
Initial Study/Mitigated Negative Declaration **Whitewood South Apartment Project**

NOVEMBER 2022

Prepared for:

CITY OF MURRIETA

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Table of Contents

SECTION	PAGE
Acronyms and Abbreviations.....	v
1 Introduction	1
1.1 Project Overview	1
1.2 California Environmental Quality Act Compliance	1
1.3 Public Review Process	1
1.4 Initial Study Checklist	2
2 Project Description	3
2.1 Project Location	3
2.2 Environmental Setting.....	3
2.3 Project Characteristics	3
2.4 Project Construction and Phasing	6
2.5 Project Approvals.....	6
3 Initial Study Checklist.....	7
3.1 Aesthetics	11
3.2 Agriculture and Forestry Resources	14
3.3 Air Quality.....	16
3.4 Biological Resources	27
3.5 Cultural Resources	40
3.6 Energy	54
3.7 Geology and Soils	59
3.8 Greenhouse Gas Emissions.....	64
3.9 Hazards and Hazardous Materials	70
3.10 Hydrology and Water Quality.....	73
3.11 Land Use and Planning	78
3.12 Mineral Resources	79
3.13 Noise	79
3.14 Population and Housing.....	86
3.15 Public Services	87
3.16 Recreation.....	90
3.17 Transportation	91
3.18 Tribal Cultural Resources.....	98
3.19 Utilities and Service Systems.....	108
3.20 Wildfire	113
3.21 Mandatory Findings of Significance	117

4	References and Preparers.....	121
4.1	References Cited	121
4.2	List of Preparers	127

APPENDICES

A	Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis
B	Biological Resource Attachments
C	CONFIDENTIAL Cultural Resources Technical Report
D	Geotechnical Due Diligence Review and Rippability Evaluation
E	Phase I Environmental Site Assessment
F-1	Hydrology Report
F-2	Preliminary Water Quality Management Plan
G	Noise Report
H-1	Traffic Impact Analysis Report
H-2	Vehicle Miles Traveled Assessment
I-1	Fire Behavior Analysis
I-2	Conceptual Fuel Modification Plan

FIGURES

1	Project Location	129
2	Land Use Designations	131
3	Zoning Designations	133
4	Proposed Site Plan.....	135
5	Biological Resource Impacts	137
6	Traffic Study Area	139
7	Murrieta Model TAZ's.....	141
8	Existing Homes in the Project TAZ.....	143

TABLES

2-1	Tentative Project Construction Schedule	6
3.3-1	South Coast Air Quality Management District Air Quality Significance Thresholds.....	19
3.3-2	Estimated Maximum Daily Construction Criteria Air Pollutant Emissions (lbs/day)	20
3.3-3	Estimated Maximum Daily Operational Criteria Air Pollutant Emissions in Opening Year 2023 (lbs/day).....	21
3.3-4	Construction Localized Significance Thresholds Analysis (lbs/day)	23
3.4-1	Vegetation Communities and Land Covers within the Project Site.....	30
3.4-2	Habitat Conservation Plan Consistency Analysis Summary	39
3.6-1	Estimated Construction Fuel Use.....	55

3.6-1	Estimated Construction Fuel Use.....	55
3.6-2	Project Consistency with Applicable General Plan Energy Policies.....	58
3.8-1	Estimated Annual Construction GHG Emissions (MTCO ₂ e/year)	66
3.8-2	Estimated Annual Operational GHG Emissions (MTCO ₂ e/year).....	67
3.8-3	Climate Action Plan Consistency Checklist and Project Consistency	69
3.13-1	Measured Baseline Outdoor Ambient Noise Levels.....	81
3.13-2	Construction Noise Model Results Summary.....	82
3.13-3	Modeled Traffic Noise With and Without Project (CNEL).....	84
3.17-1	Project Trip Generation.....	95
3.19-1	Multiple Dry Years Supply and Demand Comparison (Acre-Feet per Year).....	111
3.19-2	Existing Landfills	112

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	methane
City	City of Murrieta
CNDBB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
County	County of Riverside
CRPR	California Rare Plant Rank
dBA	A-weighted decibels
DOC	California Department of Conservation
DPM	diesel particulate matter
EIR	environmental impact report
EMWD	Eastern Municipal Water District
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EVSE	electric vehicle service equipment
FESA	Federal Endangered Species Act
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
I	Interstate
IS	initial study
L _{eq}	equivalent continuous sound level
L _{max}	maximum sound level during the measurement interval
LOS	level of service
LST	localized significance threshold
MFR	Multiple-Family Residential

Acronym/Abbreviation	Definition
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MND	mitigated negative declaration
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric tons
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OHWM	Ordinary High-Water Mark
PDF	Project design feature
PM ₁₀	course particulate matter
PM _{2.5}	fine particulate matter
PPV	peak particle velocity
project	Whitewood South Apartment Project
project applicant	Murrieta Whitewood Multifamily, LLC
RCNM	Roadway Construction Noise Model
ROW	right-of-way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SO _x	sulfur oxides
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminants
TAZ	Traffic Analysis Zone
TCR	Tribal Cultural Resource
TIA	Traffic Impact Analysis
TVRWRF	Temecula Valley Regional Water Reclamation Facility
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOC	volatile organic compound

1 Introduction

1.1 Project Overview

The City of Murrieta (City) received an application from Murrieta Whitewood Multifamily, LLC (project applicant) requesting the following approvals for development of the Whitewood South Apartment Project (project or proposed project), located at the southwest corner of Whitewood Road and Lee Lane, Murrieta, California:

- Development Plan (DP-2021-2347)

The approximately 18.7-acre project site is currently vacant. The project involves the construction of a 324-unit multifamily development and associated improvements.

The project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City is the lead agency with principal responsibility for considering the project for approval (14 CCR 15000 et seq.).

1.2 California Environmental Quality Act Compliance

The City is the lead CEQA agency responsible for the review and approval of the proposed project. Based on the findings of the initial study (IS), the City has made the determination that a mitigated negative declaration (MND) is the appropriate environmental document to be prepared in compliance with CEQA (California Public Resources Code, Section 21000 et seq.). As stated in CEQA Section 21064, an MND may be prepared for a project subject to CEQA when an IS has identified no potentially significant effects on the environment.

This draft IS/MND has been prepared by the City as lead agency and is in conformance with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the MND and the IS Checklist is to determine any potentially significant impacts associated with the proposed project and to incorporate mitigation measures into the project design, as necessary, to reduce or eliminate the significant or potentially significant effects of the project.

1.3 Public Review Process

In accordance with CEQA, a good faith effort has been made during the preparation of this IS/MND to contact affected agencies, organizations, and persons who may have an interest in this project.

In reviewing the IS/MND, affected public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the project's possible impacts on the environment. The draft IS/MND and related documents are available for review on City's website (<https://www.murrietaca.gov/290/Public-Notices>).

Comments on the IS/MND may be made in writing before the end of the public review period. Following the close of the public comment period, the City will consider this IS/MND and comments thereto in determining whether to approve the proposed project.

Written comments on the IS/MND should be sent to the following address by 5 p.m., December 29, 2022.

City of Murrieta
Planning Division
1 Town Square
Murrieta, California 92562
Contact: Mr. Chris Tracy, AICP Senior Planner
Email: ctracy@murrietaca.gov

1.4 Initial Study Checklist

Dudek, under the City's guidance, prepared the project's Environmental Checklist (i.e., IS) per CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3 of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination made in the checklist for the project.

For this IS/MND, the following four possible responses to each individual environmental issue area are included in the checklist:

1. Potentially Significant Impact
2. Less-than-Significant Impact with Mitigation Incorporated
3. Less-than-Significant Impact
4. No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the project. In doing so, the City will determine the extent of additional environmental review, if any, for the project.

2 Project Description

2.1 Project Location

The project site is located in the northern portion of the City, which is located in the Southwest Area Plan of the County of Riverside (County) (Figure 1, Project Location). Regionally, the City is bordered by the cities of Temecula, Wildomar, and areas of unincorporated Riverside County. Locally, the project site is located east of Whitewood Road, south of Lee Lane, north of Greenberg Place, and approximately 650 feet east of Epple Street. The approximately 18.7-acre site consists of Assessor's Parcel Number 392-320-014. It is mapped on the U.S. Geological Survey 7.5-minute Murrieta, California quadrangle, within Township 6 South, Range 3 West, Section 35.

2.2 Environmental Setting

City of Murrieta

The City is approximately 33.61 square miles with approximately 115,000 residents in the southwest region of the County. Approximately one-third of the City is developed with residential uses, one-third of the City is made up of vacant land, with the remaining being developed with commercial centers and business parks along highways and major streets, and industrial uses predominately on the west side of the City (City of Murrieta 2011a).

Existing Project Site

The approximately 18.7-acre rectangular shaped project site is currently vacant with no existing structures. The site has never been developed, and currently contains mowed non-native grasslands and native scrub areas with a swath of riparian habitat through the center of the property. The project site is located on Whitewood Road, between Greenberg Place and Lee Lane. The General Plan land use designation for the project site is Multiple-Family Residential (MFR), and the current zoning is Multi-Family 2, Residential (MF-2) (Figure 2, Land Use Designations; Figure 3, Zoning Designations). The allowable density range for the MFR designation is 18 to 30 units per acre, and the allowable density range for the MF-2 zone is 15.1 to 18 units per acre (City of Murrieta 2011a; 2021a).

Surrounding Land Uses

Surrounding land uses include MFR to the west, east and south of the project site. The area to the north of the project site has a land use designation of Innovation, which provides a wide-variety and intensity of non-residential uses.

2.3 Project Characteristics

The project consists of a 324-unit multifamily development to include one-, two-, and three-story residential buildings. The residential buildings are divided to maintain the existing drainage course running through the middle of the project site. The northern portion of the site, abutting Lee Lane, would consist of 11 residential buildings, and the southern portion of the site, abutting Greenberg Place, would have 33 residential buildings. The northern portion of the site would consist of three two-story residential buildings and eight three-story residential buildings. The southern portion of the site would consist of 15 one-story residential buildings, four two-story residential buildings, and 14 three-story residential buildings. Additionally, the project would include associated recreation and

leasing buildings, pool areas, a dog park, fire pits, children’s playground, and other miscellaneous amenities divided between the northern and southern portions of the site (Figure 4, Proposed Site Plan).

Site Access and Parking

The project site would be accessible via four entries. The primary access to the northern portion of the site would be a driveway located along Lee Lane. The primary access to the southern portion of the site would be a driveway located along Greenberg Place. The project site would also have two right turn in/right turn out driveways located along Whitewood Road, with one allowing access to the northern portion of the site and the other allowing access to the southern portion of the site.

Parking would be divided between the north and south parking areas. Overall, parking would consist of 270 assigned open stalls, 81 unassigned open guest stalls, and 326 assigned garage stalls. 103 of these stalls would be electric vehicle charging stations, and 18 stalls would be American’s with Disabilities Act-accessible.

Utility and Infrastructure Improvements

Whitewood Road contains an existing 12-inch water line and an existing 15-inch sewer line, both maintained by Eastern Municipal Water District (EMWD). The project would add four eight-inch water lines connecting the project site to the existing 12-inch water line. Smaller water lines of varying sizes would run throughout the project site, connecting to the four eight-inch water lines. Proposed eight-inch sewer lines would run throughout the project site, connecting to the existing 15-inch sewer line, and two private on-site sewer lift stations would be constructed on the project site. Two existing 60-inch storm drains run underneath Whitewood Road and discharges into the existing drainage easement in the middle of the project site. Two proposed biofiltration basins are planned as part of the drainage system for the project, with proposed 18-inch storm drain lines conveying stormwater to the biofiltration basins.

Project Design Features

- PDF-1 The project applicant shall require that all interior paint that is applied to the proposed structures to utilize Super-Compliant VOC paints, which are defined by SCAQMD as meeting the “super compliant” VOC standard of 10 grams per liter.
- PDF-2 The project applicant shall require that a minimum of 80 percent of the non-hazardous construction waste to be either reused or recycled.
- PDF-3 The project applicant shall require that a minimum of six percent of all parking spaces are equipped with electric vehicle service equipment (EVSE) to allow for electric vehicle charging.
- PDF-4 The project applicant shall prepare and implement a Landscape Plan that meets the tree planting requirements in Section 16.26 “Landscaping Standards and Water Efficient Landscaping” of the City Municipal Code.
- PDF-5 The following avoidance and minimization measures shall be implemented during project construction activities:

A qualified biologist shall conduct a training session for project personnel prior to grading that provides a description of special-status species and their habitats potentially occurring on the

project site, the general provisions protecting these species, the penalties associated with violating the provisions, and the measures that are incorporated within the project to conserve the special-status species.

Construction limits along the northern boundary of the off-site grading area and western side of the northern off-site storm drain line shall be clearly flagged so that adjacent native vegetation is avoided.

Construction work and operations and maintenance areas shall be kept clean of debris, such as trash and construction materials. Fully covered trash receptacles that are animal-proof shall be installed and used during construction to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles shall be removed at least once a week from the project site.

Nighttime construction shall be minimized to the extent possible. However, if nighttime activity (e.g., equipment maintenance) is necessary, the speed limit shall be ten miles per hour.

Staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents shall be located within the project site or adjacent developed areas.

To prevent inadvertent entrapment of wildlife during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered with plywood or similar materials at the close of each working day, or be provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped wildlife. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape.

- All pipes, culverts, and similar structures with a diameter of four inches or more that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for wildlife and nesting birds before the pipe is buried, capped, or otherwise used or moved in any way. If an animal is discovered inside a pipe, that section of pipe shall not be moved until the animal has either moved from the structure on its own accord or until the animal has been captured and relocated by a qualified biologist.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

The following avoidance and minimization measure shall be implemented as part of project operations:

- The project landscape plan shall avoid the use of any invasive, non-native plant species rated as “high” or “moderate” by the California Invasive Plant Council’s Invasive Plant Inventory (Cal-IPC 2022).
- The project landscape plan shall avoid the use of any species listed in Table 6-2 of the MSHCP.

PDF-6

Prior to initiation of construction activities, a burrowing owl pre-construction survey shall be conducted in accordance with the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (RCA 2006). In accordance with these instructions, the survey shall occur within 30 days prior to ground-disturbance activities. A

minimum of one survey site visit within the described timeframe prior to disturbance is required to confirm presence or absence of burrowing owl on the site. Pre-construction surveys shall be conducted by a qualified biologist.

If surveys confirm occupied burrowing owl habitat is located within the project site or within 500 feet of the project site, avoidance measures shall be implemented consistent with the requirements of the Western Riverside County Multiple Species Habitat Conservation Plan.

2.4 Project Construction and Phasing

Construction of the project is anticipated to start in March 2022 and would last approximately 16 months, ending in May 2023. The Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis (Appendix A) includes a construction schedule used for the air quality and greenhouse gas (GHG) emissions modeling and provides a list of the type and number of construction equipment that would be used during each phase of project construction.

At the time of the preparation of this analysis, it was anticipated that construction would begin in April 2022. However, due to delays, construction is now anticipated to begin in Fall 2022. To maintain consistency with other technical analysis herein, a start date of April 2022 is maintained throughout the ISMND because it represents a worst-case scenario for criteria air pollutant and GHG emissions. This is because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years. As such, while construction is anticipated to begin in Fall 2022, the analysis contained herein is based on the following assumptions:

Table 2-1. Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date
Site Preparation	04/29/2022	05/12/2022
Grading	05/13/2022	06/23/2022
Building Construction	06/24/2022	08/17/2023
Paving	04/18/2023	08/17/2023
Architectural Coating	04/18/2023	08/17/2023

Source: Appendix A.

The City of Murrieta Climate Action Plan Checklist for the project has been completed and is included as Table 3.8-3 in Section 3.6, Energy, of this ISMND and is included as Appendix A of the Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis (Appendix A).

2.5 Project Approvals

The project would require the following approvals:

- Development Plan (DP-2021-2347)

3 Initial Study Checklist

1. **Project title:**
Whitewood South Apartment Project, DP-2021-2347
2. **Lead agency name and address:**
City of Murrieta
Planning Division
1 Town Square
Murrieta, California 92562
3. **Contact person and phone number:**
Mr. Chris Tracy, AICP Senior Planner, City of Murrieta
4. **Project location:**
Southwest corner of Whitewood Road and Lee Lane
5. **Project sponsor's name and address:**
Murrieta Whitewood Multifamily, LLC
217 Medano Street
Rancho Mission Viejo, California 90044
6. **General plan designation:**
Multiple-Family Residential (MFR), 18 to 30 DU/acre
7. **Zoning:**
Multi-Family 2, Residential (MF-2), 15.1 to 18 DU/acre
8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**
The approximately 18.7-acre project site is currently vacant. The project involves the construction of a 324-unit multifamily development and associated improvements.
9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**
Surrounding land uses include MFR to the west, east and south of the project site. The area to the north of the project site has a land use designation of Innovation.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**
California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alternative Agreement

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

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.

Tribal consultation has been initiated. Please refer to Section 3.5, Cultural Resources, and 3.18, Tribal Cultural Resources, of this IS/MND.

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.

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

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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature

CHRIS TRACY, AICP
SENIOR PLANNER

11/23/22
Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less Than Significant With Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

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

a) Would the project have a substantial adverse effect on a scenic vista?

Less-Than-Significant Impact. The City of Murrieta General Plan EIR describes a scenic vista as “a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed” (City of Murrieta 2011b). Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features (City of Murrieta 2011b). The project site is located approximately 1.5 miles southeast of the steep ridgelines of the Greer Ranch hills, and the Hogbacks are located to the south near Los Alamos. Additionally, there are hills approximately 0.5 miles to the east of the project site. Due to the considerable distance that separates the project site from the nearest concentration of ridgelines, the proposed project would not be located in the viewshed of these identified scenic resources. Overall, the project site is located well outside the viewshed of any scenic vistas or other important visual resources.

Furthermore, the project would be built consistent with existing patterns of development in the surrounding area, which is becoming more urbanized, including the residential neighborhood west of the project site, Vista Murrieta High School to the southwest, and the Costco Murrieta project under construction to the southwest. In addition, the project would be subject to design review by the City and would meet the City’s conditions of approval, which will ensure that proposed structures and landscaping would be consistent with the City’s General Plan and Municipal Code. Therefore, implementation of the proposed project

consistent with the development standards in the City's Municipal Code and as contemplated by the General Plan. Therefore, impacts associated with scenic vistas would be less than significant.

b) *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. The California Department of Transportation (Caltrans) designates official and eligible scenic highways within the state. There are no designated or proposed state scenic highways within the vicinity of the project site (Caltrans 2018). The nearest highway to the proposed site is Interstate (I) 215, which is an eligible state scenic highway for a three-mile portion north of the site but is not listed as a designated scenic highway. Therefore, implementation of the proposed project would not result in an impact related to scenic resources within a state scenic highway.

c) *In non-urbanized areas, would the project 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. Section 21071 of the California Public Resources Code (i.e., CEQA) defines an "urbanized area" as "(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." As of January 1, 2021, the U.S. Census Bureau estimated the population of the City to be 115,172 persons (DOF 2021). Therefore, the City is located within an urbanized area as defined by CEQA.

To ensure that both current and future development within the City is designed and constructed to conform to existing visual character and quality of the surrounding built environment, the City's Municipal Code includes design standards, specific to each Zoning District, related to building height, parking, landscaping requirements, and other visual considerations. The purpose is to regulate and restrict the uses of buildings and structures, and to encourage the most appropriate use of land. The City's General Plan Land Use Map designates the project site as Multiple-Family Residential (MFR), and the City's Zoning Map shows the site zoned as Multi-Family 2, Residential (MF-2). The proposed project will be required to be developed in accordance with the existing land use and zoning designations. The project's consistency with these land use and zoning designations would be reviewed during the plan-check phase of project review. Therefore, because the project would be required to comply with all applicable regulations governing scenic quality, potential impacts would be less than significant.

Additionally, development of the project would be consistent with surrounding development and would not degrade the existing visual character of the project site and its surroundings. The project site is located in an urbanized area of the City and is currently characterized as an undeveloped site. Construction of the project would require the use of heavy machinery such as large trucks, cranes, bull dozers, and other equipment needed for construction activities. These activities would be temporary and would conclude with completion of construction of the project.

Once construction of the project is complete, the condition of the site would change from an undeveloped site with grading activities to a developed condition for residential purposes. The project would be built consistent with existing patterns of development in the surrounding area, which is becoming more

urbanized, including the residential neighborhood west of the project site, Vista Murrieta High School to the southwest, and the Costco Murrieta project under construction to the southwest. In addition, the project would be subject to design review by the City and would meet the City's conditions of approval, which will ensure that proposed structures and landscaping would be consistent with the City's General Plan and Municipal Code. Therefore, implementation of the proposed project consistent with the development standards in the City's Municipal Code, as required by the City's conditions of approval and as reviewed as part of the plan check process, would not substantially degrade the existing visual character or quality of the site or its surroundings or result in significant visual impacts. Impacts would be less than significant.

Although the impacts would be less than significant, the project is required to adhere to the following applicable aesthetics mitigation measures identified in the City's General Plan EIR.

- GP AES-1 For future development located in or immediately adjacent to residentially zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from the residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.
- GP AES-2 Construction documents shall include language requiring the construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.
- GP AES-3 Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.

d) *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. Currently, there are no existing lighting sources on the project site since it is undeveloped and vacant; however, the project site is located in an area where nighttime lighting is a relatively common feature. Existing light sources in the area include streetlights installed along Whitewood Road to the west of the project site and local neighborhood roads, exterior and interior lighting associated with residential development in the surrounding area, and lights from motorists.

The project would include exterior lighting for safety and security purposes. The project would comply with the California Green Building Standards, County ordinances, and the City's Municipal Code requirements with respect to lighting. Parking and site lighting would incorporate cutoff lenses to keep light from spilling over onto adjacent properties and to keep light sources from being visible on or directing light rays onto adjoining property. Lighting on the project site would be reduced to levels below 4050 lumens prior to 11:00 p.m. to ensure compliance with Section 16.18.100 of the City's Municipal Code and to reduce nighttime lighting impacts on the Mount Palomar Observatory. The project would comply with the City's lighting regulations (City's Municipal Code Section 16.18.100) and with the Mount Palomar Observatory lighting requirements as established in City's Municipal Code Section 16.18.110. Therefore, based on compliance with local requirements, impacts associated with light and nighttime glare would be less than significant.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. 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:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

- 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?***

No Impact. The project site is currently a vacant parcel with no existing uses. The California Department of Conservation (DOC) (2016) has not identified the site as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

Although, the project site is predominately designated as “Farmland of Local Importance,” as well as “Grazing Land,” by the DOC, these are not categories under this CEQA criterion. Farmland of Local

Importance is land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production, but does not meet the criteria of Prime, Statewide, or Unique Farmland. In this case, the DOC's designation does not recognize the fact that the site has a land use designation and zoning for residential uses, and has surrounding residential land uses, which suggests a potential use for farmland is highly unlikely to occur because of the site location.

Because the site is not identified as Prime Farmland, Unique Farmland or Farmland of Statewide Importance, and because the "Farmland of Local Importance" and "Grazing Land" designations are not categories under this criterion and is also inconsistent with the site's location and character, there would be no impact related to converting Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. The project site has a land use designation and zoning for residential uses. The site is not planned for or used for any agricultural or forestry purposes. The project is not associated with or subject to a Williamson Act contract. Therefore, there would be no impact related to conflict with existing zoning or a Williamson Act Contract.

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. The project site is zoned MF-2 and surrounding areas are developed with residential uses. No portion of the site is considered forest land¹ as defined in California Public Resources Code Section 12220(g). Timberland² (as defined by California Public Resources Code Section 4526) or timberland-zoned timberland production³ (as defined by Section 51104(g) of the Government Code) is not present on site, nor are there any active or potential commercial timber operations present in the area. Therefore, the project would not conflict with lands zoned for forest land, timberland, or timberland production and there would be no impact.

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

No Impact. Refer to answer provided in "c."

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?*

No Impact.

¹ "Forest land" is land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

² "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

³ "Timberland production zone" means an area is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

Direct Impacts

Refer to answers provided in “a,” “b,” and “c.”

Indirect Impacts

Further, because the proposed project is consistent with the General Plan Land Use and Zoning designations, as explained in Section 3.11, Land Use and Planning, and would not directly or indirectly induce unplanned growth as explained in Section 3.14, Population and Housing, the proposed project would not result in the conversion of Farmland or forest land to non-agricultural and non-forest uses, indirect impacts would be less than significant.

3.3 Air Quality

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

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less-than-Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the SCAB’s Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP

for the SCAB is the 2016 AQMP (SCAQMD 2017).⁴ The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional air quality strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2016 AQMP, and if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A. As presented in that analysis and summarized in Section 3.3(b) below, the proposed project would not generate construction or operational criteria air pollutant emissions that exceed the SCAQMD's thresholds, and the project would therefore be consistent with Criterion No. 1.

The second criterion regarding the potential of the proposed project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the proposed project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2017).⁵ The SCAG RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the

⁴ The SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 parts per billion) for the SCAB and the Coachella Valley. Preliminary rule development for the 2022 AQMP is expected to begin in July 2021 including control measures developed through Residential and Commercial Buildings and Mobile Source Working Groups.

⁵ Information necessary to produce the emissions inventory for the South Coast Air Basin (SCAB) is obtained from the South Coast Air Quality Management District (SCAQMD) and other governmental agencies, including the California Air Resources Board (CARB), California Department of Transportation, and Southern California Association of Governments (SCAG). Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy are integrated in the 2016 Air Quality Management Plan (SCAQMD 2017).

2016 AQMP is generally consistent with local government plans. The relevant local plan for the proposed project is the City's General Plan (City of Murrieta 2011a).

The City's General Plan Land Use Map designates the project site as Multiple-Family Residential (City of Murrieta 2011a) and is zoned Multiple Family 2 Residential (MF-2) (City of Murrieta 2020a). The proposed residential apartment project is an allowed use within the existing land use designation and zoning. As such, since the proposed project is consistent with the current land use designation and zoning and is not anticipated to result in residential population growth or generate an increase in employment that would conflict with existing employment-population projections, it would not conflict with or exceed the assumptions in the 2016 AQMP. Accordingly, the proposed project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

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. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

A quantitative analysis was conducted to determine whether the proposed project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀; coarse particulate matter), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}; fine particulate matter), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O₃, as well as CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

Regarding NAAQS and CAAQS attainment status,⁶ the SCAB is designated as a nonattainment area for federal and state O₃ and PM_{2.5} standards (CARB 2019; EPA 2020). The SCAB is also designated as a nonattainment area for state PM₁₀ standards; however, it is designated as an attainment area for federal PM₁₀ standards. The SCAB is designated as an attainment area for federal and state CO and NO₂ standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.⁷

⁶ An area is designated as in attainment when it is in compliance with the National Ambient Air Quality Standards and/or the California Ambient Air Quality Standards. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the U.S. Environmental Protection Agency and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

⁷ Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The proposed project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in April 2019, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the revised SCAQMD Air Quality Significance Thresholds (SCAQMD 2019).

Table 3.3-1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds (lbs/day)		
Pollutant	Construction	Operation
VOC	75	55
NO _x	100	55
CO	550	550
SO _x	150	150
PM ₁₀	150	150
PM _{2.5}	55	55
Lead	3	3
Toxic Air Contaminants and Odor Thresholds		
Toxic air contaminants ^b	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); PM_{2.5} = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.

^a The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

^b Toxic air contaminants include carcinogens and noncarcinogens.

A project would result in a cumulatively considerable net increase for O₃, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3.3-1. These emission-based thresholds for O₃ precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O₃ impacts to occur) because O₃ itself is not emitted directly, and the effects of an individual project's emissions of O₃ precursors (i.e., VOCs and NO_x) on O₃ levels in ambient air cannot be determined through air quality models or other quantitative methods.

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from construction and operation of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects, including residential development. The following discussion summarizes the quantitative project-generated construction and operational emissions and impacts that would result from implementation of the proposed project. Detailed assumptions and results of this analysis are included in Appendix A.

Construction Emissions

Construction of the proposed project would include site preparation, grading of approximately 16 acres, building construction, application of architectural coatings, and paving for on-site roads, parking spaces, and roadway improvements for portions of Whitewood Road Lee Lane, and Greenberg Place. These construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM₁₀ and PM_{2.5} emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5}. Application of architectural coatings, such as exterior paint and other finishes, and application of asphalt pavement would also produce VOC emissions. Construction emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Construction of the proposed project is anticipated to begin in April 2022 and would last approximately 16 months. Table 3.3-2 shows the estimated maximum daily emissions associated with construction of the proposed project for both years of construction activity (2022 and 2023). As shown, the proposed project's maximum daily construction emissions would not exceed the SCAQMD thresholds for any criteria air pollutant during either year of construction.

Table 3.3-2. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions (lbs/day)

Construction Phase	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Year 1 (2022)						
Site Preparation ¹	4.55	50.73	20.81	0.06	10.07	5.99
Grading ¹	4.37	47.83	30.08	0.07	5.76	3.25
Building Construction	3.09	19.54	30.21	0.07	4.91	1.90
Year 2 (2023)						
Building Construction	2.83	17.37	28.99	0.07	4.78	1.77
Paving	1.29	10.23	15.13	0.23	0.68	0.51
Architectural Coating	24.13	1.45	4.16	<0.01	0.79	0.26
Combined ²	28.25	29.21	48.28	0.10	6.24	2.55
Maximum Daily Emissions	28.25	50.73	48.28	0.10	10.07	5.99
<i>SCAQMD Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold exceeded?	No	No	No	No	No	No

Source: Appendix A

Notes:

¹ Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.

² Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, the combined regional criteria pollutant emissions from building construction, paving and architectural coating phases of construction are used as the daily maximum intensity scenario for Year 2 (2023).

Operational Emissions

Operation of the proposed project would generate VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from area sources, energy sources, and mobile sources, which are discussed below. CalEEMod default assumptions were used, except where noted. For further detail on the assumptions and results of this analysis, please refer to Appendix A.

