed.
  - B. A curation agreement with an appropriate qualified repository within San Bernardino County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility.
  - C. In the event that more than one Native American tribe or band is involved with the proposed project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum by default, located at 2024 Orange Tree Lane in Redlands California.

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

CEQA defines a “historical resource” as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k);



(3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and State CEQA Guidelines §15064.5[a]).

A resource may be listed as a historical resource in the California Register if it meets any of the following National Register of Historic Places criteria as defined in PRC §5024.1(C):

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

A "substantial adverse change" to a historical resource, according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

As detailed above, consultation with Native American tribal representatives was conducted by the lead agency. If tribal cultural resources are inadvertently discovered during construction, proper identification and treatment is necessary to ensure a less than significant impact to tribal cultural resources. Therefore, with the implementation of Mitigation Measure TCR-1, impacts to tribal cultural resources determined significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1, with Native American input and participation, would be reduced to a less than significant level.



## XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>UTILITIES AND SERVICE SYSTEMS:</b>				
<i>Would the project:</i>				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

- a) ***Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? Less Than Significant Impact.***



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### Electrical and Natural Gas

Southern California Edison (SCE) would provide electricity to the proposed project. Currently, 12 kilovolt (KV) power lines exist along Texas Street, Pioneer Avenue and San Bernardino Avenue. In addition, a 66KV power line also runs along San Bernardino Avenue. Pursuant to the City of Redlands requirement to underground any power lines of 65KV or less, the project would underground all three of the 12KV power lines. The 66KV power line along San Bernardino Avenue would remain on poles. The project would connect to these service lines with the final configuration of these service lines to be approved by SCE. In addition, the entire project would comply with Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Code of Regulations) and any adopted City of Redlands energy conservation requirements.

The Gas Company would supply natural gas service to the proposed project. The project would connect to service lines with the final configuration to be approved by The Gas Company.

### Water

The City of Redlands MUED provides local water service in the City. There is currently an existing sixteen-inch potable water line in Pioneer Avenue, an eight-inch potable waterline in Texas Street, and a two-inch potable water line in San Bernardino Avenue. The City requires new residential uses to provide eight-inch potable water lines where appropriate. As such, the project would be responsible for replacement of the existing two-inch waterline in San Bernardino Avenue with a minimum eight-inch system or twelve-inch system with reimbursement from the City for increased pipe capacity not required by the project. The internal project would be serviced by an eight-inch looped water system with connection to the water main lines in San Bernardino Avenue and Texas Street.

There are existing non-potable waterlines in Pioneer Avenue, Texas Street and San Bernardino Avenue. If required by the City, these systems would be extended along the property frontage. The extensions may include eight-inch non-potable waterlines in both Pioneer Avenue and San Bernardino Avenue. In addition, an irrigation farming easement that connects the project site to an existing well traverses the center of the property from east to west. If necessary, the project would replace this line with a twelve-inch pipeline. The project would also be responsible for the installation and upgrading of fire hydrants around the perimeter of the property pursuant to the City of Redlands Fire Department requirements.

### Wastewater

The City of Redlands MUED provides sewer service. There currently exists a 21-inch sewer line in San Bernardino Avenue and an eight-inch line in Texas Street. The project would connect to the sewer line in San Bernardino Avenue with the final configuration to be approved by the City of Redlands MUED.

### Stormwater Drainage

Runoff from the project generally drains from east to west across the site in a sheet flow pattern and is diverted either north or south to adjacent streets by concrete irrigation channels that serviced the former site orchard. Pioneer Avenue and San Bernardino Avenue transmit runoff westerly to a trapezoidal concrete open channel running parallel to and along the east side of I-210. The channel,



which is in Caltrans right-of-way, was constructed with the freeway in 1984 and drains to Reach 5 of the Santa Ana River.

The City of Redlands Drainage Master Plan (DMP) prepared in 2014 and predecessor area drainage report Comprehensive Storm Drain Plan (CSDP) #4 updated by the County of San Bernardino in 2013 provide the planned hydrology for the watershed where the project is located. Both studies utilize current General Plan land use designations to determine run-off values for the areas being analyzed. For this project site, the future developed condition run-off values were based on a Commercial land use designation. Based on the lower density development type proposed for the project (less than 6 dwelling units per acre), the drainage runoff from the site would be less than the values determined in the DMP.