Area Sources

Area sources include emissions from consumer products, landscape equipment, hearths, and architectural coatings. The area source emissions were estimated based on CalEEMod default assumptions for on-going operations of the proposed project. SCAQMD Rule 445 restricts the installation of wood-burning devices in new developments. Accordingly, preliminary project plans indicate that no fireplaces or wood stoves would be installed in the proposed residential apartment units, with the exception of communal natural-gas-only fireplaces in the two recreational buildings. CalEEMod default area source parameters were updated to account for emissions from the two natural-gas-only fireplaces during operation.

Energy Sources

Energy sources include emissions associated with building electricity, and natural gas usage (non-hearth). The energy source emissions were estimated based on CalEEMod default assumptions for on-going operations of the proposed 324 residential apartment units.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles traveled (VMT) from new trips to and from the project site. The CalEEMod default trip rate of 7.32 trips per residential unit was used to estimate emissions from proposed vehicular sources during the week (Monday–Friday), which is consistent with the rate indicated in the Traffic Impact Analysis (TIA) prepared for the proposed project (Appendix H-1). The CalEEMod default trip rates were used to estimate emissions from vehicle trips on Saturdays and Sundays, which are 8.14 and 6.28 per residential unit, respectively.

The proposed project is assumed to begin operation by 2023 after completion of construction. Table 3.3-3 shows the estimated maximum daily emissions associated with operation of the proposed project. As shown, the proposed project's maximum daily operational emissions of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} would not exceed the SCAQMD's significance thresholds in opening year 2023.

Table 3.3-3. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions in Opening Year 2023 (lbs/day)

Source	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	7.87	0.34	26.77	<0.00	0.15	0.15
Energy	0.14	1.24	0.53	0.01	0.10	0.10
Mobile	8.57	12.11	84.67	0.19	19.19	5.22
Total Daily Emissions	16.59	13.69	111.96	0.20	19.44	5.47
<i>SCAQMD Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold exceeded?	No	No	No	No	No	No

Source: Appendix A

As previously discussed, the SCAB has been designated as a federal nonattainment area for O₃ and PM_{2.5}, and a state nonattainment area for O₃, PM₁₀, and PM_{2.5}. However, as indicated in Tables 3.3-2 and 3.3-3, project-generated construction and operational emissions would not exceed the SCAQMD emission-based significance thresholds for VOCs, NO_x, PM₁₀, or PM_{2.5}.

Cumulative localized impacts would potentially occur if a project were to occur concurrently with another off-site project. Schedules for potential future projects near the project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.⁸ However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM₁₀ and PM_{2.5} emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all sites in the SCAQMD.

Therefore, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-than-Significant Impact. The project would not expose sensitive receptors to substantial pollutant concentrations as evaluated in the following discussion.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include sites such as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

The closest sensitive receptors to the project site include a home located approximately 18 feet to the east, and Vista Murrieta High School, which is located approximately 0.3 miles southwest of the project site.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of proposed project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2008a). The LST Methodology provides Look-Up Tables with thresholds based on location and size of the project size (1-acre, 2-acres, and 5-acres) and distance to the nearest sensitive receptors. The proposed project is located within Source-Receptor Area 26, which covers the Temecula Valley, and the nearest sensitive receptor is a home located 18 feet (5.5 meters) to the east.

The Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, prepared by SCAQMD, provides guidance on determining the appropriate acreage for a project site (SCAQMD 2015). According to the Fact

⁸ The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

Sheet, site acreage should be based on the maximum number of acres disturbed on the peak day of construction, where crawler tractors, graders, and rubber-tired dozers are all assumed to disturb 0.5 acres in an 8-hour day, and scrapers are assumed to disturb 1.0 acre in an 8-hour day. Using this methodology, the maximum acreage disturbed per day during construction of the proposed project would be 4 acres during the grading phase. As such, the 2-acre and 5-acre project sites shown in the Look-Up Tables were interpolated for the 4-acre LST thresholds utilized in this analysis. For further detail on the assumptions and results of this analysis, please refer to Appendix A.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with off-road equipment exhaust and fugitive dust generation. According to the Final Localized Significance Threshold Methodology, “off-site mobile emissions from the project should not be included in the emissions compared to the LSTs” (SCAQMD 2008a). Trucks and worker trips associated with the proposed project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Therefore, off-site emissions from trucks and worker vehicle trips are not included in the LST analysis. The maximum daily on-site emissions generated construction of the proposed project in each construction phase are presented in Table 3.3-4 and are compared to the SCAQMD localized significance criteria for Source-Receptor Area 26 to determine whether project-generated on-site emissions would result in potential LST impacts. As shown, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts of the proposed project would be less than significant.

Table 3.3-4. Construction Localized Significance Thresholds Analysis (lbs/day)

Phase	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	50.45	20.11	9.86	5.93
Grading	47.55	29.31	5.53	3.19
Building Construction (Year 1)	16.11	18.09	1.32	0.90
Combined Building Construction (Year 2), Paving, and Architectural Coatings ¹	25.90	33.00	1.39	1.23
Maximum Daily Onsite Construction Emissions	50.45	33.00	9.86	5.93
<i>SCAQMD LST Criteria</i>	325	1,677	11	7
Threshold exceeded?	No	No	No	No

Source: Appendix A

Notes:

- ¹ Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, the combined regional criteria pollutant emissions from building construction, paving, and architectural coating phases of construction are used as the daily maximum intensity scenario for Year 2 (2023).

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed “CO hotspots.” The transport of CO is extremely limited, as it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of

service (LOS).⁹ Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. As indicated in the TIA and Section 3.17, Transportation, the proposed project could cause the LOS to operate at an unacceptable level (Appendix H-1). Specifically, the Whitewood Road at Clinton Keith Road intersection would operate at LOS E and LOS F (AM and PM peak hour, respectively) in the Year 2023 Cumulative Plus Project traffic condition.

At the time that the SCAQMD Handbook (1993) was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP¹⁰ (SCAQMD 2003) for the four worst-case intersections in the SCAB: Wilshire Boulevard and Veteran Avenue, Sunset Boulevard and Highland Avenue, La Cienega Boulevard and Century Boulevard, and Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. The 2003 AQMP also projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 ppm at the Sunset Boulevard and Highland Avenue intersection in 2002; the maximum 8-hour CO concentration was 3.4 ppm at the Wilshire Boulevard and Veteran Avenue in 2002.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. Because the project is not anticipated to increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day, a CO hotspot is not anticipated to occur.

Based on these considerations, the proposed project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. This conclusion is supported by the analysis in Section 3.17, which demonstrates that traffic impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Based on these considerations, the proposed project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the closest sensitive receptor land uses is a residence located approximately 18 feet to the east of the project site.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net

⁹ According to the City of Murrieta Traffic Impact Analysis Preparation Guidelines, intersections operating at LOS D or worse are considered unacceptable (City of Murrieta 2021b)

¹⁰ SCAQMD's CO hotspot modeling guidance has not changed since 2003.

increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. TACs that would potentially be emitted during construction activities associated with the proposed project would be diesel particulate matter.

The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and heavy-duty trucks during construction of the project and the associated potential health impacts to sensitive receptors. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts; however, no short-term, acute relative exposure level has been established for DPM. Total project construction would last approximately 16 months, after which project-related TAC emissions would cease. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual receptor; however, such assessments should also be limited to the period/duration of activities associated with the project. A 16-month construction schedule represents a short duration of exposure (7% of a 30-year exposure period), while cancer and chronic risk from DPM are typically associated with long-term exposure. Thus, the project would not result in a long-term source of TAC emissions.

Health Effects of Criteria Air Pollutants

As described above, construction and operation of the proposed project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

The SCAB is designated as nonattainment for O₃ for the NAAQS and CAAQS. Thus, existing O₃ levels in the SCAB are at unhealthy levels during certain periods. Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2021). The contribution of VOCs and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SCAB due to O₃ precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O₃ NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O₃ precursors is speculative. Because the proposed project would not involve activities that would result in O₃ precursor emissions (i.e., VOCs or NO_x) that would exceed the SCAQMD thresholds, as shown in Tables 3.3-2 through 3.3-4, the proposed project is not anticipated to substantially contribute to regional O₃ concentrations and its associated health impacts during construction or operation.

In addition to O₃, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for NO₂. Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2021). As shown in Tables 3.3-2 through 3.3-4, proposed project construction and operations would not exceed the SCAQMD NO_x threshold, and existing ambient NO₂ concentrations would be below the NAAQS and CAAQS. Thus, the proposed project is not expected to result in exceedances of the NO₂ standards or contribute to associated health effects.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2021). CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM₁₀ under the CAAQS and nonattainment for PM_{2.5} under the NAAQS and CAAQS. Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2021). As with O₃ and NO_x, and as shown in Tables 3.3-2 through 3.3-4, the proposed project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAQMD's thresholds. Accordingly, the proposed project's PM₁₀ and PM_{2.5} emissions are not expected to cause an increase in related regional health effects for this pollutant.

In summary, the proposed project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health effects associated with those pollutants. Therefore, impacts would be less than significant.

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. The evaluation of other emissions is focused on the potential for the project to generate odors. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source, the wind speeds and direction, and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The project entails operation of a multifamily development, which is not a land use that is associated with the creation of unwanted odors. Therefore, project operations would result in an odor impact that is less than significant.

3.4 Biological Resources

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

This section describes the existing biological resources of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the project. As part of the analysis, this section describes the potentially adverse impacts to special-status biological resources as identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), resulting from implementation of the project. This biological assessment includes the approximately 18.7-acre project site (Assessor's Parcel Number 392-320-014) and immediate vicinity.

The information and analysis contained in this section are based on a comprehensive literature and data review; focused species surveys for burrowing owl (*Athene cunicularia*) (Principe and Associates 2021a), least Bell's vireo (*Vireo bellii pusillus*) (Principe and Associates 2021b), and narrow endemic plants (Principe and Associates 2021c); jurisdictional delineation (Wood Environment & Infrastructure Solutions, Inc. 2021a); and a consistency analysis with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (Wood Environment & Infrastructure Solutions, Inc. 2021b).

For this analysis, special-status biological resources are defined as follows:

- **Special-status plant species include**
 - Species designated as either rare, threatened, or endangered by CDFW or USFWS and are protected under either California Endangered Species Act (CESA) (CFCG 2050 et seq.) or Federal Endangered Species Act (FESA) (16 USC 1531 et seq.)
 - Species that are candidate species being considered or proposed for listing under CESA or FESA
 - Species that are included on the CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2021a) or species with a California Rare Plant Rank (CRPR) of 1 or 2 in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2021)
 - "Covered species" identified in the Western Riverside County MSHCP (County of Riverside 2003)
- **Special-status wildlife species include**
 - Species designated as either rare, threatened, or endangered by the CDFW or USFWS and are protected under either CESA (CFCG Section 2050 et seq.) or FESA (16 USC 1531 et seq.)
 - Species that are candidate species being considered or proposed for listing under CESA or FESA
 - Species that are included on the CDFW Special Animals List (CDFW 2021b)
 - "Covered species" identified in the Western Riverside County MSHCP
- **Special-status vegetation communities include** (1) those designated as sensitive by CDFW and assigned state ranks of S1-S3 based on their rarity and threats, (2) those that provide habitat for special-status species, or (3) riparian/riverine and vernal pools as defined within the Western Riverside County MSHCP.

"Listed species" refer to species that fall into category 1 or 2 from the above definition. They are listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act or the California Endangered Species Act. "Non-listed species" refer to all other categories of special-status species from the above definition.

Western Riverside County MSHCP

The Multi-Species Habitat Conservation Plan (MSHCP) was established in March of 2004. The plan encompasses 1.26 million acres in the western Riverside County and is designated to protect 146 species. The proposed project is not in a criteria cell under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), but it would require a consistency analysis with the MSHCP (Wood Environment & Infrastructure Solutions, Inc. 2021b).

Literature Review

The CDFW California Natural Diversity Database (CNDDB) (CDFW 2021c), the CNPS Inventory of Rare and Endangered Plants (CNPS 2021), and the USFWS Information for Planning and Conservation occurrence data (USFWS 2021a) were reviewed to identify special-status biological resources that are known to occur in the region.

The CNDDDB and CNPS databases were searched based on the U.S. Geological Survey 7.5-minute topographic quadrangle map for Murrieta, where the project site is located, as well as the surrounding eight U.S. Geological Survey 7.5-minute quadrangle maps (i.e., Bachelor Mountain, Fallbrook, Lake Elsinore, Pechanga, Romoland, Temecula, Wildomar, and Winchester). Results of the CNDDDB, CNPS, and Information for Planning and Conservation database searches are included as Appendix B-1 of this document. In addition, potential and/or historic drainages and aquatic features were investigated based on a review of U.S. Geological Survey topographic maps (1:24,000 scale), aerial photographs, the National Wetland Inventory database (USFWS 2021b), and the Natural Resource Conservation Service Web Soil Survey (USDA 2021).

Field Investigations

Focused surveys and assessments to determine the presence or absence of special-status biological resources were conducted on the project site in 2021. Protocol surveys for the least Bell's vireo surveys following the Least Bell's Vireo Survey Guidelines (USFWS 2001) were conducted on eight separate days from April 25 through July 15, 2021 (Principe and Associates 2021a). A habitat assessment and nesting season survey for burrowing owls following the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (County of Riverside 2006) was conducted on five separate days between March 11, 2021, and March 28, 2021. A formal jurisdictional delineation of wetlands and waters regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW following the methods outlined in Wetlands Delineation Manual (USACE 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008b), and A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008a) was conducted on March 29, 2021. Focused botanical surveys in accordance with the standardized guidelines issued by the regulatory agencies (USFWS 1996; CDFG 2000; CNPS 2001) were conducted on five separate days between April 26, 2021, and August 4, 2021. Based on the location of the project site within the Roughstep 6 (HMU – Menifee) Narrow Endemic Survey Area, the following species were the focus of the effort: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Vegetation community and land cover mapping was based on the Habitat Accounts described in Volume 2 of the MSHCP (County of Riverside 2003). During all surveys, biologists recorded all species encountered, including all incidental observations of special-status plants and wildlife. All plant species encountered during the field surveys were identified to subspecies or variety, if possible. Latin and common names for plant species with a CRPR follow the CNPS Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2021). For plant species without a CRPR, names follow The Vascular Plants of Western Riverside County, California, An Annotated Checklist (Roberts et. al. 2004). Wildlife surveys were conducted by qualified biologists using field methods appropriate to the target taxon. Latin and common names for vertebrate species referred to in this report follow Crother (2012) for amphibians and reptiles, Wilson and Reeder (2005) for mammals, and the Field Guide to Birds of North America (National Geographic Society 2002) for birds.

Cumulative lists of plant and wildlife species observed during field surveys are included in Appendix B-2 (Species Compendiums). Appendix B-3 (Potential to Occur Analyses) summarizes the results of the potential for special-status plant and wildlife species to occur within the project site. The focused survey reports and MSHCP consistency analysis for the project are provided in Appendix B-4 (Rare Plant Survey Report), Appendix B-5 (Burrowing Owl Report), Appendix B-6 (Least Bell's Vireo Report), Appendix B-7 (MSHCP Consistency Analysis), and Appendix B-8 (Jurisdictional Delineation Report). Representative photographs of the project site collected during the field surveys are provided within attachments to the focused survey reports.

Vegetation Communities and Plants

The project site supports four vegetation communities and land covers: coastal sage-chaparral scrub, non-native grasslands, riparian forest, and mulefat scrub (see Biological Resources Map in Appendix B-4), and Table 3.4-1 summarizes the extent of vegetation communities and land covers within the project site. Descriptions of these vegetation communities and land covers are summarized in the following discussion.

Table 3.4-1. Vegetation Communities and Land Covers within the Project Site

Vegetation Community or Land Cover	Project Site (acres)
coastal sage-chaparral scrub	1.07
non-native grasslands	16.39
riparian forest	1.18
mulefat scrub	0.04
Total*	18.68

Note:

* Acreages may not total due to rounding

Coastal sage–chaparral scrub is a diverse mosaic of woody sclerophyllous (hard-leaved plants) chaparral species and drought-deciduous *malacophyllous* (fleshy-leaved plants) sage scrub species adapted to arid climates. This community is typically dominated by interior California buckwheat (*Eriogonum fasciculatum* sub sp. *foliolosum*). Other abundant sage scrub species include coastal sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), thick-leaved lilac (*Ceanothus crassifolius* var. *crassifolius*), and chamise (*Adenostoma fasciculatum*). On the project site, this vegetation community is disturbed and confined to boulder and rock outcrops, and the manufactured slope along Whitewood Road. Isolated pockets of native shrubs mixed with landscaping materials are scattered around the project site.

Non-native grasslands include areas dominated by brome grasses (*Bromus diandrus*, *B. hordeaceus*, and *B. madritensis* subsp. *rubens*). Other abundant ground-covering grasslands species include totalote (*Centaurea melitensis*), paniculate tarplant (*Deinandra paniculata*), common fiddleneck (*Amsinckia menziesii* var. *intermedia*), shortpod mustard (*Brassica geniculata*), and annual bluegrass (*Poa annua*). This vegetation community encompasses a majority of the project site and supports some spring annuals and wildflowers.

Riparian forest include areas along perennial and intermittent streams that are dominated by species such as big-leaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), white alder (*Alnus rhombifolia*), California bay (*Umbellularia californica*), sycamore (*Platanus racemosa*), Fremont’s cottonwood (*Populus fremontii*), California walnut (*Juglans californica*), willows (*Salix* sp.), Mexican elderberry (*Sambucus mexicana*), wild grape (*Vitis girdiana*) and poison-oak (*Toxicodendron diversilobum*). On the project site, this vegetation community is associated with the drainage that bisects the property and characterized by a mix of mature black willow (*Salix gooddingii*), red willow (*Salix laevigata*), western cottonwood (*Populus fremontii* subsp. *fremontii*), and coast live oak trees. The understory is a rather dense tangle of riparian and upland species. Although the habitat is not dense, it shows a moderate variability in patch size and bush height.

Mulefat scrub include areas that are dominated by mulefat (*Baccharis salicifolia*) in the shrub canopy. Species associated with this vegetation community can include willows (*Salix* sp.), sedges (*Carex* sp.), stinging nettle (*Urtica dioica*), California sagebrush, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), laurel sumac (*Malosma laurina*), tree tobacco (*Nicotiana glauca*), Mexican elderberry, and tamarisk (*Tamarix* sp.). This vegetation

community commonly has a sparse herbaceous layer. On the project site, this vegetation community characterizes a small portion of the drainage near the eastern property boundary.

Wildlife

Several wildlife species were observed or detected during the 2021 surveys of the project site, which included common species typically associated with urban developments. Bird species detected included Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), and white-crowned sparrow (*Zonotrichia leucophrys*). No active bird nests were detected within the project site. Other wildlife species detected included coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), western fence lizard (*Sceloporus occidentalis*), and common side-blotched lizard (*Uta stansburiana*).

Jurisdictional Waters

One jurisdictional drainage bisects the project site. This feature supports a riparian vegetation community, which included willows, coast live oak, cottonwoods, and mulefat. The riparian area has a tributary, or side arm, connected to the southern culvert underneath Whitewood Road, but it does not contain any bed and bank or OHWM connecting to the main channel. Areas regulated by the USACE and RWQCB as jurisdictional waters of the U.S. were limited to the main channel of the drainage since the tributary side arm lacked a defined bed and bank or OHWM. However, both the main channel and side arm are regulated by the CDFW as jurisdictional waters of the state (streambed). Figure 5 within Appendix B-8 illustrates the location and jurisdictional extent of these features. Vegetation within the USACE/RWQCB jurisdictional areas was very sparse under the canopy of the riparian with some patches of poison oak and giant wild rye (*Leymus condensatus*) and algal growth on the mud surface in other areas. The project has been designed to avoid jurisdictional waters.

- 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 Game or U.S. Fish and Wildlife Service?**

Less-than-Significant Impact with Mitigation Incorporated. The proposed impact area generally lacks suitable habitat for most special-status species known from the surrounding region due to a combination of unsuitable habitat conditions and the high level of human activity in the area. A total of 0.02 acres of temporary impacts (non-native grassland) and 15.94 acres of permanent impacts (coastal sage-chaparral scrub, non-native grassland, and riparian forest) would occur during construction-related ground disturbance associated with project implementation (Figure 5, Biological Resource Impacts). Several special-status plant and wildlife species have a low potential to occur within the project site, as discussed in the following subsection.

Special-Status Plants

Based on the results of the literature review and database searches, a total of 57 special-status plant species were identified as occurring within the region. Due to current site conditions, including soils, vegetation communities (habitat), elevation ranges, and current disturbance levels, all of these species are either not expected, or have a low potential to occur within the project site. The following seven special-status plant species were initially determined to have a low potential to occur: Munz's onion (*Allium munzii*),

smooth tarplant (*Centromadia pungens* ssp. *laevis*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), intermediate Mariposa lily (*Calochortus weedii* var. *intermedius*), many-stemmed dudleya (*Dudleya multicaulis*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), and chaparral ragwort (*Senecio aphanactis*). A list and determination of potential to occur for these species can be found in Appendix B-3.

No plant species listed or proposed for listing as rare, threatened, or endangered by CDFW or USFWS were detected within the project site during focused rare plant surveys conducted in the spring of 2021, or during other field surveys conducted in 2021. However, one special-status plant was detected on the project site: long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*) (CRPR 1B.2; MSHCP Covered). A small population of 391 individuals was mapped with a remnant stand of coastal sage-chaparral scrub (see Long-Spined Spineflower Map in Appendix B-4). This species is a covered species under the MSHCP and designated as a Group 2 species because of its wide distribution within specific soil restrictions, and the presence of two core locations. Conservation for the long-spined spineflower has been achieved by inclusion of at least 389,510 acres of suitable Conserved Habitat and at least 57 known occurrences at 15 locations in the MSHCP Conservation Area.

The potential for other special-status plant species to occur within the project site has been reduced over the years due to vegetation removal by heavy equipment and are not expected. Large portions of native sage-scrub vegetation have been removed from the project succeeded by invasive, non-native species. These non-native species now form a relatively continuous and dense cover in those areas. Also, the clay soils present in the northern portion of the project site have been disturbed by grading and road construction.

Direct Impacts

The small population of long-spined spineflower identified at the project site would be directly impacted during implementation of the project. These plants are not located within an area with a large block of conserved habitat, within one of the two core locations for this species at Lake Matthews and in the Agua Tibia Mountains, or within a linkage of habitat conservation between Core Areas (Principe & Associates 2021). General avoidance and minimization measures as outlined in the MSHCP will be implemented, which include steps to contain construction activities within the designated limits and prevent debris and toxins from spilling into the neighboring buffer area. No additional compensatory mitigation is required for this species. Regardless, these MSHCP commitments have been incorporated as PDFs in Section 2.3.

No other special-status plant species were detected or have a moderate to high potential to occur within the project site. As a result, no direct impacts resulting from implementation of the project would occur to any other special-status plant species.

Indirect Impacts

Seven special-status plant species identified above have low potential to occur immediately east of the project site. General avoidance and minimization as outlined in the MSHCP will be implemented, which include steps to contain construction activities within the designated limits and prevent debris and toxins from spilling into the neighboring buffer area. As a result, no indirect impacts resulting from implementation of the project would occur to special-status plant species. Regardless, these MSHCP commitments have been incorporated as PDFs within Section 2.3.

Special-Status Wildlife

Based on the results of the literature review and database searches, a total of 45 special-status wildlife species were identified as occurring within the region. Due to current site conditions, including vegetation communities (habitat), elevation ranges, and current disturbance levels, all of these species are either not expected or have a low potential to occur within the project site.

Three federally listed threatened species have a low potential to occur within the project site: coastal California gnatcatcher, least Bell's vireo, and Stephens' kangaroo rat.

Coastal California Gnatcatcher

The coastal California gnatcatcher habitat assessment determined that marginally suitable habitat is present on project site. Additionally, this species was not detected during surveys conducted in 2021.

Least Bell's Vireo

The least Bell's vireo habitat assessment determined that marginally suitable habitat is present on project site, but not within a 500-foot buffer zone surrounding the project site. No least Bell's vireo were detected during the focused surveys.

Stephen's Kangaroo Rat

The Stephen's kangaroo rat habitat assessment determined that marginally suitable habitat is present on project site. However, the project site is within the Stephen's Kangaroo Rat habitat conservation plan boundary and requires payment of the Stephen's Kangaroo Rat Habitat Conservation Plan Development Mitigation Fee (RCHCA 1996).

Other special-status wildlife species initially determined to have a low potential to occur include: five reptiles (San Diegan tiger whiptail, San Diego banded gecko, red diamondback rattlesnake, Blainville's horned lizard, and coast patch-nosed snake), two birds (burrowing owl and loggerhead shrike), and seven mammals (pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat, southern grasshopper mouse, and Los Angeles pocket mouse).

The project site is within an MSHCP burrowing owl survey area and supports habitat suitable for burrowing owl. A focused survey was conducted for burrowing owl and no burrowing owls were detected during the focused surveys.

A list and determination of potential to occur for these species can be found in Appendix B-3.

Direct Impacts

No special-status wildlife species were detected within the project site during general and focused wildlife surveys conducted in the spring of 2021. As a result, no direct impacts resulting from implementation of the project would occur to special-status wildlife. Although project implementation would not result in significant impacts to the burrowing owl, MSHCP guidelines require preconstruction presence/absence surveys for burrowing owls within the survey area where suitable habitat is present. This includes conducting a single

preconstruction survey within 30 days prior to disturbance and avoidance measures implemented if burrowing owl are present. This MSHCP commitment has been incorporated as a PDF within Section 2.3.

Indirect Impacts

Seventeen special-status wildlife species identified above have low potential to occur immediately east of the project site. General avoidance and minimization as outlined in the MSHCP will be implemented, which include steps to contain construction activities within the designated limits and prevent debris and toxins from spilling into the neighboring buffer area. As a result, no indirect impacts resulting from implementation of the project would occur to special-status plant species. Regardless, these MSHCP commitments have been incorporated as PDFs within Section 2.3.

Nesting Birds

Direct Impacts

Project construction could result in direct impacts to nesting birds, including the loss of nests, eggs, and fledglings if vegetation clearing and ground-disturbing activities occur during the avian nesting season (typically March 1 through August 31). If the nesting bird season cannot be avoided, a nesting bird survey should be conducted and avoidance measures implemented if nests are documented within the project site or within 300 feet of the project site (MM-BIO-1). Implementation of MM-BIO-1 would reduce potential direct and indirect impacts to less than significant.

Indirect Impacts

Project construction may also result in indirect impacts to nesting birds as a result of construction noise if construction activities occur during the avian breeding season. If the nesting bird season cannot be avoided, a nesting bird survey should be conducted and avoidance measures implemented if nests are documented within the project site or within 300 feet of the project site (MM-BIO-1). Implementation of MM-BIO-1 would reduce potential direct and indirect impacts to less than significant.

MM-BIO-1 To maintain compliance with the Migratory Bird Treaty Act and California Fish and Game Code, if ground disturbance and/or vegetation clearance activities are scheduled to occur during the avian nesting season, a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project site and a 300-foot buffer around the project site. Surveys shall be conducted within three days prior to initiation of activity and be conducted between dawn and noon.

If an active nest is detected during the nesting bird survey, avoidance buffers shall be implemented as determined by a qualified biologist. The buffer shall be of a distance to ensure avoidance of adverse effects to the nesting bird by accounting for topography, ambient conditions, species, nest location, and activity type. All nests shall be monitored as determined by the qualified biologist until nestlings have fledged and dispersed, or it is confirmed that the nest has been unsuccessful or abandoned.

- 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 Game or U.S. Fish and Wildlife Service?*

Less-than-Significant Impact.

Direct Impacts

Construction of the project would result in direct permanent impacts and direct temporary impacts primarily to disturbed and non-native plant communities and land covers. The project has been designed to avoid the natural vegetation communities present within the central portion of the property, including the riparian forest. However, a small area of this natural community located within the western portion of the project site would be temporarily impacted during construction of the buildings. A total of 0.02 acres of impacts to CDFW jurisdictional non-wetland waters of the state would be impacted during construction-related ground disturbance along the eastern project boundary.

Indirect Impacts

Indirect impacts during construction activities could include edge effects from dust generation, which could disrupt plant vitality in the short term, or construction-related soil erosion and water runoff. However, these effects would be less than significant with implementation of standard construction best management practices, including those identified in Appendix C of the MSHCP, Volume I (County of Riverside 2003) that would be implemented during project construction. These best management practices would be noted on the construction plans and include:

- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats.
- Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel.

As a result, direct and indirect impacts to the low quality riparian forest community on the project site would be less than significant and no mitigation is required.

- c) ***Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Less-than-Significant Impact with Mitigation Incorporated.

Direct Impacts

No state or federally protected wetlands occur within the project site; however, non-wetland waters of the United States/state under the jurisdiction of USACE, RWQCB, and CDFW occur within the project site. Therefore, the proposed project would not have a substantial adverse effect on jurisdictional wetlands but could have a substantial adverse effect on jurisdictional non-wetland waters during construction that would result in both temporary and permanent impacts.

Construction of the project could have direct permanent effects to jurisdictional non-wetland waters of the state. A total of 0.02 acres of impacts to non-wetland, waters of the state regulated by the CDFW may be impacted along the eastern project boundary during construction-related ground disturbance. While the project has been designed to avoid direct impacts in this location through construction of a retaining wall, impacts may occur during construction in order to build the retaining wall. The direct impact of the project on jurisdictional non-wetland waters due to construction would be potentially significant (BI-4).

Potentially significant direct impacts to CDFW jurisdictional non-wetland waters of the state due to construction would be mitigated to less than significant through implementation of MM-BIO-2 requiring on-site rehabilitation. This mitigation measure would overlap with the mitigation measures taken to address impacts to special-status species.

MM-BIO-2 **Compensate for Impacts to Jurisdictional Non-Wetland Waters.** Direct permanent impacts to 0.02 acres of CDFW jurisdictional non-wetland waters of the state shall be mitigated on the project site. On-site measures shall include enhancement of existing riparian within jurisdictional limits at a 1:1 mitigation ratio. A conceptual Habitat Mitigation and Monitoring Plan shall be prepared for the enhancement activities to address impacts to jurisdictional non-wetland waters, which may include non-native species removal and revegetation followed by periodic monitoring. The plan shall specify the criteria and standards by which the enhancement actions will compensate for impacts of the project on jurisdictional non-wetland waters. Direct permanent impacts to CDFW jurisdictional non-wetlands waters shall be addressed through Section 1602 of the California Fish and Game Code.

Indirect Impacts

Short-term and long-term indirect impacts to jurisdictional non-wetland waters relating to construction activities (edge effects) and trash/pollution would be less than significant with implementation of standard construction best management practices, including those identified in Appendix C of the MSHCP, Volume I (County of Riverside 2003) that would be implemented during project construction.

- 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. The project site is bounded to the west by Whitewood Road, to the north by Lee Lane, to the south by Greenberg Place, and to the east by rural residential and Epple Street. Interstate 215 occurs approximately 2,500 feet to the west of the project site. The project site is surrounded by a mix of rural and urban residential development. The riparian vegetation associated with the drainage in the central portion of the project site is disturbed by brush clearing and homeless encampment activities. Further, the project site is not located within an MSHCP-designated core or linkage area. However, Criteria Cells 5669 and 5673 occur approximately 1,300 feet to the south. Areas targeted for conservation within the MSHCP are not adjacent to the project site, and the proposed project is not anticipated to significantly affect wildlife movement within the conservation areas. Although some adjacent areas are undeveloped and support open fields may allow wildlife movement in the area, movement of medium and large wildlife through the region is limited.

The project site does not function as a wildlife corridor and does not support any wildlife nursery sites. As a result, implementation of the proposed project would result in less than significant impacts to wildlife movement or use of native wildlife nursery sites.

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

Less-than-Significant Impact with Mitigation Incorporated. Several elements within the City of Murrieta General Plan were established to address potential impacts to biological resources. Specifically, the Land Use, Conservation, and Recreation and Open Space Elements each have goals and policies that address potential impacts to candidate, sensitive, or special-status species and their habitats. As none of these species or habitats are present on the site, no further action is required.

The City of Murrieta Development Code, Article III, Section 16.42, Tree Preservation, identifies the following as protected trees:

- Native oak with a diameter at standard height of four inches or greater (smaller trees may also be protected under special circumstances as determined by the director).
- Trees of historical or cultural significance as identified by council resolution.
- Significant groves or stands of trees.
- Mature trees located on a parcel of one acre or more (smaller trees may also be protected under special circumstances as determined by the director).
- Any tree required to be planted or preserved as environmental mitigation for a discretionary permit.

A total of 61 protected trees occur on the project site that meet the City's tree preservation criteria (Municipal Code Section 16.42, Tree Preservation; Dudek 2021). The proposed construction includes the removal of three trees that occur on the project site. Therefore, implementation of the proposed project would result in significant impacts, and mitigation would be required (MM-BIO-3). Impacts are considered to be less than significant with mitigation incorporated.

MM-BIO-3 **Compensate for Impacts to Protected Trees.** The project applicant shall mitigate for the removal of three protected trees in accordance with the City Municipal Code Section 16.42 Tree Preservation, as described below. All three protected tree removals shall be replaced at a 1:1 ratio with an "approved" species as determined by the City's Planning Department. The City's planning director shall inspect the premises and designate the trees to be removed. The project applicant shall be responsible for obtaining a tree removal permit prior to removal of any Protected Tree on the project site. In addition, tree replacement selection should be at least 24-inch box and purchased from quality nursery stock. Additional measures to mitigate the loss of three protected trees include the following, or as otherwise determined by the City of Murrieta:

- Plant drought-tolerant native, ornamental and shade trees within common landscape areas (e.g., parks, medians, and entry monuments, manufactured slopes).
- A landscape plan should be developed by a licensed landscape architect and should identify tree planting locations, nursery stock condition requirements, planting densities, species composition, planting techniques, maintenance standards, tree protection standards, tree survival criteria, monitoring protocols, and reporting standards. Monitoring should be conducted for a period of no less than five years and monitoring reports documenting mitigation program success provided to the City annually and at the end of the mitigation period.
- A restoration planting, monitoring, and reporting plan should be developed by a qualified arborist, biologist, or restoration ecologist and should identify tree/acorn planting locations, seed/seedling sources, seedling condition requirements, planting densities, species composition, planting techniques, maintenance standards, tree protection standards, tree survival criteria, monitoring protocols, and reporting standards. Monitoring should be conducted for a period of no less than five years and monitoring reports documenting mitigation program success provided to the City annually and at the end of the mitigation period.
- These Provide documentation to the City of Murrieta that the appraised value of removed trees presented herein has been expended on tree planting, maintenance, and monitoring efforts on site.

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?*

Less-than-Significant Impact with Mitigation Incorporated. The project site is located within the MSHCP plan area (County of Riverside 2003). The City of Murrieta is a permittee to the MSHCP and required to ensure proposed projects are in compliance with the MSHCP. The project site is located within the Southwest Area Plan, which has three conservation areas: Proposed Core 2, Proposed Constrained Linkage 16, and Criteria Cell Group Y. The project site is not within these conservation areas and does not overlap any criteria cells. Chapter 6 of the MSHCP outlines additional implementation measures with which permittees must comply.

As presented in the project's MSHCP Consistency Analysis (Wood & Associates 2021) (Appendix B-7), the project site does not support vernal pools or fairy shrimp habitat, or Criteria Area species habitat; therefore, there are no requirements under the MSHCP for these resources. The project site supports riparian areas,

and potential habitat for burrowing owl and narrow endemic plant species. The project site is also not adjacent to conservation areas. However, the riparian area within the central portion of the project site will continue to connect to downstream resources available for conservation. Therefore, the Urban/Wildlife Interface Guidelines are applicable. The relevant sections of the MSHCP and compliance with each section is summarized in Table 3.4-2.

Table 3.4-2. Habitat Conservation Plan Consistency Analysis Summary

Policy	Discussion	Consistency
MSHCP Section 6.1.2 Riparian/Riverine, Vernal Pool and Fairy Shrimp Requirements	<p><i>Riparian/Riverine Resources</i></p> <ul style="list-style-type: none"> ▪ The project site contains an unnamed drainage and its tributary that support MSHCP-defined riparian (riparian scrub woodland)/riverine (non-vegetated streambed) areas. These features appear to be part of the Warm Springs Creek network of tributaries and may support discontinuous surface water flows through unconserved lands located south of the project site within Criteria Cell 5576 and conserved lands within Criteria Cell 5569. ▪ The project has been designed to avoid and ensure the long-term conservation of the riparian/riverine habitat (and their associated functions and values) through the use of deed restrictions or conservation easements. <p><i>Vernal Pool and Fairy Shrimp Habitat</i></p> <ul style="list-style-type: none"> ▪ The project site does not contain evidence of vernal pools. Soils mapped in the region are well-drained and are not known to retain ponded water. In addition, no vernal pool indicator plant species were identified within the area. 	Consistent
MSHCP Section 6.1.3 Narrow Endemic Plant Species Survey Requirements	A majority of the project site is located within the Narrow Endemic Plant Species Survey Area for the following species: California Orcutt grass, many stemmed dudleya, Munz's onion, San Diego Ambrosia, spreading navarretia, and Wright's trichocoronis. A focused narrow endemic plant species survey was conducted in the spring of 2021 during the appropriate timeframe to detect these species. However, none of the narrow endemic plant species were detected (Appendix B-4).	Consistent
MSHCP Section 6.1.4 Urban/Wildlands Interface Guidelines	The project site is not within or adjacent to MSHCP-designated conservation areas. The riparian area within the central portion of the project site will be preserved and continue to connect to downstream resources available for conservation. Therefore, several of the Urban/Wildlife Interface Guidelines related to drainage, toxicants, and invasive species are applicable. The bio-filtration systems included as project design features will meet the drainage and toxicant requirements. To prevent the spread of invasive species, PDF-5 would be required. Guidelines related to noise and lighting are not applicable because the project site is not adjacent to a conservation area.	Consistent

Table 3.4-2. Habitat Conservation Plan Consistency Analysis Summary

Policy	Discussion	Consistency
MSHCP Section 6.3.2 Criteria Area Species Survey Requirements	The project site is in a required habitat assessment area for burrowing owl. The habitat assessment identified potential burrowing owl habitat and focused surveys were conducted. However, no burrowing owls or signs of occupancy were detected on the project site. Site conditions can change prior to development, creating suitable habitat for burrowing owl. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site (PDF-6).	Consistent with mitigation incorporated
MSHCP Development Mitigation Fee	The project site is within the Western Riverside MSHCP boundary. With payment of the MSHCP Development Mitigation Fee, the proposed project would be consistent with the Western Riverside MSHCP.	Consistent with payment of mitigation fee

In summary, although burrowing owls were not detected on the project site during focused protocol surveys, they have at least a moderate potential to occur in the future. With implementation of burrowing owl pre-construction surveys and avoidance and minimization measures, if applicable, the project would be consistent with the MSHCP burrowing owl requirements. With implementation of PDF-5, General Avoidance and Minimization Measures; PDF-6, Burrowing Owl Pre-construction Surveys; and payment of the MSHCP Development Mitigation Fee, the proposed project would be consistent with the MSHCP.

3.5 Cultural Resources

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

The following analysis is based, in part, on Cultural Resources Technical Report prepared by Dudek in November 2022 included as Appendix C. This section describes the research conducted in support of the analysis including California Historic Resources Information System (CHRIS) records search, review of literature and archival resources (historic maps, aerial photographs, topographic maps), pedestrian survey and subsurface testing.

CHRIS Records Search

The CHRIS search included digitized collections of mapped prehistoric and historic archaeological resources and historic built-environment resources; Department of Parks and Recreation site records; technical reports; archival resources; and ethnographic references. Dudek reviewed the available EIC records to determine whether the implementation of the proposed Project would have the potential to impact any known and unknown cultural resources. The confidential records search results are provided in Confidential Appendix C.

Previously Conducted Cultural Resources Studies

Results of the cultural resources records search indicate that 100 previous cultural resource studies have been conducted within 1 mile of the proposed Project site between 1977 and 2019. Of these, four (4) studies, RI-04702, RI-05692, RI-06659, and RI-10614, are mapped as overlapping the proposed Project site. Following is a brief summary of the overlapping reports.

RI- 04702. *Historical/ Archaeological Resources Survey Report, Tentative Tract No. 31998, City of Murrieta, Riverside County, California* (Hogan, et al. 2004a) documents the results of an archaeological study conducted on behalf of the Rancon Group, consisting of background research, a record search, and a pedestrian survey. The area of study overlaps the entirety of the current proposed Project site. As a result of the study, three (3) bedrock milling features with several grinding slicks were recorded within the current proposed Project site, as well as a granitic bifacial mano (isolate). According to the report, the site had not been subject to subsurface testing or evaluation; therefore, the site boundaries were based on surface discovery alone and significance of the site had not been determined at the time of the reporting. An archaeological testing and evaluation program was recommended by the authors to determine the significance of the three (3) sites.

RI-05692. *Archaeological Testing and Evaluation Report for Sites CA-RIV-7424, 7425, and 7526, Tentative Tract No., in the City of Murrieta, Riverside County, California* (Hogan et al. 2004b) documents the results of an archaeological testing and evaluation program conducted on behalf of the Rancon Group. The area of study overlaps the entirety of the current proposed Project site. The study consists of a re-survey, systematic surface collection, and the excavation of seven (7) shovel test pits and three (3) excavation units to assess the significance of sites CA-RIV-7424, CA-RIV-7425 and CA-RIV-7426. The sites were described as bedrock milling features with slicks. No subsurface testing took place at CA-RIV-7426 because the site had been destroyed. Two (2) isolates, one (1) a previously recorded mano fragment and one (1) newly discovered metate fragment, were collected from the surface but no subsurface remains were found. Shovel test pits were excavated to a depth of 10 to 40 centimeters (cm), and excavations units to a depth of 10 to 30 cm below surface, depending on the depth of bedrock encountered. All subsurface testing was sterile. The authors recommended that the City of Murrieta reach a finding of “No Impact” regarding cultural resources. The report recommended archaeological monitoring if any subsurface cultural material is encountered during construction.

RI-06659. *Archaeological Survey Report: Linnel Lane Overcrossing at I-215 and Meadowlark Lane Improvement, City of Murrieta, Riverside County, California, 08-RIV-215-PM 13.0-KP 20.9, EA OH820* (Hogan et al. 2006), documents the results of an archaeological inventory report conducted on behalf of Caltrans, consisting of a pedestrian survey, archival record search, and Native American consultation. The area of study overlaps less than 5 percent of the current proposed Project site in the northwestern corner. No new or previously identified cultural resources were encountered as a result of this study. However, the authors state that if any cultural materials are unearthed as a result of construction, work shall be halted and a qualified archaeologist will assess the finding’s significance.

RI-10614. *Historical Resources Evaluation Report, Linnel Lane Overcrossing at I-215 and Meadowlark Lane Improvement City of Murrieta, Riverside County, California* (Tang and Smallwood 2006), documents the results of a historical resources evaluation report conducted on behalf of Caltrans, consisting of archival record search, background research, and field inspection and focuses on built environment resources. The area of study overlaps less than 5 percent of the current proposed Project site in the northwestern corner. As a result of this study, two (2) historic built environment resources were identified, neither of which is within nor adjacent to the current proposed Project site. No archaeological resources were identified within the current proposed Project site as a result of this study.

Previously Recorded Cultural Resources

The EIC records indicate that fifty-four (54) previously recorded cultural resources are located within the records search area. These resources consist of twenty-nine (29) prehistoric sites, eleven (11) prehistoric isolates, six (6) historic-period archaeological sites, one (1) historic-period isolate, four (4) multi-component sites consisting of both historic-period and prehistoric resources, and three (3) historic built environment resources. Five (5) of the identified resources, P-33-013332, P-33-013333, P-33-013334, P-33-013363 and P-33-014358, overlap the proposed Project site and consist of prehistoric archaeological resources. Below is a summary of the five (5) resources identified within the proposed Project site.

P-33-013332/CA-RIV-7424. A prehistoric site measuring approximately 1.4 m by 1.4 m (5 ft by 5 ft) in size at an elevation of 1500 ft above mean sea level (amsl) and is located within the proposed Project site. P-33-013332/CA-RIV-7424 is documented as a bedrock milling feature with one grinding slick, located on a granitic boulder. It was originally formally recorded in 2004 by Robert Porter. The site record for P-33-013332/CA-RIV-7424 was updated by John Eddy in 2004 to include the results of subsurface testing. One shovel test pit and one test unit were excavated; both were negative for artifacts. The record notes that there is no potential for subsurface deposits. The testing and evaluation program determined that site P-33-013332/CA-RIV-7424 does not fit the criteria of a historical resource under CEQA.

P-33-013333/CA-RIV-7425. A prehistoric site measuring approximately 24 m by 7 m (79 ft by 23 ft) in size at an elevation of 1500 ft amsl and is located within the proposed Project site. P-33-013333/CA-RIV-7425 is documented as two (2) bedrock milling features with five (5) grinding slicks, located on granitic boulders. It was originally formally recorded in 2004 by Robert Porter. The site record for P-33-013333/CA-RIV-7425 was updated in 2004 by John Eddy with the results of subsurface testing. Six (6) shovel test pits and two (2) test units were excavated; all were negative for artifacts. The record notes that there is no potential for subsurface deposits. The testing and evaluation program determined that site P-33-013333/CA-RIV-7425 does not fit the criteria of a historical resource under CEQA.

P-33-013334/CA-RIV-7426. A prehistoric site measuring approximately 3.1 m by 1.8 m (10 ft by 6 ft) in size at an elevation of 1500 ft amsl and is located within the proposed Project site. P-33-013334/CA-RIV-7426 is documented as a bedrock milling feature with two (2) grinding slicks, located on a granitic boulder. The resource was originally formally recorded in 2004 by Robert Porter. P-33-013334/CA-RIV-7426 was revisited in 2004 by CRM TECH staff who were unable to relocate the site and concluded it had been destroyed by the construction of Meadowlark Lane. The record states that no further action is required for resource P-33-013334/CA-RIV-7426 as it has been assumed destroyed.

P-33-013363. A prehistoric isolate at an elevation of 1480 ft amsl and is located within the proposed Project site. P-33-013363 is documented as a single granitic biface mano. The resource was originally formally recorded in

2004 by Robert Porter. As is standard practice for artifact isolates, no subsurface testing or evaluation was conducted. Furthermore, an artifact isolate does not fit the criteria of a historical resource under CEQA. The resource was collected in 2004.

P-33-014358. A prehistoric isolate located within the proposed Project site located at an elevation of 1480 ft amsl. P-33-014358 is documented as a single metate fragment. The resource was originally formally recorded in 2004 by John Eddy. As is standard practice for artifact isolates, no subsurface testing or evaluation was conducted. Furthermore, an artifact isolate does not fit the criteria of a historical resource under CEQA. The resource was collected in 2004.

Geotechnical Report Review

LGC Geotechnical, Inc. completed a geotechnical study for the proposed Project site (completed January 25, 2021). The report, Geotechnical Due Diligence Review and Rippability Evaluation for the Proposed Multi-Family Residential Development, Southeast Corner of Whitewood Road and Lee Lane, Murrieta, California, documents the subsurface geological conditions at the proposed Project site (LGC Geotechnical, Inc. 2021). The report details the results of subsurface explorations at four (4) locations that fall within the proposed Project site to determine subsurface conditions. According to the report, four (4) seismic refraction lines of approximately 125 ft in length were completed to a maximum depth of 40 to 45 ft below ground surface (bgs). The report's findings determined that the proposed Project site is generally underlain by hard crystalline bedrock (Gabbro) with surficial deposits of topsoil, colluvium, and alluvium (or gabbro) approximately 2 to 3 ft thick. The report further noted the presence of surface boulders onsite. The report concluded that the surficial deposits (topsoil, colluvium, and alluvium) would be easily rippable; however, the underlying bedrock may be difficult to excavate. As such, the geotechnical report recommended that in areas of proposed underground utilities, the bedrock should be over-excavated a minimum depth of 2 ft below the deepest utility during the rough grading phase to facilitate the reduction in future excavation difficulties that would utilize smaller construction machinery. Further, the report states that in areas where the bedrock is greater than approximately 20 ft from the existing ground surface, blasting or other specialized equipment may be necessary to enable excavation of the subsurface bedrock.

Historical Maps and Aerial Photographs Review

Historical topographic maps and aerial photographs were consulted through the Nationwide Environmental Title Research LLC to better understand any natural or human-made changes to the proposed Project site and surrounding properties over time. A review of all available historical aerial photographs was conducted and included 1938, 1967, 1978, 1985, 1996, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016 and 2018 (NETR 2022b). Through careful comparative review of historical aeriels, changes to the landscape of a study area may be revealed. Disturbance to the study area is specifically important as it helps determine if soils within the study area are capable of sustaining intact archaeological deposits. Additionally, historical aeriels have the potential to reveal whether a study area was subjected to alluvial deposits by way of flooding, debris flows or mudslides, as well as placement of artificial or foreign fill soils that may have buried intact archaeological deposits. A review of available topographic maps was conducted and included the following years: 1901, 1904, 1942, 1943, 1955, 1962, 1971, 1975, 1979, 1986, 2015, and 2018 (NETR 2022a, USGS 2022). Topographic maps depict not only elevation of the study area as well as the areas surrounding it, but they also illustrate the location of roads and some buildings. Although topographic maps are not comprehensive, they are another tool in determining whether a study area has been disturbed and sometimes to what approximate depth.

Historical Topographic Maps

The first USGS topographic map showing the Project site dates to 1901 and shows the proposed Project site and surrounding area as undeveloped. The 1904 topographic map shows no significant changes to the proposed Project site since the 1901 topographic map. The 1942 and 1943 topographic maps do not depict Whitewood Road or Lee Lane. There is a west to east dirt road and a structure, directly west of where the current Whitewood Road is located. The exact location is unclear, but the road may have partially extended past the western edge of the proposed Project site. The 1955 topographic map depicts the intermittent drainage that currently intersects the proposed Project site. No significant changes to the proposed Project site are depicted until the 1979 topographic map when multiple north to south running roads along the east and west boundaries of the proposed Project site are depicted. The road along the western edge is most likely Whitewood Road, however, it does not match the exact layout of the current Whitewood Road. The 1986 topographic map does not show any significant changes to the proposed Project site since the 1979 topographic map. The 2015 and 2018 topographic maps depict Whitewood Road and Lee Lane. While topographic maps are informative, they don't show the minute changes to a landscape overtime and at times, are inconsistent with what is depicted year to year. Nonetheless, the information gathered contributes to the understanding of the chronological development of the proposed Project site.

Historical Aerial Photographs

Table 3.5-3. Historical Aerials showing the Proposed Project Site

Year	Description
1938	The aerial photograph shows the proposed Project site as undeveloped with small vegetation covering the surface. There is an intermittent drainage that intersects the proposed Project area, east to west. There are two trees visible along the drainage. There is a trail along the western edge of the proposed Project site where Whitewood Road is located.
1967	No significant changes to the proposed Project site.
1978	Whitewood Road appears to be wider than previously shown. The drainage appears to have forked with one branch trending slightly north and one branch trending slightly south. There is also a road running north to south along the eastern boundary of the proposed Project site.
1985	No significant changes to the proposed Project site.
1996	No significant changes to the proposed Project site.
2002	No significant changes to the proposed Project site.
2005	No significant changes to the proposed Project site. Whitewood Road has been partially paved.
2009	No significant changes to the proposed Project site, with the exception of an increase of vegetation along the drainage. Whitewood Road has been fully paved.
2010	No significant changes to the proposed Project site.
2012	Some cleared areas are visible in northwestern corner of the proposed Project site.
2014	No significant changes to the proposed Project site.
2016	No significant changes to the proposed Project site.
2018	No significant changes to the proposed Project site.

Fieldwork

Pedestrian Survey

Dudek Archaeologist, Makayla Murillo, and Pechanga Band of Luiseño Indians Tribal representative, Chris Yearean, conducted an intensive-level archaeological pedestrian survey of the Project site on April 7, 2022 to locate previously recorded cultural resources and identify any new or previously unidentified cultural resources. The survey was conducted in parallel transects, utilizing no greater than 10-meter-spaced (approximately 32-foot) transects, where feasible. The ground surface was inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, groundstone tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of structures and/or buildings (e.g., standing exterior walls, post holes, foundations), and historical artifacts (e.g., metal, glass, ceramics, building materials). Careful attention was paid to outcrops and boulders, as the proposed Project site and surrounding area are documented as containing several prehistoric bedrock milling features. Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials. All field notes, photographs, and records related to the current study are on file at Dudek's Pasadena, California office. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory. A site visit was conducted on May 12, 2022 at the request of Pechanga Band of Luiseño Indians as a function of AB 52 consultations efforts; City of Murrieta officials, Christopher Tracy and Jarrett Ramaiya; Tribal representatives, Ebru Ozdil, Paul Macarro and Molly Earp; and Dudek Senior Archaeological Heather McDaniel McDevitt were present. The site visit included examination of identified resources and an opportunistic survey of the proposed Project site to gain a better understanding of the environmental setting and cultural landscape.

The proposed Project site consists of an undeveloped, rugged landscape with a drainage that bisects mid-site, trending east to west, branching into two separate drainages towards the western boundary of the proposed Project site. The topography of the parcel generally slopes inward toward the drainage in the middle of the proposed Project site, with undulating topography in the northwestern portion. Vegetation included grasses, shrubs, thistle, and oak, as well as a riparian corridor with dense vegetation and trees. Many surface boulders and bedrock outcrops were observed throughout the proposed Project site. Ground surface visibility was fair (approximately 50 percent) due to presence of boulders, rocks, and concrete debris, including potential fill sand in several areas, as well as overgrown vegetation. Disturbances observed include the presence of homeless encampments, modern refuse scattered across the site and sporadic sections of potential fill sand. Other evidence of ground disturbances throughout the proposed Project site was soil displacement and/or ground surface clearing through the use of heavy equipment and disking. All observed soils within the proposed Project site appear to be consistent with the USDA's characterization of Cajalco fine sandy loam and Cajalco rocky fine sandy loam with rock outcrops (USDA 2022).

During the April 7, 2022 survey, efforts were made to relocate the three (3) previously recorded resources (P-33-013332/CA-RIV-7424, P-33-013333/CA-RIV-7425, and P-33-013334/CA-RIV-7426), to determine whether any changes existed requiring an update to the existing California Department of Parks and Recreation Form (DPR) 523 (Series 1/95) forms. Following is a summary of resource observations made during the pedestrian survey:

P-33-013332/CA-RIV-7424. Located and appeared to be in similar condition to that described in the site record.

P-33-013333/CA-RIV-7425. Located; however, only one of the two bedrock milling features documented in the site record was observed to be in the same condition as reported in 2004. Dudek revisited the mapped location of Bedrock Milling Feature 2 as documented in EIC records; however, an inspection of this feature determined that

the bedrock had been subjected to major exfoliation due to weathering, resulting in a significant impact on the integrity of the resource. No other associated artifacts were observed.

P-33-013334/CA-RIV-7426. Documented in 2004 as presumed destroyed by the construction of Meadowlark Lane; efforts to locate this resource were unsuccessful and confirmed the 2004 findings.

P-33-013363 and P-33-014358. Both artifact isolates, were documented by report RI-05692 as collected in 2004 and therefore, no efforts were made to locate these isolates during Dudek's survey of the Project site.

Newly Recorded Cultural Resources

Four (4) newly identified resources were identified as a result of the survey, including two (2) bedrock milling features and two (2) isolates (see Figure 4). The two (2) new features (BMF-1 and BMF-2) are located in the northern half portion of the proposed Project site, north of the drainage. The newly identified isolates (ISO-1 and ISO-2) are located in the southern half portion of the proposed Project site, south of the drainage that bisects the site. No other associated artifacts were observed. All four (4) newly identified cultural resources are documented on DPR forms provided in Appendix C and photos of features and isolates are provided in Appendix D within Appendix C.

Three (3) newly identified resources were identified as a result of the May 12, 2022, site visit/opportunistic survey conducted by the City, Dudek and Tribal representatives. These resources include one (1) bedrock mortar (BRM-A) located immediately south of the drainage and approximately 100 feet northeast of CA-RIV-7425; one (1) slick (BRM-B) located north of the drainage and approximately 100 feet northeast of CA-RIV-7424; and one (1) slick (BRM-C) located north of the drainage and approximately 160 feet northwest of CA-RIV-7424. Additional details will be included in the report once the Tribe has provided the data (see Figure 4).

Subsurface Testing

A subsurface testing program was prompted by the identification of prehistoric cultural resources during the intensive archaeological field surveys for the proposed Project (McDaniel McDevitt 2022) and by previous archaeological investigations (Hogan et al. 2004b; Hogan et al. 2006; Tang and Smallwood 2006). A work plan was prepared in accordance with the California Environmental Quality Act, City of Murrieta guidelines and requirements with respect to cultural resources and in consultation with interested Tribes. All work was performed in accordance with the Secretary of the Interior's Standards and Guidelines. A total of eighteen (18) shovel test pits were excavated to depths between 12 to 80 centimeters and were terminated based on natural refusal (bedrock or heavy compaction) or because of the consistent observation of sterile soils to a depth on 80 cm. All shovel test pits were negative. Based on these findings and negative findings from previous testing conducted adjacent to some of the resources, the potential for subsurface deposits to be associated with the resources located within the project site is unlikely.

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

No Impact. As defined by the CEQA Guidelines, a "historical resource" is considered to be a resource that is listed in or eligible for listing in the National Register of Historic Places, California Register of Historic Resources, has been identified as significant as the result of a formal evaluation, or is listed on a local register of historical resources. The Project site is vacant of structures and therefore, no built environment resources meeting the threshold of a "historical resource" are present. Although CEQA Guidelines include

archaeological resources as “historical resources”, the potential for impacts to archaeological resources as a result of Project implementation is addressed in Threshold B.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less-than-Significant with Mitigation Incorporated. The EIC and NAHC SLF search results, including the pedestrian survey of the Project site were positive for the presence of cultural resources within and surrounding the Project site. The results of the EIC search of the CHRIS database revealed that a total of five (5) prehistoric archaeological resources were identified within the Project site. The intensive-level pedestrian survey, conducted under fair (approximately 50 percent) ground surface visibility, resulted in the identification of two (2) bedrock milling features and two (2) isolate artifacts comprised of chipped stone flakes. Additionally, three (3) newly identified resources were identified as a result of the additional site visit/opportunistic survey conducted by the City, Dudek and Tribal representatives. A review of available historical maps and aerial photographs indicates that the proposed Project site has not been subjected to development or major ground disturbing activities and has remained vacant and undeveloped since at least 1901. Moreover, a review of the geotechnical report prepared for the Project states the site is generally underlain by hard crystalline bedrock, with surficial deposits of topsoil, colluvium, and alluvium (or gabbro) approximately 2 to 3 ft thick. No artificial or engineered fill soils were encountered as a result of the subsurface exploratory investigations conducted as part of the geotechnical study. Finally, subsurface archaeological testing was conducted immediately adjacent to the bedrock milling resource features and resulted in a negative finding for the presence of subsurface archaeological deposits.

As stated in CEQA Guidelines Section 15064.5(b)(1), a project causing a substantial adverse change in the significance of an historical resource [including a unique archaeological resource] is one that could result in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, such that the significance of an historical resource would be materially impaired (i.e., altering those physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources as determined by a lead agency [the County of Los Angeles] for purposes of CEQA; or its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code).