The City's DMP also provides recommended storm drain improvements for the different subwatersheds included in the study. This project is located within the North City subwatershed of the report that includes a recommendation for the installation of a storm drain system in San Bernardino Avenue extending from the I-210 channel to Texas Street along the project's southerly boundary. Although there are no current plans to construct this master planned facility, it is anticipated that adequate capacity would be provided in the storm drain system for the relatively small area of the project site that is proposed to drain to San Bernardino Avenue. The remainder of the project site is proposed to outlet in Pioneer Avenue along the northerly project limits.

Pioneer Avenue has a general plan street designation of 'Collector' and is anticipated to have adequate hydraulic capacity to convey run-off from the project site to the I-210 channel when fully widened. A detention basin is proposed at the project outlet onto Pioneer Avenue to mitigate increases in storm water runoff leaving the site. Drainage in Pioneer Avenue west of the project site travels along the southerly edge of the existing pavement in a shallow earthen channel that outlets into the I-210 channel. This drainage pattern would be maintained with the proposed development.

### Conclusion

As described above, the project would utilize existing electrical, natural gas, water and wastewater facilities, and stormwater drainage facilities, therefore not requiring construction of new facilities or the expansion of current facilities. Therefore, a less than significant impact would occur.

Connections to local water and sewer mains would involve temporary and less than significant construction impacts that would occur in conjunction with other onsite improvements. No additional improvements are needed to either sewer lines or treatment facilities to serve the proposed project. Standard connection fees would address any incremental impacts of the proposed project. In addition, the City of Redlands has implemented a Water Conservation Plan, outlined in the Redlands Municipal Code Title 13, Chapter 13.06 to reduce water use. With implementation of these required water-saving measures, water demand for the proposed project is expected to be within the estimated citywide water demand numbers. Therefore, impacts would be less than significant.

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





Water service would be provided to the proposed project site by the City of Redlands MUED. The 2015 San Bernardino Valley Regional UWMP, amended in June 2017, was prepared for the City of Redlands and therefore accounts for the water usage that would be attributed to development of the project site, consistent with its existing land use designation and zoning classification. According to the UWMP, the City has four 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.

The Water Supply Reliability Assessment within the UWMP<sup>25</sup> concludes that the City has adequate supplies to meet projected demands under multiple dry year scenarios, taking into account the recent prolonged drought. 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.

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

According to the General Plan Livable Community Element, most wastewater generated by sewered development within the Planning Area is treated at the City's wastewater treatment plant (WWTP) on the south side of the Santa Ana River wash at Nevada Street. Average flow is about 5.6 million gallons per day (mgd). Secondary treatment capacity is about 9.5 mgd, which will allow for anticipated growth of the City over the next 20 years. Since the project is included within the City's anticipated growth, the project's wastewater demand would not exceed the capacity of the WWTP. A less than significant impact would occur.

- d) *Would the project 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 are provided within Redlands city limits by the Quality of Life Department. Solid waste originating from Redlands is primarily disposed of by the Quality of Life Department 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 6 miles south of the site. The California Street Landfill, located approximately 1.5 miles northwest of the project, is the closest landfill to the site. The California Street Landfill has a maximum capacity of 10,000,000 cubic yards, with a remaining capacity of 6,800,000 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.

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<sup>25</sup> Water Systems Consulting, Inc., 2015 San Bernardino Valley Regional Urban Water Management Plan, amended June 2017.



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### Construction Impacts

Waste generated by the construction process would primarily consist of discarded materials and packaging. Based on an average home size of 2,000 square feet (ft<sup>2</sup>) and a construction waste generation factor of 4.34 pounds per ft<sup>2</sup>, approximately 4.34 tons of waste would be generated during the construction of each home, for a total of 898.38 tons of waste project-wide. Additional waste would be expected from the construction of internal streets, common areas, infrastructure installation, and other project-related construction activities.

Construction waste generated by the proposed project 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.