As a result of a previous investigation, resources P-33-013332/CA-RIV-7424 and P-33-013333/CA-RIV-7425 were subjected to testing and evaluation. The results of that investigation in 2004 determined that these two resources are not historical or unique archaeological resources under CEQA and therefore, the proposed Project would not cause a substantial adverse change in the significance of these two resources. However, the intensive-level pedestrian survey conducted in support of the current proposed Project resulted in the identification of four (4) newly identified prehistoric archaeological resources and the site visit requested by the Tribe resulted in the identification of three (3) newly identified tribal cultural resources. Subsurface testing of the newly identified bedrock milling features was conducted in 2022 which, as previously mentioned, resulted in a negative finding for subsurface cultural deposits. The remaining two (2) newly identified cultural resources are isolates and by definition under CEQA, are not historical or unique archaeological resources. All but one of the bedrock milling features do not meet the threshold for significance in accordance with CEQA. One bedrock milling feature does have the potential to be eligible for inclusion in the California Register of Historical Resources. However, the potentially eligible resource will be avoided through project design as well as P-33-013332/CA-RIV-7424, P-33-013334/CA-RIV-7426 and a portion of P-33-013333/CA-RIV-7425. The following mitigation measures address the

protocols and procedures to be carried out for the treatment of known resources that do not meet the criteria of a historical resource or unique archaeological resource and for the proper treatment of resources that may be encountered inadvertently. With the incorporation of mitigation measures MM-CUL-1 through MM-CUL-9, impacts associated with archaeological resources would be less than significant.

Prior to the commencement of construction activities for all phases of project implementation, the project applicant/owner/developer shall retain a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, is approved by the City of Murrieta – Planning Division, and has the experience and is well-acquainted with the history of the ancestral tribes geographically connected to the Project site referred to here on as “Principal Investigator/Archaeologist”. NOTE: For purposes of proper implementation of the following mitigation measures, the term “Consulting Tribes” is defined pursuant to PRC 21080.3.1 as California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site that may have expertise concerning their tribal cultural resources AND have requested and participated in formal AB 52 consultation for the Project. The tribes that fulfill this definition for this Project include the Pechanga Band of Luiseño Mission Indians and the Rincon Band of Luiseño Indians.

The selected Principal Investigator/Archaeologist, and tribal cultural resources monitor(s) shall be retained to implement the following mitigation measures:

MM-CUL-1 Cultural Resource Monitoring Plan. At least thirty (30) days prior to the submittal of the final grading plans to the City, the Project Applicant, Principal Investigator/Archaeologist, Project Tribal Cultural Monitor(s), and designated project planner from the City of Murrieta will meet and develop a Cultural Resources Monitoring Plan (CRMP or Plan) for the treatment and mitigation of cultural resources during Project development. Treatment of the resource(s) will be consistent with the terms and provisions of the mitigation and CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Principal Investigator/Archaeologist will circulate the draft CRMP to the assigned planner and Consulting Tribes for review and comment. The final document will include methods and practices and other appropriate issues that may be relevant to the culturally appropriate treatment of the resources. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r).

The Plan is to outline a program of treatment and mitigation of the known and inadvertently found cultural resources during ground-disturbing phases (throughout the duration of the Project. This plan will define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all Project site plans intended for use by those conducting the ground-disturbing activities. The Plan will also include the conditions under which monitoring is required pursuant to MM-CUL-3 and MM-TCR-3 and the manner of facilitation.

The CRMP will include/address each of the following:

- a) Project description and location
- b) Project grading and development scheduling;
- c) Roles and responsibilities of individuals on the Project;

- d) The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;
- e) The protocols and stipulations that the contractor, City, Consulting Tribes and Principal Investigator/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 resource's evaluation.
- f) The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
- g) Contact information of relevant individuals for the Project;
- h) details of the relocation and controlled grading operations.

MM-CUL-2 **Worker Environmental Awareness Program.** All construction personnel and monitors who are not trained archaeologists or tribal cultural monitors shall be briefed regarding inadvertent discoveries prior to the start of construction activities. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide the construction personnel with brief review of the cultural sensitivity of the project and the surrounding area; what resources could be potentially identified during earthmoving activities; the requirements of the monitoring program; the protocols to follow during the construction of the project and explain the importance of and legal basis for the protection of significant archaeological and tribal cultural resources, and who to contact if and when the cultural resources are identified. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, archaeological, and tribal cultural monitor(s).

MM-CUL-3 **Archaeological Monitoring.** Prior to the issuance of the grading permit, the Developer shall retain a qualified archaeological technician/monitor, meeting the Secretary of the Interior's Standards, to observe ground disturbing activities ensure the proper treatment of the known cultural resources on site and respond to and address any inadvertent discoveries identified during ground disturbing activities. A Principal Investigator/Archaeologist shall oversee and establish monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs. This requirement shall be noted on all construction plans to ensure implementation.

Upon completion of all ground-disturbing activities, an archaeological monitoring report shall be prepared within 60 days following completion of ground disturbance and submitted to the City of Murrieta – Planning Division for review. This report shall document compliance with approved mitigation, and all conducted monitoring efforts, and include an appendix with daily archaeological monitoring logs. The final report shall be submitted to the City, Consulting Tribes, and the Eastern Information Center (EIC).

MM-TCR-3 **Native American Monitoring.** At least 30 days prior to issuance of a grading permit the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground-disturbing activities. The applicant/owner/developer shall secure agreements with the Consulting Tribes for Tribal Monitoring. The agreement shall include, but not limited, outlining provisions and requirements for addressing the treatment of

cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal monitors during ground disturbing activities. The copy of the signed agreement shall be provided to the City Planner and Building official prior to issuance of the first grading permit. The Native American Monitor has the authority to temporarily divert and stop earth moving activities in the event that suspected cultural resources are unearthed. The Native American Monitor(s) will be responsible for maintaining weekly monitoring logs, the Developer shall identify an individual on site to sign the weekly logs.

MM-CUL-4 **ESA Fencing.** Prior to any earthmoving activities, milling features P-013332, P-013333, P-013334 will be fenced and identified as an Environmentally Sensitive Area (ESA). The Project Applicant will ensure that appropriate temporary fencing is installed (i.e., orange fabric/barrier fencing) to prevent any unintentional disturbances to these features during any earthmoving activities on the project site. The fencing will be installed before clearing and grubbing and will not be removed until all earthmoving activities have been completed. The Principal Investigator/Archaeologist and Tribal Monitor will be on site to monitor the fence installation and removal and will conduct daily inspections of the fencing to make sure that it is intact and has not been breached. If the Principal Investigator/Archaeologist and/or Tribal Monitor identify a breach of the fence, i.e., removal, cut, depressed, driven over or intentionally breached in any way, all work within a 25-foot buffer shall cease and the Project Applicant, City, Principal Investigator/Archaeologist and the Consulting Tribes shall meet and confer as to the best method to repair the fencing. The person(s) responsible for the breach and the Construction Supervisor (or appropriate supervisory personnel) shall be required to retake the sensitivity training provided at the beginning of construction, in addition to any other remedies considered appropriate. If as a result of soil preparation testing, adjustment of the ESA fencing is deemed necessary, consultation with the Tribal Representative(s) and Principal Investigator/Archaeologist with the concurrence of the City Planner shall occur to determine any necessary treatment or mitigation, if any, consistent with the procedures outlined in the established mitigation measures.

MM-CUL-5 **Inadvertent Discovery Clause.** If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribes. Tribal cultural resources are excluded from the definition of unique cultural resources as those resources are defined by the tribal values ascribed to them by their affiliated communities. Treatment of tribal cultural resources inadvertently discovered during the project's ground-disturbing activities shall be subject to the consultation process required by state law and AB 52.

- a) All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the Project Applicant, the Principal Investigator/Archaeologist, the Tribal Representative(s), and the Community Development Director to discuss the significance of the find.

- b) At the meeting, the significance of the discoveries shall be discussed and after consultation with the Tribal Representative(s) and the Principal Investigator/ Archaeologist, a decision shall be made, with the concurrence of the City Planner, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.
- c) Further ground disturbance, including but not limited to grading, trenching etc., shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal Monitors if needed.
- d) Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the Consulting Tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/ Mitigation Measures.
- e) If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Principal Investigator/ Archaeologist, in consultation with the Consulting Tribes, and shall be submitted to the City for their review and approval prior to implementation of the said plan.
- f) Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Project Applicant and the Consulting Tribes cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Planner for decision. The City Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Principal Investigator/ Archaeologist and shall take into account the cultural and religious principles and practices of the Consulting Tribes. Notwithstanding any other rights available under the law, the decision of the City Planner shall be appealable to the City Planning Commission and/or City Council. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM-CUL-6 **Final Disposition.** In the event that Native American Cultural resources are identified during Project earthwork and ground-disturbing activities, the following procedures shall be carried out for final disposition; One or more of the following treatments, in order of preference, shall be employed in consultation with the Consulting Tribes. Evidence of such shall be provided to the City of Murrieta.

- 1. Preservation-In-Place of the cultural resources. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resource(s).
- 2. Reburial of the cultural resource(s) on the Project property. The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. The measures for reburial shall include, at

least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

3. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM-CUL-7 **Relocation of Resources.** It is understood by all parties that cultural features with the temporary identification numbers Whitewood-BMF 1, -BMF 2 cannot be avoided and will be relocated on-site. The Consulting Tribes shall work with the Principal Investigator/Archaeologist, the developer, and the grading contractor or appropriate personnel to determine a reasonable methodology for relocating these features. Attempts will be made to excavate and relocate these boulders to the open space as identified in Figure A, should their size and depth permit. If the boulders cannot be moved intact due to feasibility constraints, an attempt will be made to transversally cut into them so as to free the exposed prehistoric features, allowing the feature itself and the broken pieces of the boulder(s) to be relocated to the open space as identified in Figure A. The current Department of Parks and Recreation (DPR) forms shall be updated, detailing which features were relocated, the process taken, and updated maps provided documentation of the features' new location. The site record should clearly indicate that the features are not in their original location and why they were relocated.

MM-CUL-8 **Controlled Grading and Grubbing.** All grading shall be controlled in areas of concern as determined by the Principal Investigator/Archaeologist and the Consulting Tribes and as reflected in figure B. The identified area shall be inspected by the Principal Investigator/Archaeologist and Native American monitor prior to initiating grading for those areas. Grading shall be controlled within the Environmentally Sensitive Buffer Area using a slope board or similar equipment to allow soil to be removed in increments of only a few inches at a time. Other areas which may require controlled grading shall be determined by the Principal Investigator/Archaeologist and the Native American monitor(s) based on the results and soil types identified during grading. Should any changes be needed, an updated

exhibit will be produced and approved by all parties prior to any ground disturbance in the newly identified area.

MM-CUL-9 **Phase IV Report.** Prior to final inspection, the Principal Investigator/Archaeologist is to submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with the Planning Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Planning Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Planning Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribes' Cultural Resources Departments.

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-Than-Significant Impact with Mitigation Incorporated. No prehistoric or historic burials were identified within the proposed project site as a result of the records search. In the event that human remains are inadvertently encountered during construction activities, such resources would be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e). The following mitigation measures address the protocols and procedures to be carried out in the event human remains are encountered inadvertently as a result of Project implementation. With the incorporation of mitigation measures MM-CUL-10 and MM-CUL-11, potential impacts to human remains would be less than significant.

MM-CUL-10 **Human Remains.** In the event that human remains are inadvertently encountered during construction activities, all work is to immediately stop, and no further disturbance shall occur in the area until the County Coroner has made the necessary findings as to origin. The remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to immediately notify the Native American Heritage Commission (NAHC). The NAHC must immediately notify those persons it believes to be the most likely descendant (MLD). The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

MM-CUL-11 **Non-Disclosure.** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California

Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

3.6 Energy

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

- 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. Implementation of the proposed project would result in energy use for construction and operation, including use of electricity, natural gas, and petroleum-based fuels. The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Additionally, although natural gas and electricity usage would increase due to the implementation of the project, the project's energy efficiency would meet the current Building Energy Efficiency Standards (Title 24). Further, while the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time.

The proposed project's impact on energy resources is discussed separately below for construction and operation. Energy consumption (electricity, natural gas, and petroleum consumption) was estimated using CalEEMod data from the air quality and GHG assessment. For further detail on the assumptions and results of the energy analysis, please refer to Appendix A.

Construction Energy Use

Electricity

Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities would require electricity, including the conveyance of water that would be used for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would

cease upon the completion of construction. Southern California Edison (SCE) is the electricity provider to the project site and provided approximately 81,000 Gigawatt-hours per year of electricity in 2019.¹¹ Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available SCE electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Petroleum-Based Fuels

Petroleum-based fuel usage represents the majority of energy consumed during construction. Petroleum fuels would be used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g., hauling of material to disposal facilities).

Off-road construction equipment fuel usage was calculated using CalEEMod default off-road equipment assumptions and the 2017 Off-road Diesel Emission Factors spreadsheet, prepared by CARB (CARB 2017a). Fuel usage related to on-road construction-related vehicle trips was calculated using the construction vehicle trip assumptions from CalEEMod and the mileage for the SCAB from EMFAC2017. Detailed assumptions and results of this analysis are included in the Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis prepared for the proposed project (Appendix A).

The estimated fuel usage from construction off-road equipment and on-road vehicle travel is summarized in Table 3.6-1. All off-road equipment, and vendor/haul trucks were assumed to be diesel, while worker trips were based on an entire fleet of gasoline vehicles. As shown, construction of the project is anticipated to consume 44,161 gallons of gasoline and 76,785 gallons of diesel over the course of the approximately 16-month construction period. The proposed project would be required to comply with the CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. Furthermore, the proposed project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that requires the vehicle fleet to reduce emissions by retiring, replacing, repowering older engines, or installing Verified Diesel Emissions Control Strategies. Thus, the proposed project would not result in the wasteful or inefficient use of petroleum during construction and no mitigation measures would be required.

Table 3.6-1. Estimated Construction Fuel Use

Construction Phase	Fuel Use (gallons)		
	Off-road Equipment	On-Road Trucks	On-Road Workers
Site Preparation	2,730	39	76
Grading	10,286	118	254
Building Construction	39,008	13,590	40,887
Paving	9,880	—	559
Architectural Coating	1,135	—	2,384
Total Fuel Use	63,038	13,747	44,161

Source: Appendix A

¹¹ Obtained from: <http://www.ecdms.energy.ca.gov/elecbyutil.aspx> (CEC 2016)

Operational Energy Use

Operation of the proposed project would require use of electricity, natural gas, and petroleum fuel, which were estimated based on CalEEMod defaults and assumptions consistent with the air quality and GHG assessment. Energy consumption associated with project operation is discussed separately for each source below. Detailed assumptions and results of this analysis are included in the Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis prepared for the proposed project (Appendix A).

Electricity

The project would require electricity for multiple purposes at buildout, including cooling, indoor and outdoor lighting, use of appliances, and for the supply, conveyance, treatment, and distribution of water. The proposed project would consume approximately 1,346,830 kilowatt-hours of electricity per year. This equates to 0.0016% of the electricity consumed annually by SCE. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the SCE service area. Additionally, the proposed project would comply with all Federal, State, and City requirements related to the consumption of electricity, which include CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed residential development, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Additionally, the project would meet the Title 24 Energy Efficiency Standards that require the roofs of the proposed structures to be "solar-ready", as indicated in Table 3.6-2, below. Thus, the proposed project would not result in the wasteful or inefficient use of electricity during operation and no mitigation measures would be required.

Natural Gas

Operation of the proposed project would require natural gas for various purposes, including water heating and natural gas appliances. The proposed project would consume 4,695 million British Thermal units of natural gas per year. This equates to approximately 0.01% of the natural gas consumed annually in Riverside County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County. Additionally, the proposed project would comply with all Federal, State, and City requirements related to the consumption of natural gas, which include the CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed residential development, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, the proposed project would not result in the wasteful or inefficient use of natural gas during operation and no mitigation measures would be required.

Petroleum-Based Fuels

During operations the majority of petroleum-based fuel consumption would result from vehicle trips to and from the project site and is a function of the increased VMT during project operation. As discussed in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions, the VMT attributable to the proposed project was estimated using CalEEMod default trip rates and information provided in the TIA (Appendix H 1). Operation of the proposed project would result in 7,988,899 VMT annually and the consumption of approximately 307,403 gallons of petroleum fuel per year from vehicle travel, which equates to 0.025% of the gasoline and diesel consumed annually in Riverside County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, the proposed project would not result in the wasteful or inefficient use of petroleum during operation and no mitigation measures would be required.

In summary, over the lifetime of the project, the fuel efficiency of the vehicles being used by the residents and visitors of the project is expected to increase. As such, the amount of gasoline consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California (CARB 2017b). Additionally, in response to Senate Bill (SB) 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the SCAG planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation (SCAG 2021). As such, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

The proposed project would create additional electricity and natural gas demand by adding residential units. New facilities associated with the proposed project would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting.

Implementation of the project would increase the demand for electricity and natural gas at the project site and petroleum consumption in the region during construction and operation. However, as the project would be consistent with current regulations and policies, the project would not be wasteful, inefficient, and would not result in unnecessary energy resource consumption. The project's energy consumption demands during construction and operation would conform to the State's Title 24 standards such that the project would not be expected to wastefully use gas and electricity. Since the proposed project would comply with Title 24 conservation standards, the proposed project would not directly require the construction of new energy generation or supply facilities or result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, vehicle usage associated with the project would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts 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. The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. At a minimum, the proposed project would be subject to and would comply with, the 2019 California Building Code Title 24 (24 CCR, Part 6). The project would also comply with the City's Climate Action Plan (CAP), which was adopted in January 2011, and updated in July 2020 to reduce the City's GHG emissions, in part through reduction measures addressing energy efficiency (City of Murrieta 2011c; 2020b). The Murrieta General Plan 2035 also includes many energy-related policies that would be relevant to the proposed project (City of Murrieta 2011a). The proposed project's consistency with these policies is outlined in Table 3.6-2.

As shown in Table 3.6-2, the proposed project would not conflict with the applicable energy-related policies in the City's General Plan; therefore, given that the General Plan is the relevant energy plan for the project site, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or efficiency and impacts during construction and operation would be less than significant.

Table 3.6-2. Project Consistency with Applicable General Plan Energy Policies

General Plan Policy		Project Consistency
INF-1.5	Continue to require new development and redevelopment to provide verification that energy utilities are able to accommodate the additional demand for service.	Consistent. The project applicant has received "Will Serve" letters from Southern California Edison and SoCal Gas verifying that the energy utilities are able to accommodate the additional demand for service.
INF-1.6	Provide information to water districts, Riverside County Flood Control and Water Conservation District (RCFCWCD), and energy utilities in their planning efforts to ensure adequate infrastructure is available for anticipated development.	Consistent. The project applicant has informed Western Municipal Water District, RCFCWCD, Southern California Edison and SoCal Gas of the proposed project. In addition, the proposed project is designated as multifamily residential in the General Plan and is zoned Multi-Family 2 Residential (MF-2) in an area of the City that is currently being developed. As such, the agencies and companies responsible for infrastructure development have anticipated development of the project site.
CSV-12.1	Ensure that all developments comply with energy efficiency requirements as mandated by the applicable Building Code.	Consistent. The proposed project is required to be designed in accordance with the Title 24 Part 6 Building Energy Efficiency Standards that require the incorporation of energy-efficient building features. The City requires a Title 24 report to be completed that shows compliance with the current Title 24 requirements, prior to issuance of a building permit.

Table 3.6-2. Project Consistency with Applicable General Plan Energy Policies

General Plan Policy		Project Consistency
CSV-12.3	Support the on-site installation and use of renewable energy generation systems for residential, commercial, institutional, and industrial uses.	Consistent. The proposed project is required to meet the Title 24 Energy Efficiency Standards that require the roofs of the proposed structures to be “solar-ready”, which consists of structurally designing the roofs to be able to handle the additional weight associated with solar panels as well as providing electrical conduit between the roof and main panel of adequate size to support the installation of solar panels in the future.
CSV-12.6	Encourage new development projects and significant rehabilitation or expansion projects to incorporate innovative energy conservation or generation amenities such as electric vehicle charging stations, solar canopies, and carports.	Consistent. The proposed project is required to meet the 2019 Title 24 Part 11, standards that the installation of raceway installations for electric vehicle charging stalls on a minimum of 10 percent of all parking spaces as well as providing bicycle parking spaces, preferred parking spaces for clean air vehicles, use of efficient lighting, use of low flow plumbing fixtures and water-efficient landscaping as well as requiring a minimum of 65% of construction waste to be diverted from landfills.
CSV-14.1	Ensure all applicable construction projects comply with the California State Green Building Standards Code.	Consistent. The City requires all projects to show proof that they meet the 2019 Title 24 Part 11, standards prior to any building permits being issued for the project.

Source: Appendix A

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

The following analysis is based, in part, on the Geotechnical Due Diligence Review and Rippability Evaluation for the Proposed Multi-Family Residential Development, Southeast Corner of Whitewood Road and Lee Lane, Murrieta, California, prepared by LGC Geotechnical, Inc. in January 2021 (Appendix D).

By submitting the Geotechnical Due Diligence Review, the project has complied with the City's General Plan EIR mitigation measures GEO-1 and GEO-2, which require a registered geologist or soils engineer to prepare and submit an area-specific Geologic Study to the Public Works or Building and Safety Department for approval, and requires projects to comply with each of the recommendations detailed in the Geotechnical Study, respectively.

a) Would the project 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.

No Impact. The Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. The project site is not located within an Alquist-Priolo Earthquake Fault Zone, and no active faults are known to cross the site (Appendix D). The closest known active fault is the Murrieta Hot Springs Fault, which is part of the larger Elsinore Fault Zone, and is located approximately three miles south of the project site (Appendix D). Therefore, no direct or indirect impacts associated with fault rupture would occur.

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. Similar to other areas located in the seismically active Southern California region, the City is susceptible to strong ground shaking during an earthquake. However, as previously addressed in Section 3. 7(a)(i), the project site is located approximately 3 miles away from the Murrieta Hot Springs Fault. Additionally, the project would be designed in accordance with all applicable provisions established in the current California Building Code, which sets forth specific engineering requirements to ensure structural integrity during a seismic event. Compliance with these requirements would reduce the potential risk to both people and structures with respect to strong seismic ground shaking. Therefore, direct and indirect impacts associated with strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction occurs when partially saturated soil loses its effective stress and enters a liquid state, which can result in the soil's inability to support structures above. Liquefaction can be induced by ground-shaking events and is dependent on soil saturation conditions. According to Exhibit 5.8-5 in the City's General Plan EIR, the project site is located outside an area susceptible to liquefaction (City of Murrieta 2011b). Additionally, the project's geotechnical report concluded that the project site's potential of liquefaction is very low (Appendix D). The nearest liquefaction zone is located approximately 1.2 miles to the northeast of the project site (CGS 2016). Therefore, no direct or indirect impacts associated with seismic-related ground failure, including liquefaction, would occur.

iv) Landslides?

No Impact. The project site and surrounding area are relatively flat and lack any hillsides or topographic features typically susceptible to landslides. According to Exhibit 5.8-6 in the City's General Plan EIR, the project site is located outside an area susceptible to earthquake induced landslides (City of Murrieta 2011b). The nearest landslide zone is located approximately 0.5 mile to the east of the project site (CGS 2016). Additionally, the project's geotechnical report concluded that the project site's landslide risk is very low (Appendix D). Therefore, no direct or indirect impacts associated with landslides would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-Than-Significant Impact. The project would involve earthwork and other construction activities that would disturb surface soils and temporarily leave exposed soil on the ground's surface. Common causes of soil erosion from construction sites include stormwater, wind, and soil being tracked off site by vehicles. To help curb erosion, project construction activities would comply with all applicable federal, state, and local regulations for soil erosion. The project would be required to comply with standard regulations, including SCAQMD Rules 402 and 403, which would reduce construction related wind erosion impacts. Additionally, because the project would involve construction within an area that is larger than one acre, the project applicant would be required to apply for and receive coverage under the current General Construction Permit. Coverage under the General Construction Permit would require adherence to a variety of conditions designed to protect receiving water quality from degradation that could otherwise result from construction activities, as specified in a project-specific stormwater pollution prevention plan (SWPPP). Conditions would include adherence to sediment and stormwater pollutant control best management practices (BMPs), effluent monitoring and compliance, post-construction-period requirements, worker training, and various other measures designed to minimize potential for soil erosion and loss of topsoil.

In addition to requirements of the General Construction Permit, the project would be required to adhere to relevant construction practices required under the City Municipal Code, including the Jurisdictional Runoff Management Program and Erosion/Sediment Control requirements. Stormwater BMPs would include those recommended by the California Stormwater Quality Association. With adherence to these regulations and implementation of the SWPPP and BMPs, project construction would have a less-than-significant impact associated with soil erosion and loss of topsoil.

Upon completion of construction, the multifamily residential complex would improve the project site, greatly reducing the possibility for soil erosion or loss of topsoil compared to current conditions. Collectively, on-site areas, such as landscape areas and parking, would reduce the potential for soil erosion and topsoil loss. The structural and paved improvements would generally be impervious areas lacking any exposed soils, with the exception of the proposed stormwater biofiltration basins. The landscape areas, although pervious, would contain vegetation that would help stabilize and retain surface soils on the project site. Therefore, impacts would be 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?***

No Impact. As previously discussed in Section 3.7(a)(iii) and (iv), the project site is not located in an area with potential for seismic hazards. Additionally, the project's geotechnical evaluation concluded that the potential for lateral spreading and subsidence is very low (Appendix D). Therefore, no impacts associated with unstable geologic units or soils 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?***

No Impact.

Direct Impacts

Expansive soils are characterized by their potential shrink/swell behavior. Shrink/swell is the change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the cycle of wetting and drying. Clay minerals are known to expand with changes in moisture content. The higher the percentage of clay soils present in near surface soils, the higher the potential for soil expansion.

The project's geotechnical evaluation concluded that the project site's soils have a very low expansion potential (Appendix D). Therefore, no impacts associated with expansive soils would occur.

Indirect Impacts

As noted above, the project site's soil have a very low expansion potential according to Appendix D. Because the project site would not have the potential to have a direct impact due to expansive soils, the proposed project would also have less than significant indirect impacts due to expansive soils.

- 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. Wastewater treatment would be provided by Eastern Municipal Water District. Implementation of the proposed project would not include septic tanks or other alternative wastewater treatment methods. Therefore, implementation of the proposed project would result in no impact associated with soils incapable of supporting septic systems or alternative wastewater treatment methods.

- f) ***Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Less-Than-Significant Impact. The project site lies within the Peninsular Ranges Geomorphic Province (California Geological Survey 2002). This province extends from the tip of the Baja California Peninsula to the Transverse Ranges (the San Gabriel and San Bernardino Mountains) and includes the Los Angeles Basin, offshore islands (Santa Catalina, Santa Barbara, San Nicholas, and San Clemente), and continental shelf. The eastern boundary is the Colorado Desert Geomorphic Province (California Geological Survey 2002; Morton and Miller 2006). The ancestral Peninsular Ranges were formed by uplift of plutonic igneous rock resulting from the subduction of the Farallon Plate underneath the North American Plate during the latter portion of the Mesozoic era (approximately 125 to 90 million years ago) (Abbott 1999).

More specifically, surficial geological mapping by Kennedy et al. (2003) at a scale of 1:24,000 indicates the project site is underlain by Cretaceous (approx. 145 million years ago–66 million years ago) gabbro (map unit Kgb). A geotechnical due diligence review by LGC Geotechnical, Inc. (2021) confirmed the presence of gabbro below a thin veneer (generally less than two to three feet in thickness) of topsoil, alluvium, and colluvium throughout the site. Gabbro is a plutonic igneous rock that has no paleontological sensitivity per the Society of Vertebrate Paleontology (SVP 2010) guidelines.

Dudek submitted a paleontological records search request to the Natural History Museum of Los Angeles County (LACM) of the proposed project site and the surrounding vicinity on November 4, 2021, and the results were received on November 19, 2021. The LACM reported no vertebrate fossil localities from within the proposed project site; however, they did report fossil localities from nearby Pleistocene approx. 2.6 million years ago–11,700 years ago) sedimentary deposits (LACM 2020). Since the project site is not underlain by Pleistocene sedimentary deposits, the fossil localities reported by the LACM will not be discussed herein.

No paleontological resources were identified within the project site as a result of the institutional records search and desktop geological review. It is not anticipated that paleontological resources would be directly or indirectly impacted given the presence of Cretaceous gabbro throughout the project site. In addition, Gabbro is not considered a unique geological feature and does not have a record of producing significant paleontological resources. Therefore, no mitigation pertaining to paleontological resources or unique geological features is recommended for the project.

3.8 Greenhouse Gas Emissions

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

- 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. GHGs are those that absorb infrared radiation (i.e., trap heat) in the Earth's atmosphere. The trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere), is referred to as the "greenhouse effect," and is a natural process that contributes to the regulation of the Earth's temperature, creating a livable environment on Earth. The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. Human activities that generate and emit GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. This rise in temperature has led to large-scale changes to the Earth's system (e.g., temperature, precipitation, wind patterns, etc.), which are collectively referred to as climate change. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5).¹² The primary GHGs that would be emitted by project-related construction and operations include CO₂, CH₄, and N₂O.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare each GHG's ability to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with CalEEMod Version 2016.3.2, this GHG emissions analysis assumed the GWP for CH₄ is 25

¹² Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

(i.e., emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, Air Quality, the proposed project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b). This document, which builds on the California Air Pollution Control Officers Association's previous guidance, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO₂e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD 2010). The 10,000 MT CO₂e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land-use development projects. The most recent proposal issued by SCAQMD, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

- Tier 1. Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2. Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3. Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO₂e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO₂e per year), commercial projects (1,400 MT CO₂e per year), and mixed-use projects (3,000 MT CO₂e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO₂e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4. Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO₂e per-service population for project-level analyses and 6.6 MT CO₂e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5. Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency’s discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the proposed project’s potential to generate GHG emissions that would have a significant impact on the environment, its GHG emissions were compared to the SCAQMD recommended residential project quantitative threshold of 3,500 MT CO₂e per year.

Construction Greenhouse Gas Emissions

Construction of the project would result in GHG emissions, which are primarily associated with off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b) recommends that “construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.” Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 3,500 MT CO₂e per year. Therefore, the determination of significance is addressed in the operational emissions discussion following the estimated construction emissions.

CalEEMod Version 2020.4.0 was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3, Air Quality. Construction of the project is anticipated to commence in April 2022, lasting approximately 16 months. On-site sources of GHG emissions include off-road equipment, and off-site sources include haul trucks, vendor trucks, and worker vehicles. Table 3.8-1 presents the GHG emissions resulting from construction of the project. For further detail on the assumptions and results of this analysis, please refer to Appendix A.

Table 3.8-1. Estimated Annual Construction GHG Emissions (MTCO₂e/year)

Construction Phase	CO ₂ e
Year 1 (2022)	
Site Preparation	26.57
Grading	99.30
Building Construction	436.34
Year 2 (2023)	
Building Construction	515.97
Paving	94.46
Architectural Coating	35.28

Table 3.8-1. Estimated Annual Construction GHG Emissions (MTCO₂e/year)

Construction Phase	CO ₂ e
Total Construction GHG Emissions	1,207.92
Amortized Emissions (30-year project life)	40

Source: Appendix A

Notes: CO₂e = carbon dioxide equivalent; GHG = greenhouse gas.

Operational Greenhouse Gas Emissions

CalEEMod Version 2020.4.0 was used to estimate potential project-generated operational GHG emissions from vehicular sources, area sources (natural gas combustion and landscape maintenance), electrical generation (including electrical generation associated with water supply and wastewater treatment), and solid waste (i.e., CO₂e emissions associated with landfill off-gassing). For additional details see Section 3.3 for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources.

The proposed project is assumed to begin operation by 2023 after completion of construction. Table 3.8-2 shows the estimated annual GHG emissions from operation of the proposed project. As discussed above, total annual operational emissions were combined with amortized construction emissions and compared to SCAQMD's recommended threshold of 3,500 MT CO₂e per year for residential projects.

Table 3.8-2. Estimated Annual Operational GHG Emissions (MTCO₂e/year)

Construction Phase	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area	5.95	0.01	<0.00	6.08
Energy	498.08	0.03	0.01	500.85
Mobile	2,739.68	0.14	0.14	2,738.85
Solid Waste	15.13	0.89	<0.00	37.48
Water and Wastewater	68.98	0.56	0.01	86.94
Total				3,415.19
<i>Amortized 30-year Construction Emissions</i>				<i>40</i>
Project Operations + Amortized Construction Total				3,455.45
<i>SCAQMD Threshold</i>				<i>3,500</i>
Threshold Exceeded?				No

Source: Appendix A

Notes: CO₂ = carbon dioxide ;CH₄ = methane;N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 3.8-2, estimated annual project-generated GHG emissions would be approximately 3,415 MTCO₂e due to project operation only. Estimated annual project-generated operational GHG emissions in 2023 plus amortized construction emissions (approximately 40 MT CO₂e per year) would be approximately 3,456 MTCO₂e per year. Therefore, the project would not exceed the SCAQMD threshold of 3,500 MTCO₂e per year, and the project's GHG contribution would not be cumulatively considerable and is less than significant.

Indirect Impacts

As discussed below in Section 3.11, Land Use and Planning, the project is consistent with the existing general plan land use designation and zoning of the site, and therefore implements the CAP Checklist. The project would not result in construction or operational uses that would indirectly result in GHG emissions. Therefore, indirect impacts would be less than significant.

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

Less-than-Significant Impact. The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions and would result in less-than-significant impacts, as described in the following discussion.

The City of Murrieta General Plan Update Climate Action Plan was adopted in January 2011 to assist the City in reducing GHG emissions to 15% below 2009 baseline GHG emission levels by 2020 to align with Assembly Bill (AB) 32 Scoping Plan (City of Murrieta 2011c). In July 2020, the City adopted the Draft Supplemental Environmental Impact Report Murrieta General Plan 2035 (General Plan Update EIR) (City of Murrieta 2020b), which included an updated GHG emissions analysis to align with the State reduction target of 40 % below 1990 levels by 2030 established by SB 32.

In conjunction with the adoption of the General Plan Update EIR, the City adopted the Climate Action Plan Consistency Checklist ("CAP Checklist") to provide a streamlined review process for proposed new development projects that are subject to discretionary review pursuant to CEQA. The CAP Checklist contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Table 3.8-3 includes the CAP Checklist Items and a project consistency analysis for each measure.

Table 3.8-3. Climate Action Plan Consistency Checklist and Project Consistency

Checklist Item	Project Consistency
Step 1: Land Use Consistency	
1. Are the proposed land uses in the project consistent with the existing General Plan land use and zoning designations?	Yes. The project site is currently designated as Multiple-Family Residential in the General Plan and is zoned Multiple Family 2 Residential (MF-2). The project is consistent with the existing land use designation and zoning.
Step 2: CAP Strategies Consistency	
1. Zero Net Energy Standards (Measure BE-3) a) For residential projects would the project or portion of the project be subject to building permitting (i.e., building permits issued) on or after January 1, 2023?	No. The project would be constructed prior to January 1, 2023.
2. Construction Waste Diversion (Measure SW-2) a) For residential projects, recycle and/or salvage for reuse a minimum of 80 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4 of the California Code of Regulations, Title 24?	Yes. PDF-2 (see Section 2.3) is included that requires the project applicant to recycle or reuse a minimum of 80 percent of the nonhazardous construction waste.
4. Electric Vehicle Service Equipment (EVSE) (Measure T-2) b) Multi-Family Residential Projects: Would 6% of the total parking spaces required, or a minimum of two spaces, whichever is greater, include Electric Vehicle Service Equipment (EVSE) to allow for electric vehicle charging by the resident(s)?	Yes. PDF-3 is provided that requires the project applicant to include EVSE on a minimum of six percent of the total parking spaces.
5. Tree Planting (Measure LU-2) a) For residential and non-residential projects, would the project include the planting of new trees where required by Section 16.26 "Landscaping Standards and Water Efficient Landscaping" of the City's Municipal Code?	Yes. PDF-4 is provided that requires the project applicant to develop a Landscape Plan that meets the tree planting requirements in Section 16.26

Source: Appendix A

As shown in Table 3.8-3, with implementation of PDF-2 through PDF-4 (provided in Section 2.3), the proposed project is consistent with the CAP Checklist adopted by the City to ensure that the emission targets identified in the CAP are achieved. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and the impact would be less than significant.

3.9 Hazards and Hazardous Materials

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

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

Short-Term Construction Impacts

Less-Than-Significant Impact. In January 2021, a Phase I ESA (Appendix E) was prepared by AEI Consultants in accordance with American Society of Testing and Materials Standards and Standards and

Practices for All Appropriate Inquiries. The Phase I ESA covered the entirety of the project site. Based on the results of the research, available data, and a site survey, the Phase I ESA did not find any evidence of recognized environmental conditions or controlled recognized environmental conditions, and recommended that no further investigation of the project site is necessary. By submitting the Phase I ESA, the project has complied with the City's General Plan EIR mitigation measure HHM-3.

During construction of the project, potentially hazardous materials would likely be handled on the project site. These materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products required to operate and maintain construction equipment. Handling of these potentially hazardous materials would be temporary and would coincide with the short-term construction phase of the project.

Although these materials would likely be stored on the project site, storage would be required to comply with the guidelines set forth by each product's manufacturer and with all applicable federal, state, and local regulations pertaining to the storage of hazardous materials. Consistent with federal, state, and local requirements, the transport of hazardous materials to and from the project site would be conducted by a licensed contractor. Any handling, transport, use, or disposal of hazardous materials would comply with all relevant federal, state, and local agencies and regulations, including the EPA, the California Department of Toxic Substances Control, the California Occupational Safety and Health Administration, Caltrans, the Resource Conservation and Recovery Act, the SCAQMD, and the County Fire Department Hazardous Materials Division. Therefore, short-term construction impacts related to the transport, use, or disposal of hazardous materials would be less than significant.

Long-Term Operational Impacts

Less-Than-Significant Impact. As a residential land use, potentially hazardous materials associated with operation of the project would include those materials typically associated with cleaning and maintenance activities. Although these materials would vary, they would generally include household cleaning products, solvents, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and universal wastes by the EPA, which considers these types of wastes common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and disposed of (EPA 2021). Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of under less-stringent standards than other hazardous wastes, and many of these wastes do not need to be managed as hazardous waste.

In addition, any potentially hazardous material handled on the project site would be limited in quantity and concentration, consistent with other similar residential uses located in the City, and any handling, transport, use, and disposal of such material would comply with applicable federal, state, and local agencies and regulations. In addition, as mandated by the Occupational Safety and Health Administration, all hazardous materials stored on the project site would be accompanied by a Materials Safety Data Sheet, which would inform on-site personnel and residents of the necessary remediation procedures in the case of accidental release (OSHA 2012). Therefore, long-term operational impacts associated with the use, transport, and disposal of hazardous materials would be less than significant.

- 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. Refer to response provided in Section 3.9(a).

- 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?***

No Impact. The nearest school to the project site is Vista Murrieta High School (28251 Clinton Keith Road), which is located approximately 0.3 miles southwest of the project site. Therefore, no impacts associated with emitting or handling hazardous materials within 0.25 miles of a school would occur.

- d) ***Would the project be located on a site that 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. The project site is not included on any hazardous waste site lists, including the California Department of Toxic Substances Control's EnviroStor database, the State Water Resources Control Board's GeoTracker site, the Cortese list, or other lists compiled pursuant to Section 65962.5 of the Government Code (CalEPA 2021; DTSC 2021; SWRCB 2021). Therefore, no impacts associated with hazardous materials sites 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?***

No Impact. The French Valley Airport is located approximately 2.3 miles southeast of the project site. The project site is not located within an airport land use plan or within two miles of a public use airport. Therefore, the project would not result in excessive noise or safety hazards, and no impact would occur.

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

Less-Than-Significant Impact. Currently the City has no defined emergency routes; however, I-15 and I-215 may be considered emergency routes, as they traverse the City and connect to multiple major roads (City of Murrieta 2011a). The I-215 travels north to south through the City and is located approximately 0.5 miles west of the project site.

The City's Emergency Operations Plan (EOP) is designed to ensure the most effective response and allocation of resources in the event of an emergency and is intended to facilitate multi-agency and multi-jurisdictional coordination (City of Murrieta 2017). Murrieta Fire & Rescue also provides emergency preparedness information and safety tips specific to emergency operations. In the event of a major emergency such as fire, hazardous materials spill, police activity, or other situation which may directly impact the City or its residents, the City's Emergency Incident Information website page will contain updated information on the nature of the incident, potential impacts to traffic circulation, possible evacuations, and other pertinent information (City of Murrieta 2011a). The project would comply with the City's EOP for both construction and operation of the project. Construction activities that may temporarily restrict vehicular

traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through and around any required road closures in accordance with the City's EOP.

Upon review and approval of the site plan, the project would not conflict with emergency ingress or egress. Further, adherence to regulatory requirements would ensure that the project would not substantially impair an emergency response plan or emergency evacuation plan, and impacts would be less than significant.

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. The project site is located in a Very High Fire Hazard Severity Zone within a Local Responsibility Area (CAL FIRE 2009). The City General Plan Safety Element, Exhibit 12-8, also establishes the project area as a High Fire Zone (City of Murrieta 2011a). A project-specific fire behavior analysis and conceptual fuel modification plan have been prepared (Appendix I-1 and I-2). Refer to Section 3.20, Wildfire, of this document. Impacts would be less than significant.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

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 Construction associated with the project involves grading activities that would disturb the existing site. Soil erosion could result from such construction activities, thereby potentially affecting the water quality of local downstream waterways and groundwater. The San Diego RWQCB sets water quality standards for all ground and surface waters within the project's region. The project site is located within the Santa Margarita Watershed. Runoff from the City's stormwater system, which includes the project site, discharges into the Warm Springs Creek, Murrieta Creek, and the Santa Margarita River.

Activities associated with the construction of the project would include grading, which may have the potential to release pollutants and silt off site, which could impact water quality. Because the project would disturb 1 or more acres of soil, the project is subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. A SWPPP is required, as part of compliance with the NPDES Permit, to ensure that water quality standards are met and that stormwater runoff from the construction work areas do not cause degradation of water quality in receiving water bodies. The SWPPP consists of BMPs designed to reduce and capture soil erosion under the guidance of a qualified SWPPP practitioner. Sediment control BMPs may include stabilized construction entrances, sediment filters on existing inlets, or the equivalent to reduce erosion impacts. Implementation of the SWPPP and incorporation of BMPs would ensure proper measures are in place to prevent, to the extent feasible, stormwater runoff conveying sediments to downstream receiving waters. Additionally, a Water Quality Management Plan will be prepared and implemented prior to the issuance of grading/building permits, in accordance with the most recently adopted Riverside County Municipal Separate Stormwater Sewer System NPDES Permit. The Water Quality Management Plan will implement measures to ensure water quality standards are met, including implementation of source control and operational BMPs such as designing landscape to minimize irrigation, runoff, and the use of fertilizers; maintaining landscaping using minimal or no pesticides; utilizing covered and leak proof trash dumpsters; sweeping and litter control of loading areas; and collecting wash water containing any cleaning agent or degreaser in order to prevent pollutants from entering runoff. Therefore, short-term construction impacts associated with water quality, stormwater drainage, and stormwater runoff would be less than significant.

Project grading and construction would be completed in accordance with an NPDES-mandated SWPPP, which would include standard BMPs to reduce potential off-site water quality impacts related to erosion

and incidental spills of petroleum products and hazardous substances from equipment. Surface water runoff during project operations would be managed through the use of a proposed underground detention system one on the southeast corner of the project site and the other on the southeast corner of the northern section of buildings. Therefore, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and water quality impacts would be less than significant.

Although impacts would be less than significant, the project is required to adhere to the following applicable hydrology, drainage, and water quality mitigation measures identified in the General Plan EIR.

GP HYD-1 Prior to issuance of any Grading or Building Permit, and as part of the future development's compliance with the NPDES requirements, a Notice of Intent shall be prepared and submitted to the San Diego RWQCB providing notification and intent to comply with the State of California General Construction Permit. Also, a Stormwater Pollution Prevention Plan (SWPPP) shall be reviewed and approved by the Director of Public Works and the City Engineer for water quality construction activities on-site. A copy of the SWPPP shall be available and implemented at the construction site at all times. The SWPPP shall outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable." All recommendations in the Plan shall be implemented during area preparation, grading, and construction. The project applicant shall comply with each of the recommendations detailed in the Study, and other such measure(s) as the City deems necessary to mitigate potential stormwater runoff impacts.

GP HYD-2 Prior to issuance of any Grading Permit, future development projects shall prepare, to the satisfaction of the Director of Public Works and the City Engineer, a Water Quality Management Plan or Stormwater Mitigation Plan, which includes Best Management Practices (BMPs), in accordance with the Riverside County DAMP and the Murrieta WQMP. All recommendations in the Plan shall be implemented during post construction/operation phase. The project applicant shall comply with each of the recommendations detailed in the Study, and other such measure(s) as the City deems necessary to mitigate potential water quality impacts.

- 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?***

Groundwater Supplies

Less-than-Significant Impact. The project site is located within the service area of the EMWD. EMWD produces potable groundwater from two management plan areas within the San Joaquin Groundwater Basin. The project area is not within either of these two management plan areas of the San Joaquin Groundwater Basin (EMWD 2021b). The project site is within the Temecula Valley Groundwater Basin, which is managed by the Murrieta County Water District, with support from other public water agencies, including EMWD (DWR 2004). The proposed project would add four eight-inch water lines that would connect to the existing 12-inch EMWD water line located along Whitewood Road. The proposed project also includes the construction of two on-site biofiltration basins, one on the southeast corner of the project site and the other on the southeast corner of the northern section of buildings of the project site for treatment. During a 100-year storm event, the detention system would be able to capture 100% of the storm event (Appendix F-1).

Additionally, according to the geotechnical investigation (Appendix D), the site has a lack of shallow groundwater, defined as within 50 feet of the ground surface. As such, the project's subsurface construction activities, which would only extend a few feet below grade, are highly unlikely to encounter groundwater, and dewatering activities are not anticipated to be necessary. Therefore, impacts associated with groundwater supplies would be less than significant.

Groundwater Recharge

Less-than-Significant Impact. The project site contains an existing drainage easement in the middle of the project site that promotes groundwater recharge. The project would not alter this existing drainage easement, allowing water to continue to percolate into the subsurface soils compared to the existing conditions. In addition, the project would include two biofiltration basins on the property to capture and partially infiltrate runoff. The Water Quality Management Plan "Infiltration BMP Feasibility" section concludes that the proposed project, including the biofiltration basins with partial infiltration, would not pose a significant risk for groundwater and/or increase the risk of geologic hazards (Appendix F-2). Therefore, impacts associated with groundwater recharge would be less than significant.

- c) ***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:***

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

Less-than-Significant Impact. Under the existing conditions, the project site is undeveloped and contains various elevated areas and depressions. The project would involve grading activities that would bring the project site to a flat grade and the construction of new paved surfaces, residential buildings, and landscape areas. The project would also include a new engineered stormwater drainage system that would feature structural BMPs such as retention facilities to treat and manage stormwater flows. While the project's future drainage conditions would be designed to mimic the existing on-site drainage conditions to the maximum extent practicable, construction activities would inevitably result in changes to the internal drainage patterns of the site. However, the project's future storm drain system will be designed to conform with applicable federal, state, and local requirements related to drainage, hydrology, and water quality. In addition, the project's structural BMPs would be designed such that any potential sediments collected on site would be captured in retention facilities so that they would not be conveyed to downstream waters and result in siltation (Appendix F-2). As such, alteration of the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater, such that it would not result in substantial erosion or siltation on or off site. Therefore, impacts associated with altering the existing drainage pattern of the project site and erosion or siltation would be less than significant.

- ii) ***Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***

Less-than-Significant Impact. As discussed above in Section 3.10(c)(i), the project would inevitably result in changes to the internal drainage patterns of the project site. However, the project's future storm drain system will be designed to conform with applicable federal, state, and local requirements related to drainage, hydrology, and water quality. As such, alteration of the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater.

In addition, according to the Flood Insurance Rate Map No. 06065C2710G for the project area, the project site is located within Zone X, which is defined by the Federal Emergency Management Agency as an area located outside of the 100-year and 500-year flood plains (City of Murrieta 2011a). Therefore, impacts associated with altering the existing drainage pattern of the project site and flooding would be less than significant.

iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less-than-Significant Impact. As previously addressed, the project would inevitably alter the drainage patterns of the project site; however, the project would include a new engineered stormwater drainage system that would be designed to conform with applicable federal, state, and local requirements related to drainage, hydrology, and water quality. Alteration of the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater. Therefore, impacts associated with altering the existing drainage pattern of the project site and stormwater would be less than significant.

iv) *Impede or redirect flood flows?*

Less-than-Significant Impact. The project site is located in Zone X, an area of minimal flood hazard per the Federal Emergency Management Agency FIRM panel 06065C2710G effective August 28, 2008. Zone X is defined as an area located outside of the 100-year and 500-year flood plains (City of Murrieta 2011a). In addition, as previously discussed, although internal drainage patterns would be somewhat altered as a result of project development, the project would maintain adequate stormwater conveyance as to not result in an increase of surface runoff that would result in flooding on- or off-site associated with the 100-year, 24-hour storm event. Therefore, impacts associated with impeding or redirecting flood flows would be less than significant.

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

No Impact. The project site is located approximately 30 miles east of the Pacific Ocean. Because of the project site's inland location, the project would not be subject to tsunamis. Additionally, due to the lack of a larger adjacent perennial waterbody such as a reservoir or lake, the project site would not be susceptible to seiche. Further, the project site's relatively flat topography and lack of nearby hillside would eliminate any impact-related mudflow. Additionally, the project is not located in an area of dam inundation by any of the surrounding reservoirs (City of Murrieta 2011a). Therefore, the project would not risk release of pollutants due to inundation associated with these natural phenomena, and no impacts would occur.

e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less-than-Significant Impact. Refer to responses provided in Section 3.10(a) and 3.10(b). The project would comply with regional and local regulations requiring preparation of a SWPPP and would not obstruct existing water quality control plans or groundwater sustainable management plans. The proposed project would provide two on-site biofiltration basins, which would help the City sustainably manage groundwater levels. Therefore, impacts associated with conflict with a water quality control plan or sustainable groundwater management plan would be less than significant.

3.11 Land Use and Planning

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

a) Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a linear feature (such as a major highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and outlying area. Under the existing condition, the 18.7-acre project site is currently vacant. It is not used as a connection between established communities. Instead, connectivity within the area surrounding the project site is facilitated via local roadways and pedestrian sidewalks. Therefore, no impacts associated with physical division of an established community 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?

No Impact. The City's General Plan designated the project site for Multiple-Family Residential uses and the site is zoned for Multi-Family 2, Residential, per the City's Zoning Code. The proposed project would be consistent with 16.08.010 of the City's Municipal Code which states that this zoning is applied to parcel appropriate for high density multifamily development, in which attached or detached dwelling units may be air-space condominiums, or rented as apartments under single ownership. This zoning is consistent with the Multiple-Family Residential land use designation of the General Plan (City of Murrieta 2021a). As such, the project would be consistent with the City's General Plan and Zoning Code and no impacts would occur.

3.12 Mineral Resources

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

- 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?*

No Impact. According to Exhibit 8-1 in the City's General Plan, there are no known mineral resources located on or nearby the project site (City of Murrieta 2011a). Because there are no known mineral resources within the project site, and the site's land use designation and zoning does not allow for mining, the project would have no impact to mineral resources.

- 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?*

No Impact. There are no known mineral resources located on or near the project site. Accordingly, no impact to the availability of a regionally or locally important mineral resource would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

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

A noise impact analysis was prepared for the proposed project and is provided herein, with Appendix G prepared as a technical appendix that supplements and supports the impact significance findings summarized in the following subsections.

Noise and Vibration Characteristics

To help frame the presentation and discussion of airborne noise and groundborne vibration level metrics, statistical values, impact significance assessment criteria, and quantified prediction results and recommendations, the reader is invited to consult the “Acoustical Fundamentals” section of Appendix G.

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. According to the City’s General Plan, residences, schools, hospitals, rest homes, churches, and some passive recreation areas would typically be considered noise and vibration sensitive and may warrant unique measures for protection from intruding noise (City of Murrieta 2011a). Sensitive receptors in the vicinity of the proposed project site include residential and uses east, southeast, south, and west of the project, with the nearest located approximately 30 feet east of the project. These sensitive receptors represent the nearest sensitive land uses with the potential to be impacted by construction of the proposed project.

Other sensitive uses in the area include Vista Murrieta High School, located approximately 0.3 miles southwest of the proposed project site. This receptor is located further away from the project than the surrounding aforementioned residential uses and, as a result of such increased distance over which project noise would travel and thereby attenuate per established acoustical principles, would be expected to experience less than significant project-related noise impacts.

Existing Noise Conditions

Noise level measurements were conducted in the vicinity of the project site on November 9, 2021 to quantify and help characterize the existing (a.k.a., baseline) outdoor ambient sound environment. Table 3.13-1 provides the locations, dates, and times the noise measurements were taken.

Table 3.13-1. Measured Baseline Outdoor Ambient Noise Levels

Receptors	Location	Date	Time	L _{eq} (dBA)	L _{max} (dBA)
ST1	Southwest area of project site, north of residence at 35758 Whitewood Road	11/9/2021	10:20 a.m.–10:30 a.m.	54.4	61.3
ST2	Northeast area of project site, south of Lee Lane	11/9/2021	10:40 a.m.–10:50 a.m.	40.8	51.9
ST3	Southwest of project site; on public ROW along Whitewood Road, adjacent to 35676 Breda Avenue	11/9/2021	11:10 a.m.–11:20 a.m.	72.5	82

Source: Appendix G.

Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibels; L_{max} = maximum sound level during the measurement interval; ROW = right-of-way.

As shown in Table 3.13-1, the measured sound levels ranged from approximately 41 dBA L_{eq} at ST2 to approximately 73 dBA L_{eq} at ST3. The “Existing Noise Conditions” section of Appendix G provides additional detail on the baseline noise level measurement survey, and includes both a figure illustrating the monitoring locations and photographs of the sound-measuring instrument deployments.

Impact Significance Criteria

The “Applicable Noise Regulations, Standards, and Guidance” section of Appendix G summarizes the relevant federal, State, and local regulations, ordinances, policies, standards, and guidance upon which the following noise and vibration impact significance criteria are based and utilized herein with respect to CEQA “Appendix G” guidelines that frame the assessment of impacts in the proceeding subsections.

- **Construction noise** – The City’s Noise Ordinance includes regulations (Section 16.30.130) that regulate noise from construction activities, and include quantified hourly L_{eq} thresholds that depend on the day of the week, time of day, and type and duration of construction activity. For purposes of this assessment, and because the nearest off-site sensitive receptors are residential properties, exceedance of 75 dBA hourly L_{eq} during allowable construction activity involving mobile equipment from 7:00 a.m. to 8:00 p.m. (except on Sundays and holidays) would be considered a significant noise impact requiring mitigation. If for some reason construction work to occur or continue into the 8:00 p.m. to 7:00 a.m. time period, or at any time on Sunday or a legal holiday, the threshold would be 60 dBA hourly L_{eq}.
- **Construction vibration** – The City’s Noise Ordinance Section 16.30.130(K) prohibits the operation of any device that creates vibration above the City’s established perception threshold of 0.01 inches per second (in/sec) “motion velocity” over the range of 1 to 100 hertz. Assuming this is a root-mean-square value and applies a crest factor of 4 consistent with Federal Transit Administration (FTA) guidance, the corresponding peak particle velocity (PPV) threshold for impact assessment would be 0.04 in/sec and thus comparable to the “barely perceptible” threshold of human response to transient vibration (Caltrans 2020) or the PPV equivalent of the 80 VdB vibration velocity impact level per FTA for infrequent events as received by residences.
- **Off-site traffic noise** – The City’s General Plan Noise Element land use compatibility guidelines indicate that low-density and multi-family residential land uses are considered *normally acceptable* with noise levels below 60 dBA community noise equivalent level (CNEL) and *conditionally acceptable* with noise levels below 70 dBA CNEL.

- **Off-site operation noise** – Section 16.30.090 of the City’s Noise Ordinance establishes the following exterior noise limits, due to aggregate operation of project on-site stationary sources, at a receiving residential property: 45 dBA hourly L_{eq} at night (10:00 p.m. to 7:00 a.m.) and 50 dBA hourly L_{eq} during the day (7:00 a.m. to 10:00 p.m.).
- **Allowable outdoor ambient noise increase** – Although the City does not quantify limits on “substantial” temporary or permanent increase in outdoor ambient sound level attributed to a development such as the project, guidance from the Federal Interagency Committee on Noise suggests that changes of 2 dB to 5 dB would be considered acceptable (and thus, less than significant) depending on the magnitude of the pre-existing outdoor sound environment as follows: +5 dB if the baseline outdoor ambient noise level is less than 60 dBA, +3 dB if the baseline ranges between 60 and 65 dBA, and +2 dB if the baseline already exceeds 65 dBA.

- 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?*

Short-Term Construction Noise

Less-than-Significant with Mitigation Incorporated. Using specific construction equipment assumptions similar to those as used for the air quality analysis (Section 3.3), a predictive noise analysis was performed using a model emulating the Roadway Construction Noise Model (RCNM) that was developed by the Federal Highway Administration (FHWA 2008). Input variables for RCNM consist of the receiver/land use types, the equipment type (i.e., backhoe, crane, truck, etc.), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of each time period the equipment typically is in operation and operating at full load or power level), and the distance between the construction noise source and the sensitive receiver. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were adopted for this noise analysis.

For this analysis, the distance variable was assumed to represent the horizontal distance between the closest possible equipment or vehicular position of the studied construction activity and the nearest noise-sensitive receiving structure. Also, in a manner similar to the FTA “two loudest” general assessment technique, no more than one piece of the anticipated types of equipment per phase could be at this closest possible distance—in other words, the equipment cannot unrealistically “stack” at a boundary line. Under these conditions, Table 3.13-2 provides a summary of the predicted construction noise exposure levels, by listed phase of activities, at the nearest noise-sensitive receptor that appears to be the residence at 35621 Epple Street. The input and output data are provided in Appendix G.

Table 3.13-2. Construction Noise Model Results Summary

Construction Phase (and distance in feet to nearest noise-sensitive receptor)	Estimated Construction Noise (hourly L_{eq} dBA) at the Nearest Residential Structure	
	<i>without</i> mitigation (no temporary sound barrier)	<i>with</i> mitigation (8-foot-tall temporary barrier)
Site Preparation (50 feet)	83	71
Grading (50 feet)	86	74
Building Construction (85 feet)	74	n/a

Table 3.13-2. Construction Noise Model Results Summary

Construction Phase (and distance in feet to nearest noise-sensitive receptor)	Estimated Construction Noise (hourly L_{eq} dBA) at the Nearest Residential Structure	
	<i>without mitigation</i> (no temporary sound barrier)	<i>with mitigation</i> (8-foot-tall temporary barrier)
Paving (85 feet)	73	n/a
Architectural Coating (85 feet)	68	n/a

Source: Appendix G.

Notes: L_{eq} = equivalent continuous sound level; dBA = A-weighted decibel; n/a = not applicable.

As shown in Table 3.13-2, predicted construction noise levels at the nearest noise-sensitive land use (the aforementioned existing residence just east of the project site) are estimated to range from approximately 68 dBA L_{eq} during the architectural coating phase to approximately 86 dBA L_{eq} during the grading phase. These estimated construction noise levels indicate that, during the relatively brief periods when construction takes place at or near the eastern project boundary during the site preparation and grading phases, the unmitigated noise levels for would exceed the City's daytime construction noise standards for mobile equipment (i.e., 75 dBA for single-family residences). This would represent a potentially significant direction impact.

However, with implementation of noise reduction measures, such as a temporary eight foot-tall sound barrier (e.g., plywood sheeting or suspended acoustical blanket) installed between the potentially affected residential property and the project site along the eastern boundary, where a water retention basin and new housing are planned, the "with mitigation" values in Table 3.13-2 show that mitigated noise levels would be less than 75 dBA and thus result in a less-than- significant impact with implementation of Mitigation Measure MM-NOI-1.

Project-Generated Off-Site Traffic Noise

Less-than-Significant. The proposed project would generate additional traffic trips along several existing roads in the area including Whitewood Road and Lee Lane. Potential noise effects from vehicular traffic associated with a variety of project-related operational scenarios were assessed using FHWA TNM version 2.5 (FHWA 2004). Data used to model existing noise from vehicular traffic was derived from the Lincsoth Law and Greenspan Traffic Impact Analysis Report (Appendix H-1) and project-related trip generation was calculated using the Institute of Transportation Engineers 10th Edition Trip Generation Manual (ITE 2017).