### Operational Impacts

Based on CalRecycle's estimated solid waste generation rate of 12.23 pounds (lbs) per household per day for residential sources<sup>26</sup>, the project would generate an estimated 2,531 lbs or 1.27 tons of solid waste daily. Annually, the project would generate an estimated 924,037 lbs or 462.02 tons of solid waste (207 units x 12.23 lbs x 365 days). This equates to 0.0015 percent of the California Street Landfill's annually accepted amount of solid waste, which is considered to be nominal. Operational impacts relative to solid waste generation would be less than significant.

### ***e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? Less Than Significant Impact.***

Considering the availability of landfill capacity as described in **Impact XIX.d)** above, the proposed project's solid waste disposal needs can be adequately met without a significant impact on the capacity of the nearest landfill, the California Street Landfill. Therefore, it is not expected that the proposed project would impact the City's compliance with State-mandated (AB 939) waste diversion requirements. Impacts would be less than significant.

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<sup>26</sup> CalRecycle website <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates> Accessed 7-16-19.



## XX. Wildfire

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>WILDFIRE:</b> <i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project involves the development of 207 single-family residences with associated utilities, infrastructure, open space and recreational areas on approximately 37.2 acres. The project site is bounded by existing public facilities (Citrus Valley High School) to the north, vacant land to the west, vacant land and single-family residential development to the south, and agricultural and single-family residential uses to the east. The project site previously supported agricultural uses (citrus orchards) as recently as 2018. The project site is currently fallow and disturbed.

### Discussion

**a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan? Less Than Significant Impact.**

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program,<sup>27</sup> the project site is not located in or near a state responsibility area and does not contain lands classified as very high fire hazard severity zones. The project site is located in a local responsibility zone with the majority of the site being classified as non-wildland/non-urban. There are 2.9 acres along the southern and southeastern boundary of the site that are classified as

<sup>27</sup> California Department of Forestry and Fire Protection, Fire and Resource Assessment Program website, <https://frap.fire.ca.gov/> accessed 11-21-19.



moderate fire hazard severity zone and one acre along the southwestern boundary is classified as high fire hazard. However, 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 and would not impair an adopted emergency response plan or emergency evacuation plan. This impact is less than significant.

**b) *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Less Than Significant Impact.***

Refer to **Impact XX.a)** above. The project site is not located in or near a state responsibility area. The nearest state responsibility area is located three miles to the east. In addition, the project site does not contain lands classified as very high fire hazard severity zones, nor is the project site adjacent to wildlands subject to wildfires. 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. As such, this project would not exacerbate wildfire risks or expose project occupants to pollutant concentrations or the uncontrolled spread of a wildfire. Therefore, this impact is less than significant.

**c) *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? Less Than Significant Impact.***

As discussed above, the project site is not located in or near a state responsibility area and does not contain lands classified as very high fire hazard severity zones. The project includes the construction of 207 single-family one- and two-story detached homes, associated underground utilities, and a comprehensive sidewalk and trail system. However, installation and future maintenance of these 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. The project would also provide access with adjoining uses and suitable access for emergency vehicles. Therefore, this impact is less than significant.

**d) *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? Less Than Significant Impact.***

The project site is not located in or near a state responsibility area and does not contain lands classified as very high fire hazard severity zones. The project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. This impact is less than significant.



## XXI. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>MANDATORY FINDINGS OF SIGNIFICANCE:</b>				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

- 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 IV, *Biological Resources*, the proposed project would not have the potential to: 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; or substantially reduce the number or restrict the range of an endangered, rare, threatened species. With implementation of Mitigation Measures BIO-1 and BIO-2, impacts would be reduced to a less than significant level.

As concluded in Section V, *Cultural Resources*, the proposed project would not eliminate important examples of the major periods of California history or prehistory, with implementation of Mitigation





Measures CUL-1 through CUL-5. The project would result in a less than significant impact to cultural resources and no mitigation measures are required.