Traffic noise levels were modeled at the representative noise-sensitive receivers (ST1, ST2, and ST3 as displayed in Figure 1, Noise Measurement Locations of Appendix G). The receiver was modeled to be five feet above the local ground elevation. TNM modeling input and output files are provided in Appendix G. Traffic noise impacts were calculated by comparing the existing baseline modeled results with the existing plus project results. The results are presented in Table 3.13-3.

Table 3.13-3. Modeled Traffic Noise With and Without Project (CNEL)

Modeled Receiver	Description	Existing (dBA)	Existing with Project (dBA)	2023 Cumulative (dBA)	2023 Cumulative with Project (dBA)	2023 Difference (dB)
ST1	Southwest area of project site, north of residence at 35758 Whitewood Road	52.3	52.6	53.1	53.8	0.7
ST2	Northeast area of project site, south of Lee Lane	47.1	47.5	48.0	48.7	0.7
ST3	Southwest of project site; on public ROW along Whitewood Road, adjacent to 35676 Breda Avenue	68.6	69	69.6	70.1	0.5

Source: Appendix G

Note: CNEL = community noise equivalent level; dBA = A-weighted decibels; ROW = right of way.

As shown in Table 3.13-3, typical existing traffic noise levels would not significantly increase as a result of the proposed project. At the nearby modeled receivers, project-related noise levels would increase by less than 1 dB. This is because additional project trips associated with the proposed project would be relatively few in number compared to existing traffic along nearby segments of Whitewood Road and Lee Lane. Changes in noise level of this order (less than 1 dB) would not be audible, and within the allowable 2 dB increase in CNEL as allowed by Federal Interagency Committee on Noise recommendations, since the residential receptors are within an area already in excess of 60 dBA CNEL as supported by aforementioned baseline measurements and the City's General Plan Noise Element traffic noise contours. Therefore, the traffic noise level increase associated with the project is considered less than significant.

Project-Generated Off-Site Operation Noise

Stationary Sources

Less-than-Significant. The implementation of the project would also result in changes to existing outdoor ambient noise levels in the project vicinity by introducing new stationary sources of noise emission primarily associated with operating electro-mechanical equipment exposed to the outdoor environment. Aggregate sound emission from proposed project stationary noise-producing sources was predicted with a Dudek-developed outdoor sound propagation prediction model that emulates commercially available software such as Datakustik CadnaA and is similarly based on International Organization of Standardization (ISO) 9613-2 standard algorithms and reference data. Using Applicant-provided information on the quantities of planned occupied residential units and the onsite buildings housing common amenities, and making reasonable assumptions regarding the likely quantities and types of outdoor-exposed (e.g., roof-mounted) mechanical systems (e.g., HVAC units), the predicted aggregate noise exposure from the modeled operating stationary sources at the nearest existing offsite residences to the east and southwest is 41.8 dBA and 43.1 dBA, respectively.

At these predicted noise exposure levels, which are compliant with the City's nighttime noise threshold of 45 dBA for single-family residences, potential impacts would be considered less than significant.

Additionally, stationary source noise emission levels at these magnitudes are less than the acoustical contribution from roadway traffic, and would therefore yield a less-than-significant impact with respect to raising the existing outdoor ambient sound level.

MM-NOI-1 Construction Noise Mitigation. The project applicant and/or its construction contractor shall comply with the following measures during construction of the northern onsite water retention basin:

1. Construction activities shall not occur between the hours of 8:00 p.m. and 7:00 a.m. Monday through Saturdays.
2. All operating noise-producing construction equipment and vehicles using internal combustion engines should be equipped with exhaust mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition that meet or exceed original factory specification.
3. Construction equipment noise associated with site preparation and operating within 90 feet of the existing residence at 35621 Epple Street, and grading equipment operating within 130 feet of this same receiver, shall be shielded with installation of an eight foot-tall temporary noise barrier along the project boundary shared by this residential property and having sufficient mass, density, and/or solidity to yield a minimum sound transmission class (STC) rating of 22.

Proper implementation of MM-NOI-1 would be expected to result in reduced construction noise levels as appearing in the right-most column of Table 3.13-2.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-Than-Significant Impact. Groundborne vibration typically attenuates rapidly over short distances, as the propagation expression is as follows per FTA guidance:

$$PPV_{rcvr} = PPV_{ref} * (D_{ref}/D_{rcvr})^W$$

In the above expression, PPV_{rcvr} is the vibration velocity level at the studied receiver location some D_{rcvr} distance (in feet) from the vibration source, while PPV_{ref} is the reference vibration velocity magnitude for the source at the indicated reference distance (D_{ref}). The Wiss exponent (W) is, per FTA guidance, equal to a value of 1.5 and reflects the subsurface soil/strata conditions along the path between the source and receiver.

Since the previous impact discussion for construction noise identified the closest source-to-receptor distance as being 50 feet, and the expected heavy construction equipment involved for site preparation or grading would be akin to a bulldozer, backhoe, or front-end loader having a reference vibration velocity level of 0.089 in/sec PPV at a distance of 25 feet, the above expression can be populated to estimate the construction vibration exposure level at the nearest residential structure as follows:

$$PPV_{rcvr} = 0.089 * (25/50)^{1.5} = 0.031 \text{ in/sec}$$

At this magnitude, the vibration velocity complies with the City's threshold of 0.04 in/sec PPV (or 0.01 in/sec, if expressed as a root-mean-square of the signal) and would thus be considered a less-than-significant-impact.

- c) ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. The project site is not located within the vicinity of a private airstrip. Additionally, the closest airport to the project site is the French Valley Airport, located approximately 2.3 miles southeast of the project site. According to the Riverside County Airport Land Use Commission, the project is not located within the airport land use plans for the French Valley Airport. In addition, the Noise Contour Map provides the 55 CNEL contours of the French Valley Airport, which is located more than two miles from the project site (RCALUC 2007). Therefore, no impacts associated with airport and aircraft noise would occur.

3.14 Population and Housing

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

- 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)?***

Less-Than-Significant Impact.

Direct Impacts

According to SCAG's 2020–2045 RTP/SCS growth forecast, the City is projected to add approximately 14,100 people, 7,800 households, and 20,900 jobs in the future, based on regional demographic and economic assumptions (SCAG 2020). Specifically, SCAG's forecast indicated the population will increase from the 2016 population of 113,600 to the projected 2045 population of 127,700 (an increase of 12%).

The project would directly induce population growth in the City by constructing a 324-unit multifamily residential community on a property that is currently zoned for multifamily residential uses. According to SCAG, the average household size in the City is 3.3 persons (SCAG 2019). Using this factor of 3.3 persons per household, the project could support a residential population of approximately 1,070 persons. By

comparison to SCAG's growth forecast, the project's 1,070 additional residents would represent 7.5% of the projected growth in the City. As such, the project's direct population growth does not constitute a substantial unplanned population growth within the City, therefore, direct impacts to population growth would be less than significant.

Indirect Impacts

The project would not lead to indirect growth, as the project does not propose substantial infrastructure improvements that would allow for additional unplanned growth in the area. It is noted that the surrounding area has already been developed for residential uses, and the project site is designated and zoned for multifamily residential uses. Therefore, impacts related to substantial population growth would be less than significant.

- b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. Given that no residential uses are located on the project site, the project would not displace existing housing, nor would it impede future residential development potential. Therefore, no impacts associated with the displacement of people or housing would occur.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
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:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

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

Direct Impacts

Fire protection?

Less-Than-Significant Impact. City of Murrieta Fire & Rescue provides fire protection services within the City of Murrieta. There are five fire stations that provide fire and emergency medical services to the City.

The nearest fire station is Station 4 (28155 Baxter Road), which provides fire protection services to the project site and is located approximately 0.5 miles northwest of the project site (City of Murrieta 2011a). According to the City's General Plan EIR, fire protection for the City at buildout should be feasible based on existing fire stations, with potentially some additional equipment (City of Murrieta 2011b).

The General Plan EIR finding is based on continuing to be able to meet 90% of urban calls within a 6.5-minute target response time. The project site is within a distance where any future calls could feasibly be responded to within 6.5 minutes. Additionally, incremental impacts would be mitigated through payment of the Development Impact Fee's fire facilities component. Further, Murrieta Fire & Rescue must review this project to ensure that adequate fire flow would occur at the project site as a part of the project review and approval process. Therefore, impacts associated with the need for new or expanded Murrieta Fire & Rescue facilities would be less than significant.

Police protection?

Less-Than-Significant Impact. The Murrieta Police Department provides police protection services within the City of Murrieta (City of Murrieta 2011a). According to the City's General Plan EIR, law enforcement protection for the City at buildout should be feasible based on incremental expansion of the number of officers, with potentially some additional office space at the police station at 1 Town Square (City of Murrieta 2011b). The project site is located within existing patrol routes, and the nearest police station is located approximately four miles southwest of the project site.

Based on the proximity of the project site to other residential developments, and since the project site is located in a developed part of the City that is within the service area of the Murrieta Police Department, it is anticipated that the project could be served without adversely affecting personnel-to-resident ratios, response times, or other performance objectives. Additionally, incremental impacts would be mitigated through payment of the Development Impact Fee's law enforcement component. Therefore, impacts associated with the need for new or expanded Murrieta Police Department facilities would be less than significant.

Schools?

Less-Than-Significant Impact. The City of Murrieta is served by four public school districts: the Murrieta Valley Unified School District, the Menifee Union School District, the Perris Union High School District, and the Hemet Unified School District. The project site is within the boundaries of the Menifee Union School District and the Perris Union High School District, and the assigned resident schools are Oak Meadows

Elementary School (grades K–5), Bell Mountain Middle School (grades 6–8), and Liberty High School (grades 9–12¹³) (City of Murrieta 2011b; Perris Union High School District 2022).

Menifee Union School District would serve students in grades kindergarten through 8th grade who would reside on the project site, while Perris Union High School District would serve students in grades 9th grade through 12th grade. According to the California Department of Education, during the 2019/2020 school year, Oak Meadows Elementary School had 930 students enrolled and Bell Mountain Middle School had 1,118 students enrolled (CDE 2021). The City's General Plan EIR indicates that these schools have an operating capacity of 1,034 students, 1,546 students, respectively (City of Murrieta 2011b). Liberty High School's operating capacity was not defined by the City's General Plan EIR because the school was not opened until August 2021. Due to the recent opening of Liberty High School, there is no current enrollment data for the school. As such, these schools are expected to have existing capacity and facilities for additional student enrollment.

The estimated school generation rates¹⁴ for the project are as follows based on the generation rates included in the City's General Plan EIR:

- The project would generate between 52 to 292 elementary school students
- The project would generate between 50 to 98 middle school students
- The project would generate between 52 to 197 high school students

The project is consistent with the underlying land use and zoning anticipated for the project site, and the City's school generation estimates are based on the General Plan 2035's buildout projections. Nonetheless, the project would be subject to SB 50, which requires the payment of mandatory impact fees to offset any impact to school facilities. In accordance with SB 50, the project applicant would pay its fair share of school impact fees based on the number of proposed dwelling units and square footage per Government Code Section 65995(h). Therefore, impacts associated with the need for new or expanded school facilities would be less than significant.

Although impacts would be less than significant, the project is required to adhere to the following applicable school facilities mitigation measure identified in the General Plan EIR.

GP SCH-1 Prior to the issuance of certificate of occupancy, individual project applicants shall submit evidence to the City of Murrieta that legally required school impact mitigation fees have been paid per the mitigation established by the applicable school district.

Parks?

Less-Than-Significant Impact. The project would include a 324-unit multifamily residential complex that would house approximately 1,070 residents. At least a portion of these residents are anticipated to patronize various public parks and recreational facilities located in proximity to the project site. However, the project would include park and recreation amenities that would support some of the new residents' park and recreation needs. Additionally, the project would be required to comply with the payment of any

¹³ Liberty High School opened in August 2021 to 9th and 10th grade students. For the 2022-23 school year, the school will serve 9th-11th grade, and for the 2023-24 school year, all four grade levels will be present (Liberty High School 2022).

¹⁴ Generation rates include low-end and high-end student ranges provided by MVUSD, PUSD, HUSD, December 2010 (City of Murrieta 2011b).

required Quimby Act fees to enhance park and recreation facilities within the City. Further, the project is consistent with the underlying land use and zoning anticipated for the project site, and the City's long-range park planning projects would accommodate for project residents to use various recreational facilities throughout the City. Therefore, impacts associated with the need for new or expanded park facilities would be less than significant.

Other public facilities?

Less-Than-Significant Impact. As previously stated, the project would include amenities that would support some of the new residents' other public facility needs. The project would incrementally add to the existing demand for library services. These incremental needs are mitigated through the payment of the Development Impact Fee, which contains a library component. Payment of Development Impact Fee is deemed adequate mitigation for the project as it will offset future demand generated by potential new residents. Therefore, impacts associated with the need for new or expanded public facilities would be less than significant.

Indirect Impacts

The project is consistent with the underlying land use and zoning anticipated for the project site, as discussed in Section 3.11, Land Use and Planning. The City's General Plan 2035's buildout projections were used as baseline assumptions for public services, and full buildout was determined to be feasible. Therefore, indirect impacts related to public services would be less than significant.

3.16 Recreation

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

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

Less-Than-Significant Impact.

Direct Impacts

The project would include a 324-unit multifamily residential complex that would house approximately 1,070 residents. At least a portion of these residents are anticipated to patronize various public parks and recreational facilities located in proximity to the project site. However, the project would include park and recreation amenities that would support some of the new residents' park and recreation needs.

Indirect Impacts

The project would be required to comply with the payment of any required Quimby Act fees to enhance park and recreation facilities within the City. Further, the project is consistent with the underlying land use and zoning anticipated for the project site, and the City's long-range park planning projects would accommodate for project residents to use various recreational facilities throughout the City.

Therefore, impacts associated with the increased use of existing recreational facilities would be less than significant.

- 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?*

Direct Impacts

Less-Than-Significant Impact. The project site is vacant with no existing recreational facilities on or near the project site and is designated for multifamily residential use. The project would not include any recreational facilities beyond those installed for resident and resident guest use only. These on-site amenities would be within the project site and are part of the project. Any potential environmental impacts related to the construction and operation of these on-site recreational amenities are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical impacts beyond those already disclosed in this document would occur as a result of implementation of the project's on-site recreational facilities. Therefore, impacts associated with the construction or expansion of recreational facilities would be less than significant.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

- 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. As detailed in the following text, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

City of Murrieta General Plan Circulation Element

The following goals were developed and included in the General Plan Circulation Element to achieve a balanced transportation system that adequately services the growth and development anticipated in the Land Use Element (City of Murrieta 2011a):

Goal CIR-1: A circulation system that serves the internal circulation needs of the City, while also addressing the inter-community or through travel needs (Policy CIR-1.1 through CIR-1.14).

Goal CIR-2: A comprehensive circulation system that promotes safety (Policy CIR-2.1 through CIR-2.14).

Goal CIR-3: Circulation systems that preserve the quality of residential neighborhoods (Policy CIR-3.1 through CIR-3.6).

Goal CIR-4: Financing programs provide adequate funding for the City's roadway system (Policy CIR-4.1 through CIR-4.3).

Goal CIR-5: A supported regional transportation system that serves existing and future travel between Murrieta and other population and employment centers within southwest Riverside County and the larger region, and that accommodates the regional travel needs of developing areas outside the City (Policy CIR-5.1 through CIR-5.14).

Goal CIR-6: Alternative travel modes and facilities are available to serve residents and employers/employees and reduce vehicle miles traveled (Policy CIR-6.1 through CIR-6.15).

Goal CIR-7: Residential areas and activity centers are accessible to all pedestrians, including persons with disabilities or having special accessibility needs (Policy CIR-7.1 through CIR-7.9).

Goal CIR-8: Development, expansion, and maintenance of a network of bicycle, pedestrian, and multi-use trails that allows residents to travel between parks, schools, neighborhoods, and other major destinations without driving (Policy CIR-8.1 through CIR-8.15).

Goal CIR-9: An adequate supply of private off-street and public parking (Policy CIR-9.1 through CIR-9.6).

The project would not be inconsistent with any program, plan, or policy related to the above-mentioned goals nor would it preclude the City from implementing adopted transportation-related programs, plans, or policies.

Additionally, the City strives to maintain the LOS standard per policies under Goal CIR-1 (City of Murrieta 2011a):

CIR-1.2: Maintain a Level of Service “D” or better at all intersections during peak hours. Maintain a Level of Service “E” or better at freeway interchanges during peak hours.

CIR-1.3: Maintain an average daily traffic (ADT) Level of Service “C” or better for all roadway segments. As an exception, LOS “D” may be allowed in the North Murrieta Business Corridor, Clinton Keith/Mitchell, Golden Triangle North (Central Murrieta), South Murrieta Business Corridor, or the Multiple Use 3 Focus Areas, or other employment centers. LOS “D” may be allowed only at intersections of any combination of Secondary roadways, Major roadways, Urban Arterial roadways, Expressways, conventional state highways, or freeway ramps.

Although the City’s LOS policy would not be applicable as a transportation impact under CEQA per SB 743, the study area intersection and roadway segment operations analysis were conducted as part of the project’s TIA (Appendix H-1). Figure 6 illustrates the traffic study area intersection and roadway segments. The project would be responsible for making half-width frontage improvements along Lee Lane and Greenberg Place. An analysis of Existing Plus Project and Near Term plus Project conditions, and the project’s proportional fair-share of the improvement costs of the affected intersection is included in the TIA.

Transit, Bicycle, and Pedestrian Facilities

Riverside Transit Agency provides public transit bus service in the City of Murrieta. The bus stops nearest to the project are located along Clinton Keith Road, just east of Bronco Way on the south side of the roadway and just west of Bronco Way on the north side of the roadway. Route 61 provides service from Perris to Temecula; via Promenade Mall, Hancock Avenue and Los Alamos Road, McElwain Road at Super Target, Mt. San Jacinto College Menifee, Cherry Hills Boulevard and Bradley Road, Encanto Drive and McCall Boulevard, and Perris Station Transit Center. During the weekday AM and PM peak hours, Route 61 has approximate headways of 80 minutes in the northbound and southbound directions.

There is an existing Class II striped bike lane which provides an exclusive roadway space for cyclists, demarcated through pavement marking and signage currently exists along Whitewood Road between Keller Road and Clinton Keith Road. Linnel Lane, west of Whitewood Road, does not currently have any designated bicycle facilities. The City of Murrieta General Plan 2035 Circulation Element “identifies measures to implement bicycle and pedestrian networks in the City, allowing residents to travel from neighborhoods to key destinations without having to use their personal automobiles.” Per the City of Murrieta General Plan 2035 Circulation Element, Whitewood Road, between Keller Road and Clinton Keith Road, is recommended in the future to remain a Class II striped bike lane and Linnel Lane, west of Whitewood Road, is recommended in the future as a Class II striped bike lane. The proposed project will be consistent with the

City of Murrieta General Plan 2035 Circulation Element, which will provide bicyclists direct connectivity to the project.

Pedestrian connection to the surrounding residential developments is provided via existing public sidewalks along the west side of Whitewood Road in the vicinity of the project. The intersection of Whitewood Road at Linnel Lane/Lee Lane currently provides crosswalks along the western, southern, and eastern legs which provides pedestrians safe and convenient access from the project site across Whitewood Road and/or Linnel Lane/Lee Lane. It should be noted that future sidewalks along the project frontage on Whitewood Road, Lee Lane and Greenberg Place will be installed in conjunction with the project. These future sidewalks along Whitewood Road, Lee Lane and Greenburg Place will connect to the project's internal walkways. The existing sidewalk system within the project vicinity provides direct connectivity to the surrounding residential communities, as well as public transit along Clinton Keith Road. The intersection of Whitewood Road at Linnel Lane/Lee Lane currently provides crosswalks along the western, southern, and eastern legs which currently provides and will continue to provide pedestrians safe and convenient access from the project site across Whitewood Road and/or Linnel Lane/Lee Lane.

The project would not conflict with any plans or policies regarding existing or proposed bicycle or pedestrian facilities in the study area and would be consistent with the City's General Plan Circulation Element. As previously discussed, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and impacts would be less than significant.

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

Less-Than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: land use projects, transportation projects, qualitative analysis, and methodology. The Updated CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts," and define VMT as "the amount and distance of automobile travel attributable to a project." "Automobile" refers to on-road passenger vehicles, specifically cars and light trucks. The Governor's Office of Planning and Research has clarified in its Technical Advisory (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

The proposed project would consist of a 324-unit multifamily apartment complex with 116 units located on the north side of the project site (i.e., north units) and 208 units located on the south side of the project site (i.e., south units). As shown in Table 3.17-1, would generate approximately 2,372 new daily trips. The proposed project would be categorized under CEQA Guidelines Section 15064.3(b)(1), as a land use project, for the purpose of VMT analysis. A project's VMT analysis follows the guidelines are contained within the City of Murrieta Traffic Impact Analysis Preparation Guidelines, dated May 2021, and provides the screening criteria and methodology for VMT analysis.

Project Type Screening Criteria

The City's VMT analysis guidelines suggest that projects can be exempt from requiring a detailed VMT analysis based on an initial type of screening (City of Murrieta 2021b). Consistent with The Governor's Office of Planning and Research Technical Advisory, projects that meet the screening thresholds based

on their location and project type may be presumed to result in a less-than-significant transportation impact (OPR 2018).

As stated previously, the proposed project consists of a 324-unit multifamily apartment complex and therefore, does not satisfy any of the City's Project Type Screening criteria mentioned in the following:

- Local Serving Retail: Local serving retail projects less than 50,000 square feet
- Local-serving retail that primarily serves the City and/or adjacent cities
- Office and other employment-related land uses reducing commutes outside the local area
- Local-serving day care centers, pre-K and K-12 schools
- Local parks and civic uses
- Local-serving gas stations, banks and hotels (e.g., non-destination hotels)
- Local serving community colleges that are consistent with SCAG RTP/SCS assumptions
- Student housing projects
- Projects generating less than 110 daily trips: As shown in Table 3.17-1, the project would generate approximately 2,372 total daily trips, 149 AM peak-hour trips (34 inbound and 115 outbound), and 181 PM peak-hour trips (114 inbound and 67 outbound). Because the project would generate more than 110 trips per day, it cannot be assumed to cause a less-than-significant transportation impact.

Table 3.17-1. Project Trip Generation

Land Use	Size/Units	Daily ¹	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates ¹								
ITE 220: Multifamily Housing (Low-Rise)	Per DU	7.32	23%	77%	0.46	63%	37%	0.56
Trip Generation								
Multifamily Housing – North Units	116 DUs	849	12	41	53	41	24	65
Multifamily Housing – South Units	208 DUs	1,523	22	74	96	73	43	116
Total Proposed Project Trip Generation	324 DUs	2,372	34	115	149	114	67	181

Notes: DU = dwelling unit.

¹ Daily trip rates from ITE Trip Generation Manual, 10th Edition

Based on the City's VMT guidelines, the project consists of a 324-unit multifamily apartment complex and does not satisfy any of the aforementioned City's Project Type Screening criteria. Therefore, it requires a limited analysis of the VMT expected to be generated by the project and compare that to the VMT expected to be generated by the land use assumed in the General Plan.

VMT Impact Threshold

The comparison of project's land use and VMT to the General Plan would result in one of two outcomes as follows:

- VMT is less than the land use assumed in the General Plan – Therefore, less than significant VMT impact and no need for further analysis in a TIA for VMT
- VMT is more than the land use assumed in the General Plan – Therefore, likely significant VMT impact and need for full analysis in a TIA for VMT

VMT Limited Analysis

Based on coordination with City of Murrieta Traffic Engineering staff, the VMT Limited Analysis confirms whether or not the project is consistent with the General Plan (i.e., land use and zoning) and whether or not the project exceeds the development envelope assumed in the 2040 General Plan for the Traffic Analysis Zone (TAZ) that the project site is located within. If the proposed project is consistent with the assumptions in the 2040 General Plan Buildout condition and is within the 2040 General Plan development envelope, no further VMT analysis is required. Based on information provided by City of Murrieta Planning Department staff, the current land use designation for the project site is Multi-Family Residential and the current zoning designation for the project site is MF-2, which are both consistent with the General Plan.

Figure 7 presents the Murrieta Model TAZ's map from the City of Murrieta Focused General Plan Update Traffic Impact Analysis. As shown in the project TAZ Detail portion of Figure 7, the proposed project site is located within TAZ #43423602. TAZ #43423602 is bounded by Linnel Lane to the north, Clinton Keith Road to the south, Whitewood Road to the west and Menifee Road to the east. The proposed project site is generally located in the northwest corner of TAZ #43423602.

Figure 8 presents an aerial photograph of the boundary for TAZ #43423602 and illustrates the approximate number of existing homes within the project TAZ. Review of Figure 8 shows that approximately 22 single family homes currently exist within the TAZ. Based on information provided by City of Murrieta Traffic Engineering staff, 1,550 households are the total households development envelope assumed in the 2040 General Plan for TAZ #43423602. Of this total, there are 204 single family households and 1,346 multifamily households. Given that TAZ #43423602 currently only has 22 existing single-family homes and the proposed project would consist of a 324-unit multifamily apartment complex, the 1,550-household development envelope assumed within the 2040 General Plan will not be exceeded. Since the proposed project is consistent with the land use and zoning assumptions in the 2040 General Plan and the project development tabulation is well within the permitted 2040 General Plan development envelope, the VMT Limited Analysis conducted by LLG Engineers concluded that no further VMT analysis is required per the City's guidelines (Appendix H-2).

Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and impacts 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. The proposed project would be accessed via driveways (shown on Figure 4, Proposed Site Plan) along Whitewood Road, Lee Lane and Greenburg Place. Vehicular access to the 116

north units will be provided via one full access unsignalized driveway located along Lee Lane (i.e., Project Driveway No. 1) and via one right-turn in/right-turn out only unsignalized driveway located along Whitewood Road (i.e., Project Driveway No. 2). Vehicular access to the 208 south units will be provided via one right-turn in/right-turn out only unsignalized driveway located along Whitewood Road (i.e., Project Driveway No. 3) and via one full access unsignalized driveway located along Greenburg Place (i.e., Project Driveway No. 4).

As shown in project TIA (Appendix H-1), all four project driveways are forecast to operate at acceptable LOS C or better during the AM and PM peak hours under near-term (Year 2023) cumulative traffic conditions. As such, project access will be adequate. Vehicles and all users entering and exiting the project site would be able to access comfortably, safely, and without undue congestion.

The on-site circulation was evaluated in terms of vehicle-vehicle and vehicle-pedestrian conflicts. Based on LLG's review of the proposed site plan, the on-site circulation layout of the proposed project is adequate. Curb return radii for the project driveways have been confirmed and are generally adequate for passenger cars, emergency vehicles, and trash/delivery trucks and would be constructed in accordance with the City's applicable roadway standards and engineering practices.

As such, no hazardous design features or incompatible uses would be part of the project. Therefore, impacts associated with hazardous design features or incompatible uses in conjunction with the implementation of improvements would be less than significant.

d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. All areas of the project site would be accessible to emergency responders during construction and operation. Access to the project site would be provided via the Whitewood Road, Lee Lane and Greenburg Place. There would be adequate access to the project site as well as to all the proposed buildings via internal roadway including access for emergency vehicles. As mentioned in Section 3.20, Wildfire, the project would not conflict with the City's EOP for both construction and operation of the project. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through and around any required road closures in accordance with the City's EOP. The proposed site plan, including the new on-site roadway and proposed parking lot, would be designed per standard width, clearance, and turning radius requirements, and would be reviewed and approved by the fire department during plan check review. Adherence to these requirements would ensure that impacts due to inadequate emergency access are below a level of significance. Therefore, impacts associated with inadequate emergency access would be less than significant.

3.18 Tribal Cultural Resources

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

The evaluation of potential impacts to Tribal Cultural Resources is based on the findings resulting from tribal consultation conducted by the City of Murrieta (City), as the lead agency, as well as the findings of the Cultural Resources Technical Report completed by Dudek in 2022 (Appendix C).

Relevant Plans, Policies, and Ordinances

Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A tribal cultural resource (TCR) is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

AB 52 formalizes the lead agency-tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report by contacting those tribal groups who have previously provided formal written request for notification of projects under the agency's jurisdiction.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation shall include those topics (PRC Section 21080.3.2[a]). Finally, the environmental document, for which the tribal consultation is focused, and the mitigation monitoring and reporting program (where applicable), developed in consideration of information provided by tribes during the formal consultation process, shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Native American Coordination

Sacred Lands File Search

The Sacred Lands File (SLF) record is maintained at a public land survey system Section level meaning the negative or positive result is respective of a general area covering approximately one-square mile (640 acres) rather than the exact proposed Project site. Therefore, as part of the process of identifying cultural resources within or near the proposed Project, the results of an SLF search that was previously completed for another project immediately adjacent to the east of the present Project site was referenced (completed January 13, 2022). The SLF search was conducted by to determine the presence of any reported Native American cultural resources within the proposed Project site as listed in the California Native American Heritage Commission (NAHC) maintained SLF. The NAHC SLF records search results were positive. However, as previously stated, the SLF record is maintained at a PLSS Section level, which indicates a recorded sacred site could be anywhere within this one square mile (640 acre) area. The NAHC identified twenty-three (23) Native American individuals who would potentially have specific knowledge as to whether or not Native American cultural resources are identified within the study area that could be at-risk. Informal outreach has not been initiated with the individuals on the NAHC's contact list, in regard to the current proposed Project site. However, in compliance with AB 52, the City has contacted all NAHC-listed traditionally geographically affiliated tribal representatives that have requested project notification and is discussed in the following section

Assembly Bill 52 Consultation

The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed project. All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City on July 22, 2021, via the United States Postal Service (USPS) and email. The notification letters contained a Project description, outline of AB 52 timing, an invitation to consult, a Project site plan, and contact information for the appropriate lead agency representative. Table 3.18-1 summarizes the results of the AB 52 process for the Project.

Table 3.18-1. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
Agua Caliente Band of Cahuilla Indians	Letter/email sent July 22, 2021	Response received on August 3, 2021 via email. Deferred to the other Tribal nations in the area.	As no request to consult was received, consultation was concluded.
Morongo Band of Mission Indians	Letter/email sent July 22, 2021	No Response	As no response was received, consultation was concluded.
Pechanga Band of Luiseno Indians	Letter/email sent July 22, 2021	Request for consultation.	Consultation call on March 2, 2022. Follow-up consultation call on April 27, 2022. Follow-up consultation call after site visit on June 28, 2022. In-person consultation meeting on September 14, 2022. Follow-up consultation call on November 1, 2022. Follow-up consultation call on November 7, 2022. Follow-up consultation call on November 10, 2022. Follow-up consultation call on November 14, 2022. Consultation ongoing.
Rincon Band of Luiseno Indians	Letter/email sent July 22, 2021	Request for consultation.	Consultation call on January 6, 2022. Follow-up consultation call on July 13, 2022. Consultation concluded November 17, 2022.
Soboba Band of Luiseno Indians	Letter/email sent July 22, 2021	No Response	As no response was received, consultation was concluded.

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

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

Less-Than-Significant Impact with Mitigation Incorporated. A detailed summary of the cultural resource investigation conducted for the assessment and evaluation of cultural resources can be found in Section 3.5.

The EIC and NAHC SLF search results, including the pedestrian survey of the Project site were positive for the presence of cultural resources (archaeological and Tribal cultural resources) within and surrounding the Project site. The results of the EIC search of the CHRIS database revealed that a total of five (5) prehistoric archaeological resources were identified within the Project site. The intensive-level pedestrian survey, conducted under fair (approximately 50 percent) ground surface visibility, resulted in the identification of two (2) bedrock milling features and two (2) isolate artifacts comprised of chipped stone flakes. Additionally, three (3) newly identified resources were identified as a result of the additional site visit/opportunistic survey conducted by the City, Dudek and Tribal representatives. A review of available historical maps and aerial photographs indicates that the proposed Project site has not been subjected to development or major ground disturbing activities and has remained vacant and undeveloped since at least 1901. Moreover, a review of the geotechnical report prepared for the Project states the site is generally underlain by hard crystalline bedrock, with surficial deposits of topsoil, colluvium, and alluvium (or gabbro) approximately 2 to 3 ft thick. No artificial or engineered fill soils were encountered as a result of the subsurface exploratory investigations conducted as part of the geotechnical study. Finally, subsurface archaeological testing was conducted immediately adjacent to the bedrock milling resource features and resulted in a negative finding for the presence of subsurface archaeological deposits.

The EIC and NAHC SLF search results, including the pedestrian survey of the Project site were positive for the presence of cultural resources (archaeological and Tribal cultural resources) within and surrounding the Project site. The results of the EIC search of the CHRIS database revealed that a total of five (5) prehistoric archaeological resources were identified within the Project site. The intensive-level pedestrian survey, conducted under fair (approximately 50 percent) ground surface visibility, resulted in the identification of two (2) bedrock milling features and two (2) isolate artifacts comprised of chipped stone flakes. Additionally, three (3) newly identified resources were identified as a result of the additional site visit/opportunistic survey conducted by the City, Dudek and Tribal representatives. A review of available historical maps and aerial photographs indicates that the proposed Project site has not been subjected to development or major ground disturbing activities and has remained vacant and undeveloped since at least 1901. Moreover, a review of the geotechnical report prepared for the Project states the site is generally underlain by hard crystalline bedrock, with surficial deposits of topsoil, colluvium, and alluvium (or gabbro) approximately 2 to 3 ft thick. No artificial or engineered fill soils were encountered as a result of the subsurface exploratory investigations conducted as part of the geotechnical study. Finally, subsurface archaeological testing was conducted immediately adjacent to the bedrock milling resource features and resulted in a negative finding for the presence of subsurface archaeological deposits.

As a result of a previous investigation, resources P-33-013332/CA-RIV-7424 and P-33-013333/CA-RIV 7425 were subjected to testing and evaluation. The results of that investigation in 2004 determined that

these two resources are not historical or unique archaeological resources under CEQA. However, the intensive-level pedestrian survey conducted in support of the current proposed Project resulted in the identification of four (4) newly identified prehistoric archaeological resources and the site visit requested by the Tribe resulted in the identification of three (3) newly identified tribal cultural resources. Subsurface testing of the newly identified bedrock milling features was conducted in 2022 which, as previously mentioned, resulted in a negative finding for subsurface cultural deposits. The remaining two (2) newly identified cultural resources are isolates and by definition under CEQA, are not historical or unique archaeological resources. All but one of the bedrock milling features do not meet the threshold for significance in accordance with CEQA. One bedrock milling feature does have the potential to be eligible for inclusion in the California Register of Historical Resources. However, the potentially eligible resource will be avoided through project design as well as P-33-013332/CA-RIV-7424, P-33-013334/CA-RIV-7426 and a portion of P-33-013333/CA-RIV-7425.

No previously recorded archaeological resources of Native American origin 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) were identified within Project improvement areas. The mitigation measures provided below address the protocols and procedures to be carried out for the proper treatment of Tribal cultural resources that may be encountered inadvertently as a result of Project implementation. With the incorporation of mitigation measures MM-TCR-1 through MM-TCR-11, impacts associated with Tribal cultural resources 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) would be less than significant.

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

Less-Than-Significant Impact with Mitigation Incorporated. The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process and requires lead agencies to provide notification of proposed projects to California Native American Tribal representatives that have requested such notifications. As previously summarized in Table 3.18-1, the City received three responses as a result of the notification letters. Of the responses received, two Tribes, Pechanga Band of Luiseño Indians and Rincon Band of Luiseño Indians, responded with their input on potential Project impacts to TCRs and requested formal consultation. As a result of the consultation process conducted separately with both requesting Tribes, it was determined that through implementation of MM-TCR-1 through MM-TCR-11, impacts to potentially significant TCRs as determined by the Lead Agency would be reduced to less than significant with mitigation incorporated.

Prior to the commencement of construction activities for all phases of project implementation, the project applicant/owner/developer shall retain a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, is approved by the City of Murrieta – Planning Division, and has the experience and is well-acquainted with the history of the ancestral tribes geographically connected to the Project site referred to here on as “Principal Investigator/Archaeologist”. NOTE: For purposes of proper implementation of the following mitigation measures, the term “Consulting Tribes” is defined pursuant to PRC 21080.3.1 as California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site that may have expertise concerning their tribal cultural

resources AND have requested and participated in formal AB 52 consultation for the Project. The tribes that fulfill this definition for this Project include the Pechanga Band of Luiseño Mission Indians and the Rincon Band of Luiseño Indians.

The selected Principal Investigator/Archaeologist, and tribal cultural resources monitor(s) shall be retained to implement the following mitigation measures:

MM-TCR-1 Cultural Resource Monitoring Plan. At least thirty (30) days prior to the submittal of the final grading plans to the City, the Project Applicant, Principal Investigator/Archaeologist, Project Tribal Cultural Monitor(s), and designated project planner from the City of Murrieta will meet and develop a Cultural Resources Monitoring Plan (CRMP or Plan) for the treatment and mitigation of cultural resources during Project development. Treatment of the resource(s) will be consistent with the terms and provisions of the mitigation and CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Principal Investigator/Archaeologist will circulate the draft CRMP to the assigned planner and Consulting Tribes for review and comment. The final document will include methods and practices and other appropriate issues that may be relevant to the culturally appropriate treatment of the resources. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r).

The Plan is to outline a program of treatment and mitigation of the known and inadvertently found cultural resources during ground-disturbing phases (throughout the duration of the Project. This plan will define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all Project site plans intended for use by those conducting the ground-disturbing activities. The Plan will also include the conditions under which monitoring is required pursuant to MM-CUL-3 and MM-TCR-3 and the manner of facilitation.

The CRMP will include/address each of the following:

- a) Project description and location
- b) Project grading and development scheduling;
- c) Roles and responsibilities of individuals on the Project;
- d) The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;
- e) The protocols and stipulations that the contractor, City, Consulting Tribes and Principal Investigator/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 resource's evaluation.
- f) The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
- g) Contact information of relevant individuals for the Project;
- h) details of the relocation and controlled grading operations.

MM-TCR-2 Worker Environmental Awareness Program. All construction personnel and monitors who are not trained archaeologists or tribal cultural monitors shall be briefed regarding inadvertent discoveries prior to the start of construction activities. The purpose of the

Workers Environmental Awareness Program (WEAP) training is to provide the construction personnel with brief review of the cultural sensitivity of the project and the surrounding area; what resources could be potentially identified during earthmoving activities; the requirements of the monitoring program; the protocols to follow during the construction of the project and explain the importance of and legal basis for the protection of significant archaeological and tribal cultural resources, and who to contact if and when the cultural resources are identified. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, archaeological, and tribal cultural monitor(s).

MM-TCR-3 Native American Monitoring. At least 30 days prior to issuance of a grading permit the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground-disturbing activities. The applicant/owner/developer shall secure agreements with the Consulting Tribes for Tribal Monitoring. The agreement shall include, but not limited, outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal monitors during ground disturbing activities. The copy of the signed agreement shall be provided to the City Planner and Building official prior to issuance of the first grading permit. The Native American Monitor has the authority to temporarily divert and stop earth moving activities in the event that suspected cultural resources are unearthed. The Native American Monitor(s) will be responsible for maintaining weekly monitoring logs, the Developer shall identify an individual on site to sign the weekly logs.

MM-TCR-4 ESA Fencing. Prior to any earthmoving activities, milling features P-013332, P-013333, P-013334 will be fenced and identified as an Environmentally Sensitive Area (ESA). The Project Applicant will ensure that appropriate temporary fencing is installed (i.e., orange fabric/barrier fencing) to prevent any unintentional disturbances to these features during any earthmoving activities on the project site. The fencing will be installed before clearing and grubbing and will not be removed until all earthmoving activities have been completed. The Principal Investigator/Archaeologist and Tribal Monitor will be on site to monitor the fence installation and removal and will conduct daily inspections of the fencing to make sure that it is intact and has not been breached. If the Principal Investigator/Archaeologist and/or Tribal Monitor identify a breach of the fence, i.e., removal, cut, depressed, driven over or intentionally breached in any way, all work within a 25-foot buffer shall cease and the Project Applicant, City, Principal Investigator/Archaeologist and the Consulting Tribes shall meet and confer as to the best method to repair the fencing. The person(s) responsible for the breach and the Construction Supervisor (or appropriate supervisory personnel) shall be required to retake the sensitivity training provided at the beginning of construction, in addition to any other remedies considered appropriate. If as a result of soil preparation testing, adjustment of the ESA fencing is deemed necessary, consultation with the Tribal Representative(s) and Principal Investigator/Archaeologist with the concurrence of the City Planner shall occur to determine any necessary treatment or mitigation, if any, consistent with the procedures outlined in the established mitigation measures.

MM-TCR-5 **Inadvertent Discovery Clause.** If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribes. Tribal cultural resources are excluded from the definition of unique cultural resources as those resources are defined by the tribal values ascribed to them by their affiliated communities. Treatment of tribal cultural resources inadvertently discovered during the project's ground-disturbing activities shall be subject to the consultation process required by state law and AB 52.

- a) All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the Project Applicant, the Principal Investigator/Archaeologist, the Tribal Representative(s), and the Community Development Director to discuss the significance of the find.
- b) At the meeting, the significance of the discoveries shall be discussed and after consultation with the Tribal Representative(s) and the Principal Investigator/Archaeologist, a decision shall be made, with the concurrence of the City Planner, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.
- c) Further ground disturbance, including but not limited to grading, trenching etc., shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal Monitors if needed.
- d) Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the Consulting Tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/Mitigation Measures.
- e) If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Principal Investigator/Archaeologist, in consultation with the Consulting Tribes, and shall be submitted to the City for their review and approval prior to implementation of the said plan.
- f) Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Project Applicant and the Consulting Tribes cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Planner for decision. The City Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Principal Investigator/Archaeologist and shall take into account the cultural and religious principles and practices of the Consulting Tribes. Notwithstanding any other rights available under the law, the decision of the City Planner shall be appealable to the City

Planning Commission and/or City Council. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM-TCR-6 **Final Disposition.** In the event that Native American Cultural resources are identified during Project earthwork and ground-disturbing activities, the following procedures shall be carried out for final disposition; One or more of the following treatments, in order of preference, shall be employed in consultation with the Consulting Tribes. Evidence of such shall be provided to the City of Murrieta.

1. Preservation-In-Place of the cultural resources. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resource(s).
2. Reburial of the cultural resource(s) on the Project property. The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.
3. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM-TCR-7 **Relocation of Resources.** It is understood by all parties that cultural features with the temporary identification numbers Whitewood-BMF 1, -BMF 2 cannot be avoided and will be relocated on-site. The Consulting Tribes shall work with the Principal Investigator/ Archaeologist, the developer, and the grading contractor or appropriate personnel to determine a reasonable methodology for relocating these features. Attempts will be made to excavate and relocate these boulders to the open space as identified in Figure A, should their size and depth permit. If the boulders cannot be moved intact due to feasibility

constraints, an attempt will be made to transversally cut into them so as to free the exposed prehistoric features, allowing the feature itself and the broken pieces of the boulder(s) to be relocated to the open space as identified in Figure A. The current Department of Parks and Recreation (DPR) forms shall be updated, detailing which features were relocated, the process taken, and updated maps provided documentation of the features' new location. The site record should clearly indicate that the features are not in their original location and why they were relocated.

MM-TCR-8 **Controlled Grading and Grubbing.** All grading shall be controlled in areas of concern as determined by the Principal Investigator/Archaeologist and the Consulting Tribes and as reflected in figure B. The identified area shall be inspected by the Principal Investigator/Archaeologist and Native American monitor prior to initiating grading for those areas. Grading shall be controlled within the Environmentally Sensitive Buffer Area using a slope board or similar equipment to allow soil to be removed in increments of only a few inches at a time. Other areas which may require controlled grading shall be determined by the Principal Investigator/Archaeologist and the Native American monitor(s) based on the results and soil types identified during grading. Should any changes be needed, an updated exhibit will be produced and approved by all parties prior to any ground disturbance in the newly identified area.

MM-TCR-9 **Phase IV Report.** Prior to final inspection, the Principal Investigator/Archaeologist is to submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with the Planning Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Planning Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Planning Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribes' Cultural Resources Departments.

MM-TCR-10 **Human Remains.** In the event that human remains are inadvertently encountered during construction activities, all work is to immediately stop and no further disturbance shall occur in the area until the County Coroner has made the necessary findings as to origin. The remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to immediately notify the Native American Heritage Commission (NAHC). The NAHC must immediately notify those persons it believes to be the most likely descendant (MLD). The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

- MM-TCR-11 **Non-Disclosure.** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

3.19 Utilities and Service Systems

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

- a) ***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. The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities for the reasons discussed in the following subsections.

Water Facilities

Less-Than-Significant Impact. The project involves the construction of a 324-unit multifamily residential community, which would increase demand for water supply on the project site. Water service would be provided by the EMWD, and there is an existing EMWD 12-inch water line within Whitewood Road. According to the EMWD 2020 Urban Water Management Plan (UWMP), the anticipated demand for water supply within EMWD's service area is anticipated to be greater than the demand for water in the future, which indicates that EMWD has available capacity to serve the proposed project (see Section 3.19(b)). The project's nominal contribution to the total water demand could be served by existing water facilities serving the project area without requiring new or expanded facilities. Additionally, a will serve letter dated January 4, 2021, stated that EMWD is willing to provide water services to the project. Therefore, impacts associated with the construction or expansion of water facilities would be less than significant.

Wastewater Treatment Facilities

Less-Than-Significant Impact. Wastewater collection would be provided by EMWD, and there is an existing 15-inch sewer line within Whitewood Road. Two private sewer lift stations would be constructed on the project site, which was analyzed as a part of the project. Wastewater generated at the project site would be treated at the Temecula Valley Regional Water Reclamation Facility (TVRWRF), which is owned and operated by EMWD. TVRWRF provide tertiary treatment for an estimated 14 million gallons per day (mgd) of wastewater. The facility is permitted a total capacity of 28 mgd (EMWD 2021a). Wastewater generated by the project would represent only a nominal percentage of the TVRWRF average dry-weather flow capacity and average wastewater flow. Wastewater generated by the project could flow to the TVRWRF via existing sewer lines. Additionally, a will serve letter dated January 4, 2021 stated that EMWD is willing to provide sewer services to the project. Thus, the project would not require or result in the relocation or construction of new wastewater treatment facilities that would cause significant environmental effects. Therefore, impacts would be less than significant.

Stormwater Drainage Facilities

Less-Than-Significant Impact. Two existing 60-inch storm drains run underneath Whitewood Road and discharges into the existing drainage easement in the middle of the project site. Although new stormwater drainage facilities would be constructed, these improvements are part of the project analyzed herein, and as such, any potential environmental impacts related to these components of the project are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical effects beyond those already disclosed in this IS/MND would occur as a result of implementation of the project's stormwater drainage system improvements. Therefore, impacts associated with stormwater drainage facilities would be less than significant.

Electric Power Facilities

Less-Than-Significant Impact. Electric power service would be provided to the project site by SCE. The City is served by three SCE substations, with the closest being the Auld Substation, located approximately 1.4 miles southeast of the project site.

At full built-out, the project's operational phase would require electricity for building operations (appliances, lighting, etc.). Additionally, the project would meet the Title 24 Energy Efficiency Standards that require the roofs of the proposed structures to be "solar-ready", as indicated in Table 3.6-2 within Section 3.6, Energy, above. In addition, the project would be required to comply with the 2016 Title 24 standards or the most recent standards at the time of building permit issuance. The energy-using fixtures within the project would likely be newer technologies, using less electrical power. Additionally, a will serve letter dated December 24, 2020, stated that SCE is willing to provide electric power services to the project. Therefore, impacts associated with electrical power facilities would be less than significant.

Natural Gas Facilities

Less-Than-Significant Impact. Natural gas would be provided by Southern California Gas. The project would comply with 2016 Title 24 building energy efficiency standards, reducing energy used in the state. Based on compliance with Title 24, the project would generate a need for natural gas that is consistent with multifamily homes. Additionally, a will serve letter dated January 21, 2021, stated that Southern California Gas is willing to provide natural gas services to the project. Therefore, impacts associated with natural gas facilities would be less than significant.

Telecommunications Facilities

Less-Than-Significant Impact. The City is served by multiple telephone service providers. Since the project site is in an urbanized area and is nearby other residential uses, there are existing telecommunication facilities that would be able to serve the project site. Additionally, a will serve letter dated December 8, 2020, stated that Charter Communications is willing to provide telecommunication services to the project. Once the project is completed, the residents of the project would be able to connect to existing telecommunication services without the need for expansion or construction of new facilities. Therefore, impacts associated with telecommunications facilities 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. The project site would receive its water supply from the EMWD. Based on the 2020 UWMP, EMWD receives its water from groundwater, recycled water, desalinated groundwater, and imported water from the Metropolitan Water District of Southern California. Imported water is delivered from three Metropolitan Water District distribution feeders (EMWD 2021b).

Since the main source of water for the site is imported water, supply availability is dependent on precipitation. However, customer demands do vary with local rainfall. In general, water demand tends to increase in dry years, primarily due to increased water activities such as landscape irrigation. Thus, to assess the reliability of their water supply service, every urban water supplier is required to assess its water

service under normal, dry, and multiple-dry water years. Table 3.19-1 provides water demand and supplies for dry- and multiple-dry-year scenarios for the Eastern Municipal Water District.

Table 3.19-1. Multiple Dry Years Supply and Demand Comparison (Acre-Feet per Year)

Dry Year Scenario	Supply and Demand	2025	2030	2035	2040	2045
First Year	Supply Totals	151,130	162,820	174,700	184,700	193,300
	Demand Totals	151,130	162,820	174,700	184,700	193,300
	Difference	0	0	0	0	0
Second Year	Supply Totals	132,700	143,300	153,700	162,500	170,300
	Demand Totals	132,700	143,300	153,700	162,500	170,300
	Difference	0	0	0	0	0
Third Year	Supply Totals	134,900	145,500	155,500	164,100	171,900
	Demand Totals	134,900	145,500	155,500	164,100	171,900
	Difference	0	0	0	0	0
Fourth Year	Supply Totals	137,100	147,600	157,400	165,700	173,500
	Demand Totals	137,100	147,600	157,400	165,700	173,500
	Difference	0	0	0	0	0
Fifth Year	Supply Totals	140,200	150,800	160,000	168,000	175,800
	Demand Totals	140,200	150,800	160,000	168,000	175,800
	Difference	0	0	0	0	0

Source: EMWD 2021b, Table 7-7.

According to the 2020 UWMP, EMWD coordinates on an ongoing basis with all relevant agencies in the region to optimize the use of regional water supplies. In addition, EMWD has its own conservation programs to reduce demand on water sources. The UWMP also describes the water shortage contingency plan for the EMWD in the event of a drought or a catastrophic supply interruption. The details of the Water Shortage Contingency Plan are provided as an appendix of the 2020 UWMP. With the projects and programs implemented by EMWD and the City, water supplies are projected to meet full-service demands (see Table 3.19-1) (EMWD 2021b).

Because the City's water demands can be met under multiple dry years, and because supply would meet projected demand due to diversified supply and conservation measures, the project's water demands would be served by the City's projected current and future supplies. Therefore, the project would have sufficient water supplies available during normal, dry, and multiple dry years. Impacts 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. A significant impact would occur if the wastewater treatment provider indicates that a project would increase wastewater generation to such a degree that the capacity of the facilities currently serving the project site would be exceeded. As described in Section 3.19(a), wastewater generated at the project site would be treated at the TVRWRF, which is owned and operated by EMWD. TVRWRF provides tertiary treatment for an estimated 14 mgd of wastewater. The facility is permitted a total

capacity of 28 mgd (EMWD 2021a). Wastewater generated by the project would represent only a nominal percentage of the TVRWRF average dry-weather flow capacity and average wastewater flow. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

Although impacts would be less than significant, the project is required to adhere to the following applicable wastewater mitigation measures identified in the General Plan EIR.

GP WW-1 Prior to issuance of a wastewater permit for any future development project, the Project Applicant shall pay applicable connection and/or user fees to RCWD, EVMWD, WMWD, or EMWD.

GP WW-2 Prior to issuance of a building permit for any future development project, the Project Applicant shall prepare an engineering study to support the adequacy of the sewer systems and submit the engineering study to the City for review and approval. Any improvements recommended in the engineering study shall be installed prior to the certificate of occupancy for the development project.

GP WW-3 Prior to issuance of a building permit for any future development project, the Project Applicant shall provide evidence that the RCWD, EVMWD, WMWD, or EMWD has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.

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. A significant impact may occur if a project were to increase solid waste generation to such a degree that existing and projected landfill capacities would be insufficient to accommodate the additional solid waste.

According to the City General Plan EIR, solid waste generated by multifamily residential uses in the City is collected by Waste Management of the Inland Empire. Additionally, Waste Management provides waste collection services for single-family residential uses, commercial, and industrial waste in the City. Solid waste is sent to El Sobrante Landfill in Riverside County, approximately 22 miles from the City. Waste Management also disposes solid waste to Badlands Sanitary Landfill as an alternate. The total permitted throughput for both landfills is 20,854 tons per day, and approximately 160 million cubic yards of capacity remain, as listed in Table 3.19-2 (CalRecycle 2019).

Table 3.19-2. Existing Landfills

Landfill	Location	Estimated Closing Year	Maximum Permitted Daily Load (tons per day)	Current Remaining Capacity (cubic yards)
El Sobrante Landfill	Corona	2051	16,054	143,977,170
Badlands Sanitary Landfill	Moreno Valley	2022	4,800	15,748,799
Total			20,854	159,725,969

Source: CalRecycle 2019

The project involves the construction of a 324-unit multifamily residential community with associated improvements. Project construction would involve some generation of waste during demolition; however, in accordance with AB 939, the construction contractor would ensure that source reduction techniques and recycling measures are incorporated into project construction. Once operational, the project would result in waste typically associated with multifamily residences. According to the California Department of Resources Recycling and Recovery, multifamily residences generate approximately four pounds per dwelling unit per day (CalRecycle 2019). Thus, it is anticipated the project would generate approximately 1,296 pounds of solid waste per day, or 236.5 tons per year. This number is nominal compared to the combined 20,854 daily disposal tonnage at El Sobrante and Badlands Landfill. In addition, this amount does not factor in any recycling or waste diversion programs. Solid waste generated by the project would not generate waste in excess of state or local standards. Therefore, impacts associated with landfill capacity 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. All collection, transportation, and disposal of solid waste generated by the project would comply with all applicable federal, state, and local statutes and regulations. Under AB 939, the Integrated Waste Management Act of 1989, local jurisdictions are required to develop source reduction, reuse, recycling, and composting programs to reduce the amount of solid waste entering landfills. Local jurisdictions are mandated to divert at least 50% of their solid waste generation into recycling.

In addition, the state has set an ambitious goal of 75% recycling, composting, and source reduction of solid waste by 2020. To help reach this goal, the state has adopted AB 341 and AB 1826. AB 341 is a mandatory commercial recycling bill, and AB 1826 is mandatory organic recycling. Waste generated by the project would enter the City's waste stream but would not adversely affect the City's ability to meet AB 939, AB 341, or AB 1826, since the project's waste generation would represent a nominal percentage of the waste created within the City. Therefore, impacts associated with solid waste disposal regulations would be less than significant.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
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?	☐	☐	☒	☐

The project site is located in a Very High Fire Hazard Severity Zone within a Local Responsibility Area (CAL FIRE 2009). The City General Plan Safety Element, Exhibit 12-8, also establishes the project area as a High Fire Zone (City of Murrieta 2011a). As such, the following analysis addresses the potential project impacts related to wildfire.

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. Currently the City has no defined emergency routes; however, Interstate(s) I-15 and I-215 may be considered emergency routes, as they traverse the City and connect to multiple major roads (City of Murrieta 2011a). The I-215 travels north to south through the City and is located approximately 0.5 miles west of the project site.

The City's Emergency Operations Plan (EOP) is designed to ensure the most effective response and allocation of resources in the event of an emergency and is intended to facilitate multi-agency and multi-jurisdictional coordination (City of Murrieta 2017). The nearest fire station is Station 4 (28155 Baxter Road), which provides fire protection services to the project site and is located approximately 0.5 miles northwest of the project site (City of Murrieta 2011a). Murrieta Fire & Rescue also provides emergency preparedness information and safety tips specific to emergency operations. In the event of a major emergency such as fire, hazardous materials spill, police activity, or other situation which may directly impact the City or its residents, the City's Emergency Incident Information website page will contain updated information on the nature of the incident, potential impacts to traffic circulation, possible evacuations, and other pertinent information (City of Murrieta 2011a). The project would comply with the City's EOP for both construction and operation of the project. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through and around any required road closures in accordance with the City's EOP.

Upon review and approval of the site plan, the project would not conflict with emergency ingress or egress. The project would be accessed off of Greenberg Place for the southern portion of the site and Lee Lane for the northern portion. Further, adherence to regulatory requirements would ensure that the project would

not substantially impair an emergency response plan or emergency evacuation plan, and impacts would be less than significant.

Although impacts would be less than significant, the project is required to adhere to the following applicable wildland fire hazard mitigation measures identified in the General Plan EIR.

GP FP-3 Adequate access to all buildings on the project site shall be provided for emergency vehicles during the building construction process.

b) *Due to slope, prevailing winds, and other factors, would the project 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. The project site is located in a Very High Fire Hazard Severity Zone, which has been designated by the California Department of Forestry and Fire Protection based on factors such as fuel, terrain/slope, weather, and other relevant factors (CAL FIRE 2007). There have been several fires near the project site in the past 100 years, but only one fire burned onto or through the project site, the Lee Fire in August of 1998 (Appendix I-1). In addition to the project's location in a fire-prone area of Southern California, the project site and surrounding area are topographically diverse. The project area is characterized as lowlands between the Hogbacks to the southeast and Greer Ranch Hills to the northwest. The existing project site is flat from a fire behavior perspective, and therefore would not exacerbate wildfire risk (Appendix I-1). The predominant wind direction in the project area varies throughout the year. From early February through mid-November, the prevailing wind direction is from the west, and from mid-November to early February the prevailing wind direction is from the east. The predominant winds in the project area are the onshore and offshore flow, and the site is subject to Santa Ana winds. Strong winds (25-30 mph) can come from any direction, but the stronger winds are from the offshore Santa Ana wind events (Appendix I-1). The windier part of the year lasts for approximately seven months (mid-November through mid-June), with average wind speeds of more than 5.6 miles per hour (WeatherSpark 2021). Although fuels are limited in quantity, the existing fuels on or near the project site are grasses, grass/shrub mixtures and riparian areas. The worst-case fire conditions exist when topography, fuels and wind are in alignment, which would not occur on the project site (Appendix I-1).

Construction

Construction of the project would introduce potential ignition sources to the project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the project would be required to comply with City and state requirements for activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. The project would comply with Chapter 33 of the California Fire Code, Fire Safety During Construction and Demolition. Per Section 15.24.250 of the City's Municipal Code, Fuel Modification Zone Requirements, adequate defensible space (100 foot setback) must be created before bringing any combustible materials on to the project site, and vegetation management must take place throughout the duration of project construction. Implementation of the regulatory standards set forth in the City's Municipal Code would reduce the risk of wildfire ignition and spread on the project site during construction activities. Therefore, with adherence to City Code, project construction would not exacerbate wildfire risk, and impacts related to project construction would be less than significant.

Although impacts would be less than significant, the project is required to adhere to the following applicable wildland fire hazard mitigation measures identified in the General Plan EIR.

GP FP-2 Brush clearance shall be conducted prior to initiation of construction activities in accordance with Murrieta Fire Department requirements.

GP FP-4 Adequate water availability shall be provided to service construction activities.

Operation

Based on the Fire Behavior Analysis modeling prepared for the project, it was determined that it is possible for the project site to experience flame lengths of just under 18 feet under the worse-case scenario (Appendix I-1). The combination of limited fuels, lack of slope, alignment of the wind, and the nature of the fuel, the project site's risk of wildfire would be less than significant. Additionally, remaining vulnerabilities would be protected by fuel modification and ignitions resistant construction.