- 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.***

In accordance with CEQA Guidelines Section 15183, this environmental analysis was conducted to determine if there were any project-specific effects that are peculiar to the project or its site. No project-specific significant effects peculiar to the project or its site were identified that could not be mitigated to a less than significant level. The project would not induce substantial population growth or significant traffic volumes. The project would contribute to environmental effects in the areas of biological resources, hazards/hazardous materials, noise, and transportation/traffic. However, these would not be cumulatively considerable, since they are site-specific. Further, mitigation measures incorporated herein mitigate any potential impacts associated with these environmental issues. Cumulative projects would be required to prepare the appropriate CEQA environmental documentation on a project-by-project basis. Therefore, the project does not have impacts that are individually limited, but cumulatively considerable.

- 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.***

Given the scope and nature of the proposed development, project implementation would not result in environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly. Compliance with applicable existing laws and regulations and implementation of recommended mitigation measures would ensure that the project would not result in substantial adverse effects on human beings. Therefore, impacts would be less than significant and no additional mitigation measures are required.



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## SECTION E. REFERENCES

- Bryant, William A., and Earl W. Hart. 2007. "Special Publication 42: Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps." California Geological Survey.
- California Department of Conservation, California Geological Survey. Regional Geologic & Hazards Mapping Program: Alquist-Priolo Earthquake Fault Zone. Accessed July 30, 2019. <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/Index>.
- California Department of Conservation. Farmland Mapping and Monitoring Program. Accessed November 21, 2019. <https://maps.conservation.ca.gov/DLRP/CIFF>.
- California Department of Forestry and Fire Protection. Fire and Resource Assessment Program website. Accessed November 21, 2019. <https://frap.fire.ca.gov/>.
- California Environmental Protection Agency. Cortese List Data Resources. Accessed July 29, 2019. <http://www.calepa.ca.gov/sitecleanup/corteselist/>.
- CalRecycle. "Estimated Solid Waste Generation Rates." Accessed July 16, 2019. <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>.
- City of Redlands. 2017. City of Redlands General Plan 2035.
- City of Redlands. 2017. *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report*.
- City of Redlands. 2019. "Annual Element Progress Report: Housing Element Implementation."
- City of Redlands. City Council. *A Resolution of the City Council of the City of Redlands Establishing Development Impact Fees for Accessory Dwelling Units*. Resolution No. 7951. <https://cityofredlands.org/sites/main/files/file-attachments/7951.pdf>.
- City of Redlands. Redlands Municipal Code. Continuously updated.
- City of Redlands. Taxonia Park. Accessed November 21, 2019. <https://www.cityofredlands.org/post/taxonia-park>.
- Converse Consultants. 2017. *Phase I Environmental Site Assessment*.
- GeoTek, Inc. 2017. *Updated Geotechnical and Infiltration Evaluation for Proposed Residential Development, Citrus Valley Project North of San Bernardino Avenue and West of Texas Street, City of Redlands, San Bernardino County, California*.
- Hicks & Hardwick, Inc. 2018. *Hydrology & Hydraulics Preliminary Report City of Redlands County of San Bernardino for Griffin Residential III, LLC Tract 20257*.



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- KTGY Group, Inc. 2019. *Heritage Specific Plan*.
- LSA Associates. 2018. *Biological Resources Constraints Analysis Summary*.
- LSA Associates. 2018. *Cultural Resources Assessment*.
- LSA Associates. 2018. *San Bernardino Kangaroo Rat Survey Results*.
- Michael Baker International. 2019. *Heritage Residential Specific Plan Project – Air Quality/Greenhouse Gas Emissions Technical Memorandum*.
- Michael Baker International. 2019. *Heritage Residential Specific Plan Project – Noise Technical Memorandum*.
- Michael Baker International. 2019. *Peer Review of the Cultural Resources Assessment*.
- Michael Baker International. 2019. *Peer Review of the LSA Biological Resources Constraints Analysis Summary and San Bernardino Kangaroo Rat Survey Results*.
- Michael Baker International. 2019. *Peer Review of the Pioneer & Texas Residential Traffic Impact Analysis*.
- Michael Baker International. 2019. *Phase I ESA CEQA Adequacy Review*.
- Urban Crossroads. 2020. *Pioneer & Texas Residential Traffic Impact Analysis*.
- Water Systems Consulting, Inc. 2017. *2015 San Bernardino Valley Regional Urban Water Management Plan, amended June 2017*.



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