With implementation of standard measures to reduce fire risk, compliance with local and state regulations related to fire safety, routine fuel modification inspections, and upon Murrieta Fire & Rescue's review and approval of the fire master plan, the project would not exacerbate wildfire risks. As such, despite its location in a fire hazard area, the project would not expose project occupants to pollutant concentrations or the uncontrolled spread of a wildfire. Additionally, the proposed project's homeowners' association would perform fire prevention maintenance for all fuel modification zones as outlined in the project's conceptual Fuel Modification Plan (Appendix I-2). By preparing a Fuel Modification Plan, the project has complied with City's GP EIR mitigation measure FP-1.

- c) ***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. The project would involve the construction and operation of a new residential development, consisting of 44 residential buildings, recreation and leasing buildings, pool areas, a dog park, fire pits, children's playground, and associated parking. The project would require the construction of project driveways and roadways. It is not anticipated that installation or maintenance of the roads would exacerbate fire risk, since the area is surrounded by developed land to the west and the roads would enhance access to the area by firefighters. The construction of project driveways and roadways would adhere to Chapter 33 of the California Fire Code and Section 15.24 of the City's Municipal Code. Further, the project site is located in a predominately developed area and would connect to existing utilities. As discussed in Section 3.19, Utilities and Service Systems, the project would not directly require or result in the relocation or construction of new or expanded utility facilities. Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed throughout this document, and impacts would be less than significant.

- d) ***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. Development of the site would result in grading to a level surface, altering the existing drainage pattern of the site. However, the project would not substantially increase the rate or

amount of surface runoff in a manner that would result in flooding on or off site. Due to the proposed grading of the site, with the incorporation of on-site water retention basins; the relatively flat surrounding lands; and the fact that the site would be paved for development and parking, it is unlikely that the project would exposed people or structures to downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

3.21 Mandatory Findings of Significance

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

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

Less-Than-Significant With Mitigation Incorporated. The project site generally lacks suitable habitat for most special-status species known from the surrounding region due to a combination of unsuitable habitat conditions and the high level of human activity in the area. One special-status species, long-spined spineflower, was observed onsite. Three special-status wildlife species were determined to have a low

potential to occur onsite; none of these species were detected onsite. Impacts on the following biological resources were determined to be potentially significant without mitigation: nesting birds; burrowing owl; CDFW jurisdictional non-wetland waters of the state; and to trees protected under the City of Murrieta Municipal Code. Implementation of mitigation measure MM-BIO-1 would reduce impacts on nesting birds to less than significant. Implementation of PDF-5 and PDF-6 and payment of the MSHCP Development Mitigation Fee would reduce impacts on the MSHCP and burrowing owls to less than significant. Implementation of mitigation measure MM-BIO-2 would reduce impacts on jurisdictional non-wetland waters to less than significant. Implementation of MM-BIO-3 would reduce impacts on protected trees to less than significant.

The project site is currently vacant, therefore, development of the proposed project would not diminish the historical significant of the site.

Impacts on archaeological resources that may be buried in site soils were determined to be potentially significant without mitigation. Such impacts would be less than significant after implementation of mitigation measures MM-CUL-1 through MM-CUL-9 and MM-TCR-3.

Impacts on human remains were determined to be potentially significant without mitigation. Such impacts would be less than significant after implementation of mitigation measures MM-CUL-10 and MM-CUL-11.

Impacts on tribal cultural resources that may be buried in site soils were determined to be potentially significant without mitigation. Such impacts would be less than significant after implementation of mitigation measures MM-TCR-1 through MM-TCR-11.

As described throughout this IS/MND, with the incorporation of the identified mitigation measures, the project would not degrade the quality of the environment, would not substantially reduce the habitats of fish or wildlife species, would not cause a fish or wildlife population to drop below self-sustaining levels, would not threaten to eliminate a plant or animal, and would not eliminate important examples of major periods of California history or prehistory. Therefore, impacts would be less than significant with mitigation incorporated.

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

Less-Than-Significant With Mitigation Incorporated. When evaluating cumulative impacts, it is important to remain consistent with Section 15064(h) of the CEQA Guidelines, which states that an EIR must be prepared if the cumulative impact may be significant and the project’s incremental effect, though individually limited, is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Alternatively, a lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable through mitigation measures set forth in an MND or if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The proposed project would potentially result in project biological, cultural, and noise impacts that could be potentially significant without the incorporation of mitigation. Thus, when coupled with biological, cultural, tribal cultural, and noise impacts related to the implementation of other related projects throughout the broader project area, the project would potentially result in cumulative-level impacts if these significant impacts are left unmitigated.

However, with the incorporation of mitigation identified herein, the project's impacts to biological resources, cultural resources, and noise would be reduced to less-than-significant levels and would not considerably contribute to cumulative impacts in the greater project region. In addition, these other related projects would presumably be bound by their applicable lead agency to comply with all applicable federal, state, and local regulatory requirements and incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Although cumulative impacts are always possible, the project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable; therefore, the project would result in individually limited, but not cumulatively considerable, less-than-significant impacts with mitigation incorporated.

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

Less-Than-Significant With Mitigation Incorporated. Implementation of the project would have potentially significant impacts on nesting birds, burrowing owl, CDFW jurisdictional non-wetland waters of the state, and to trees protected under the City of Murrieta Municipal Code. Implementation of mitigation measures MM-BIO-1 through MM-BIO-3, in addition to PDF-5 and PDF-6 would reduce these impacts to less than significant.

Archaeological resources may be buried in project site soils and could be damaged by ground-disturbing activities. This potentially significant impact would be reduced to a less than significant level with implementation of mitigation measures MM-CUL-1 through MM-CUL-9 and MM-TCR-3.

Human remains may be buried in project site soils and could be damaged by ground-disturbing activities. This potentially significant impact would be reduced to a less than significant level with implementation of mitigation measures MM-CUL-10 and MM-CUL-11.

Tribal cultural resources may be buried in project site soils and could be damaged by ground-disturbing activities. This potentially significant impact would be reduced to a less than significant level with implementation of mitigation measures MM-TCR-1 through MM-TCR-11.

Project construction would generate noise at nearby residences would exceed the City's daytime construction noise standards for mobile equipment. Implementation of mitigation measure MM-NOI-1 would reduce this impact to less than significant.

As evaluated throughout this IS/MND, with incorporation of mitigation identified herein, all environmental impacts associated with the project would be reduced to less-than-significant levels. Thus, the project would not directly or indirectly cause substantial adverse effects on human beings. Impacts would be less than significant with mitigation incorporated.

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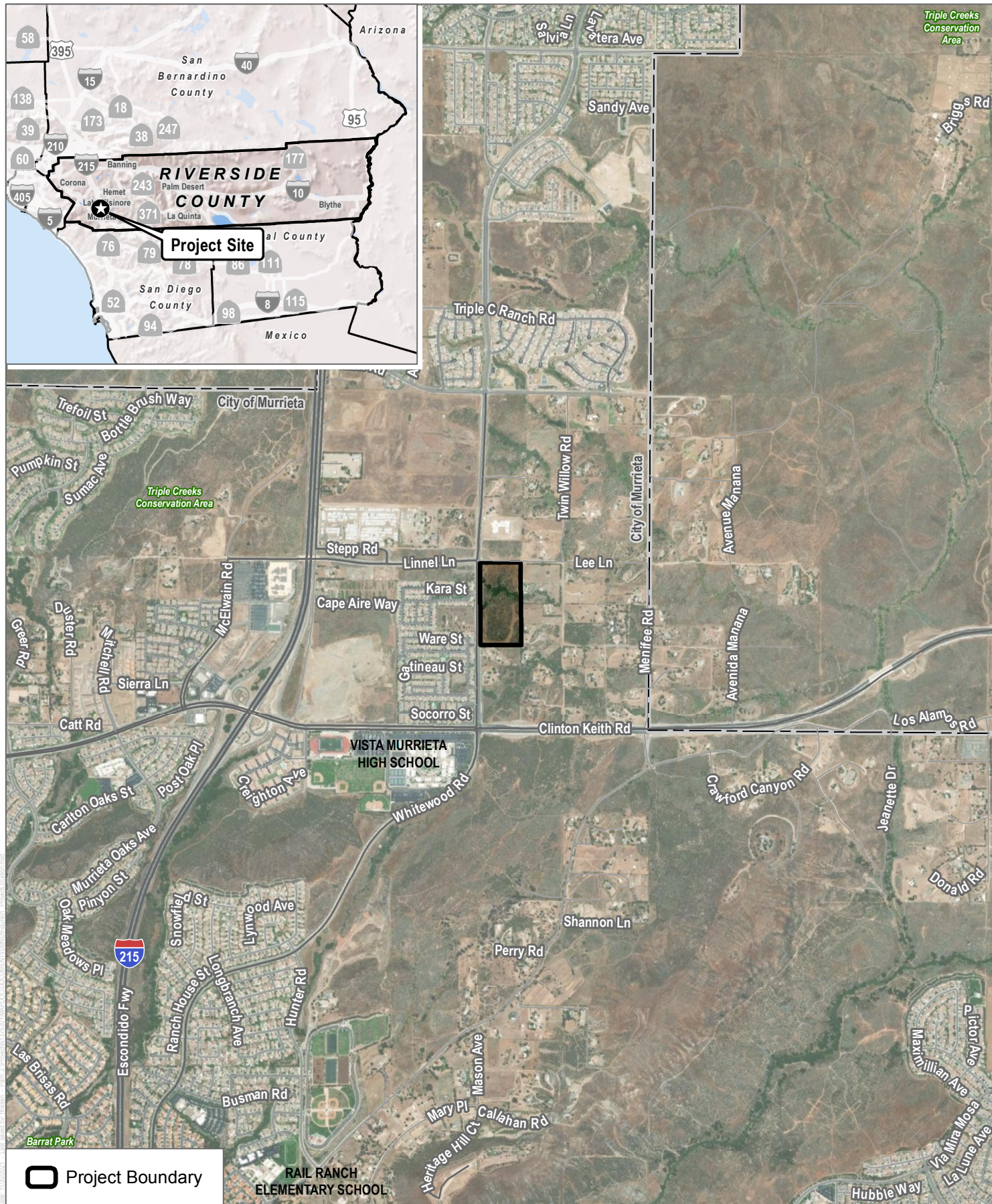
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4.2 List of Preparers

Dudek

Sean Kilkenny – Senior Project Manager
Hayley Ward – Deputy Project Manager
Sarah Halterman – Air Quality Specialist
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Heather McDevitt – Cultural Resources Specialist
Michael Williams - Paleontology Specialist
Mike Greene – Noise Specialist
Connor Burke – Noise Specialist
Sabita Tewani – Transportation Specialist
Daniela Yurovsky – Technical Editor
Tyler Friesen - GIS Technician

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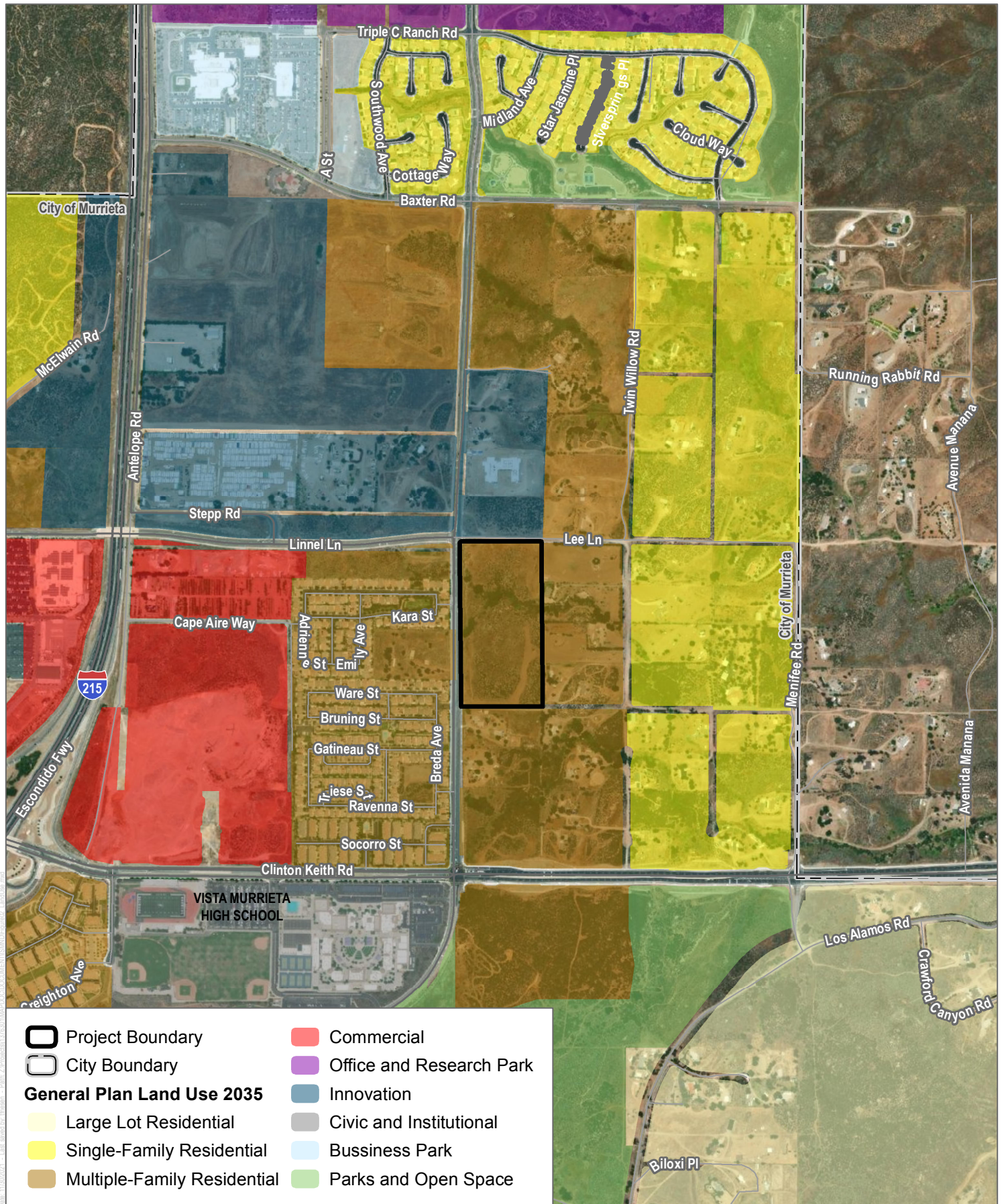
SOURCE: ESRI Imagery 2021, Riverside County 2021, Open Street Map 2020

FIGURE 1

Project Location

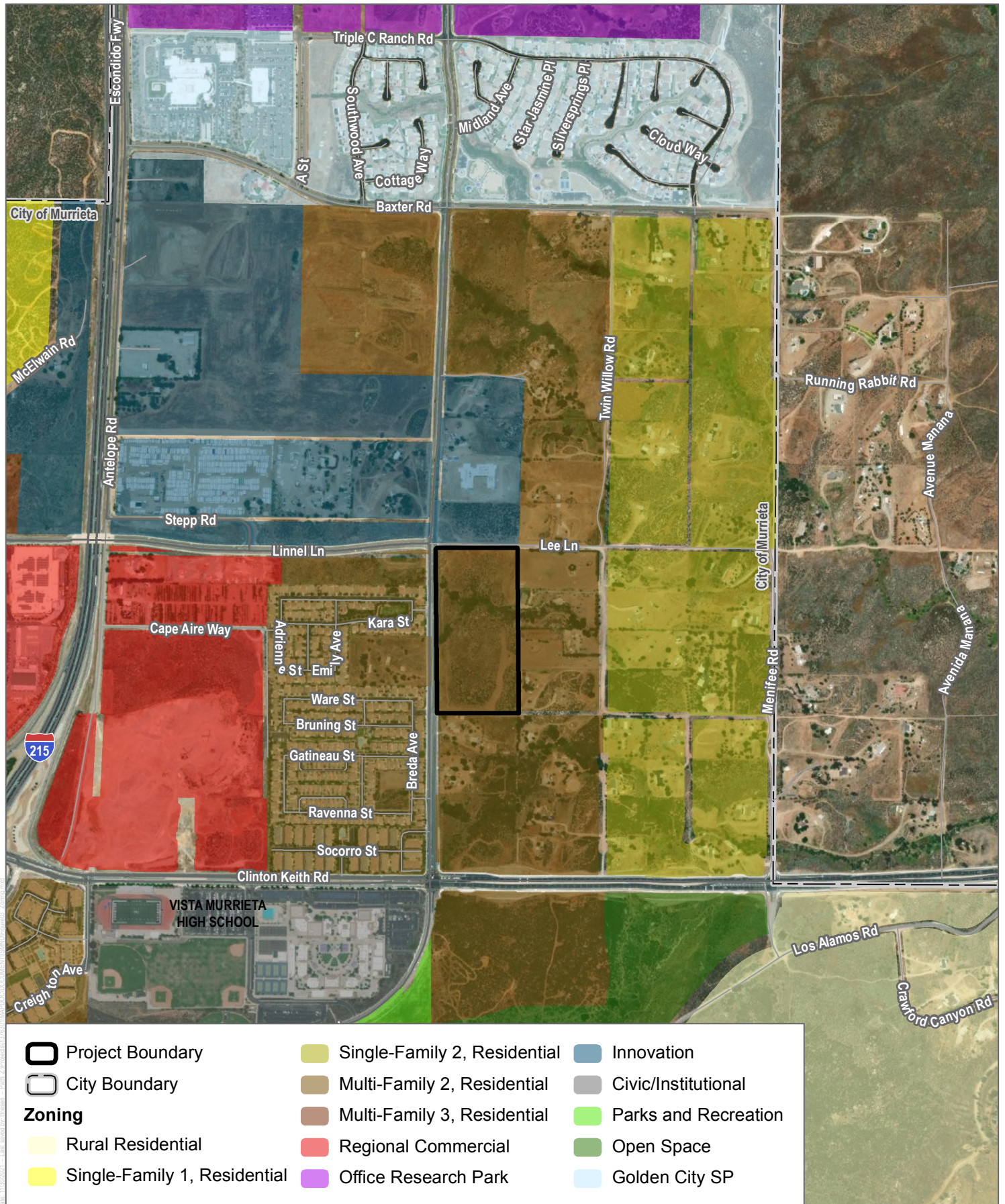
Whitewood Apartment Project

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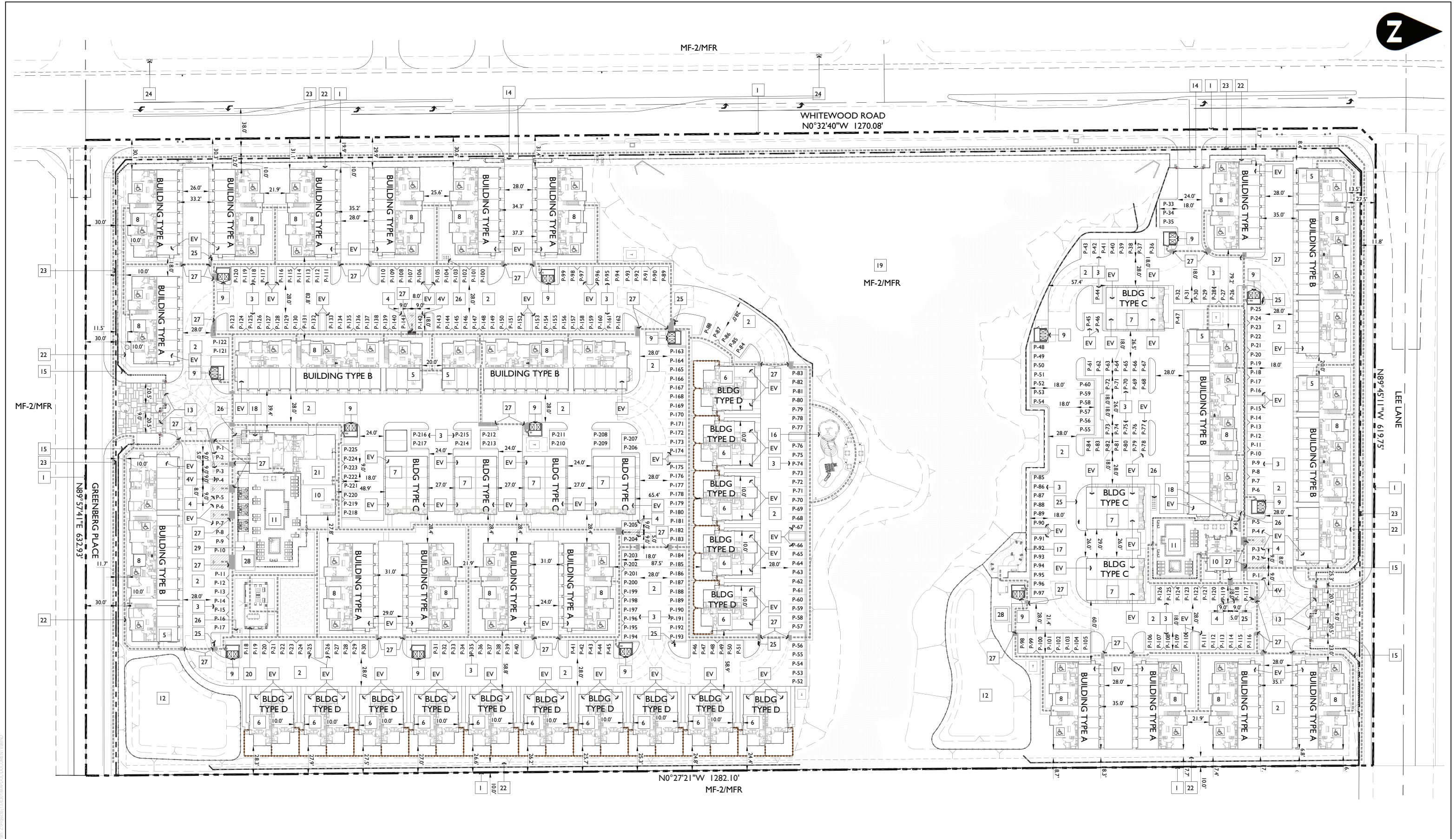
SOURCE: ESRI Imagery 2021, Riverside County 2021, Open Street Map 2020, City of Murrieta 2021

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SOURCE: ESRI Imagery 2021, Riverside County 2021, Open Street Map 2020, City of Murrieta 2021

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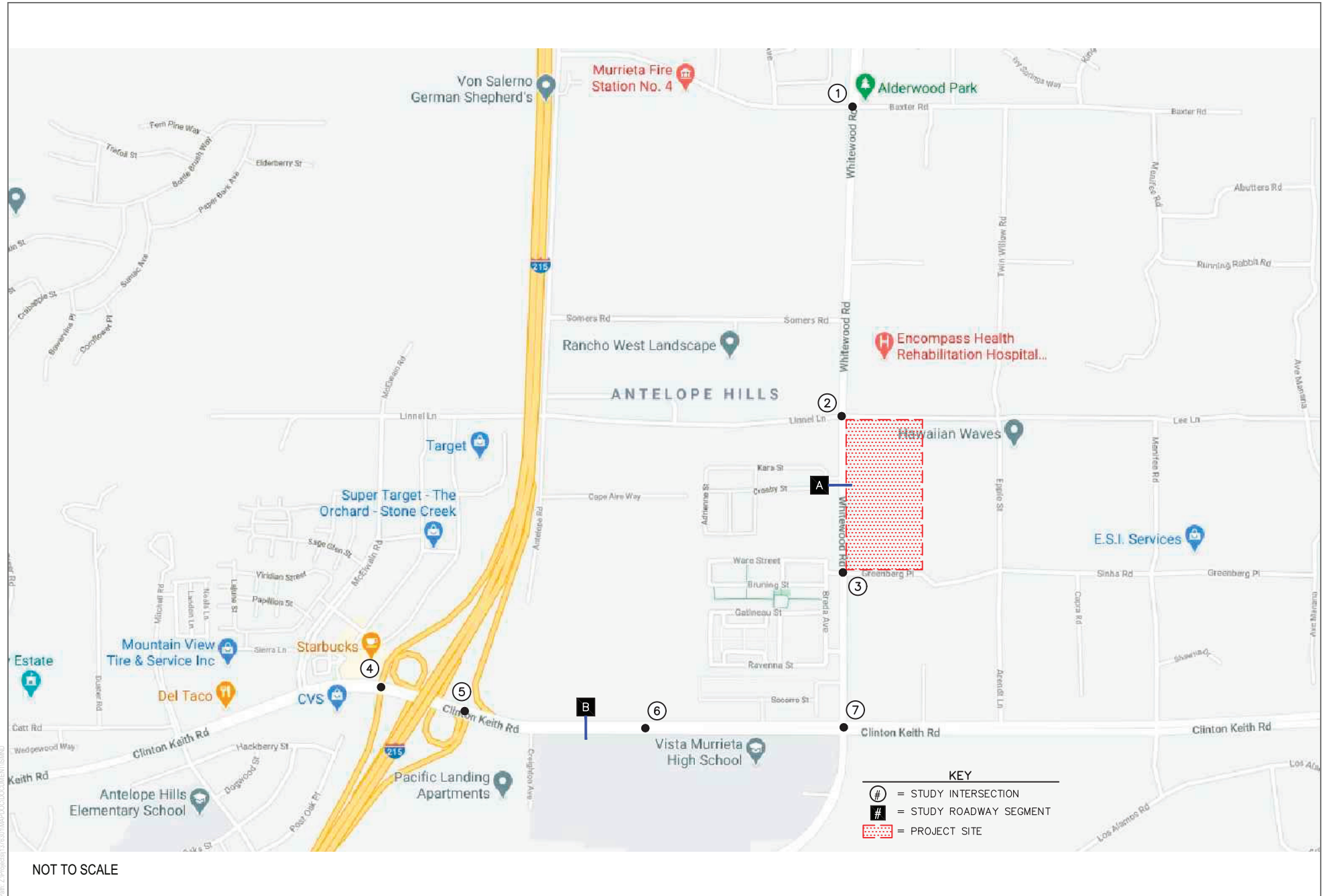
SOURCE: Summa Architecture 2021

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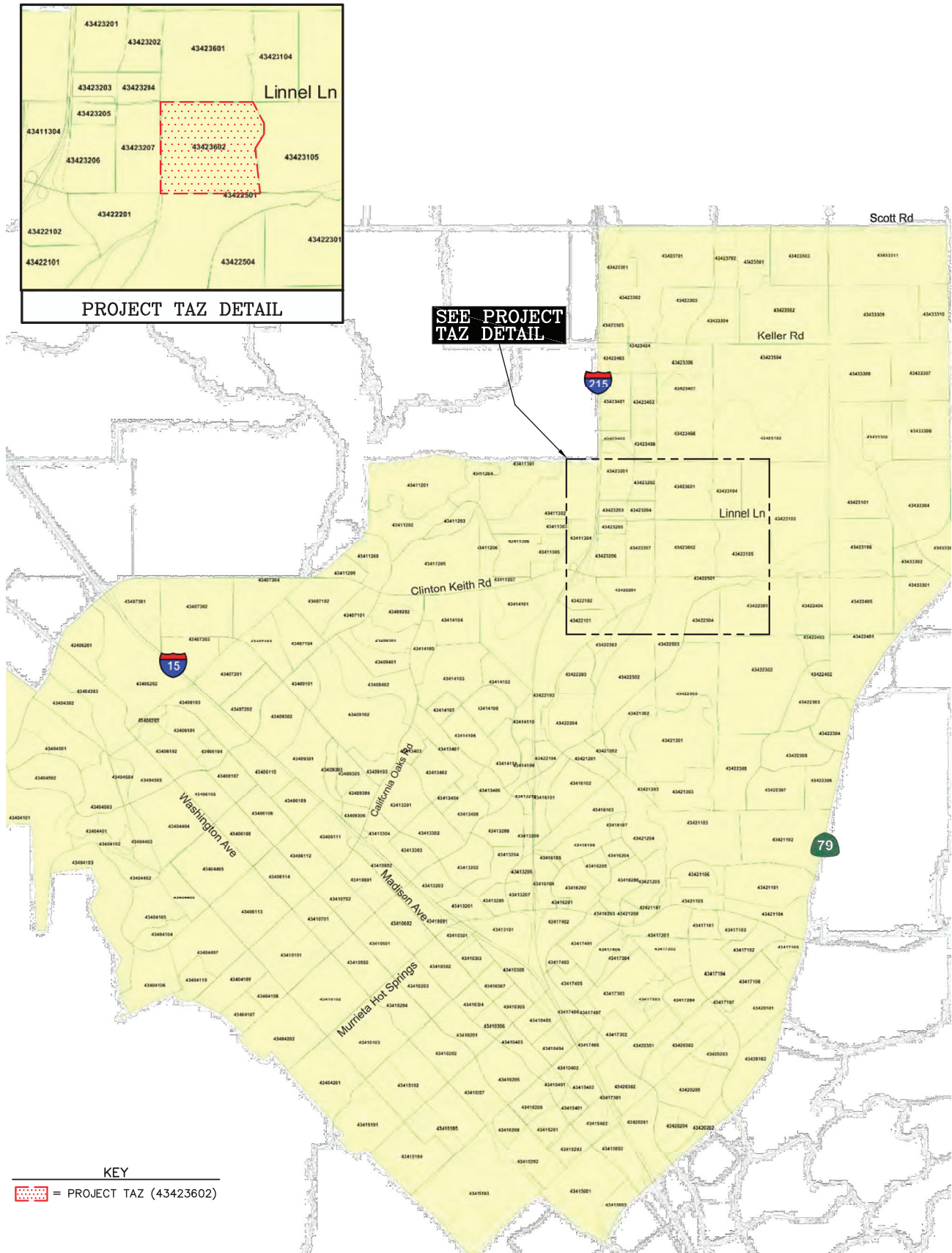
SOURCE: ESRI Imagery 2021, Riverside County 2021, Open Street Map 2020, Principe and Associates 2021

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SOURCE: Linscott, Law & Greenspan Engineers 2021

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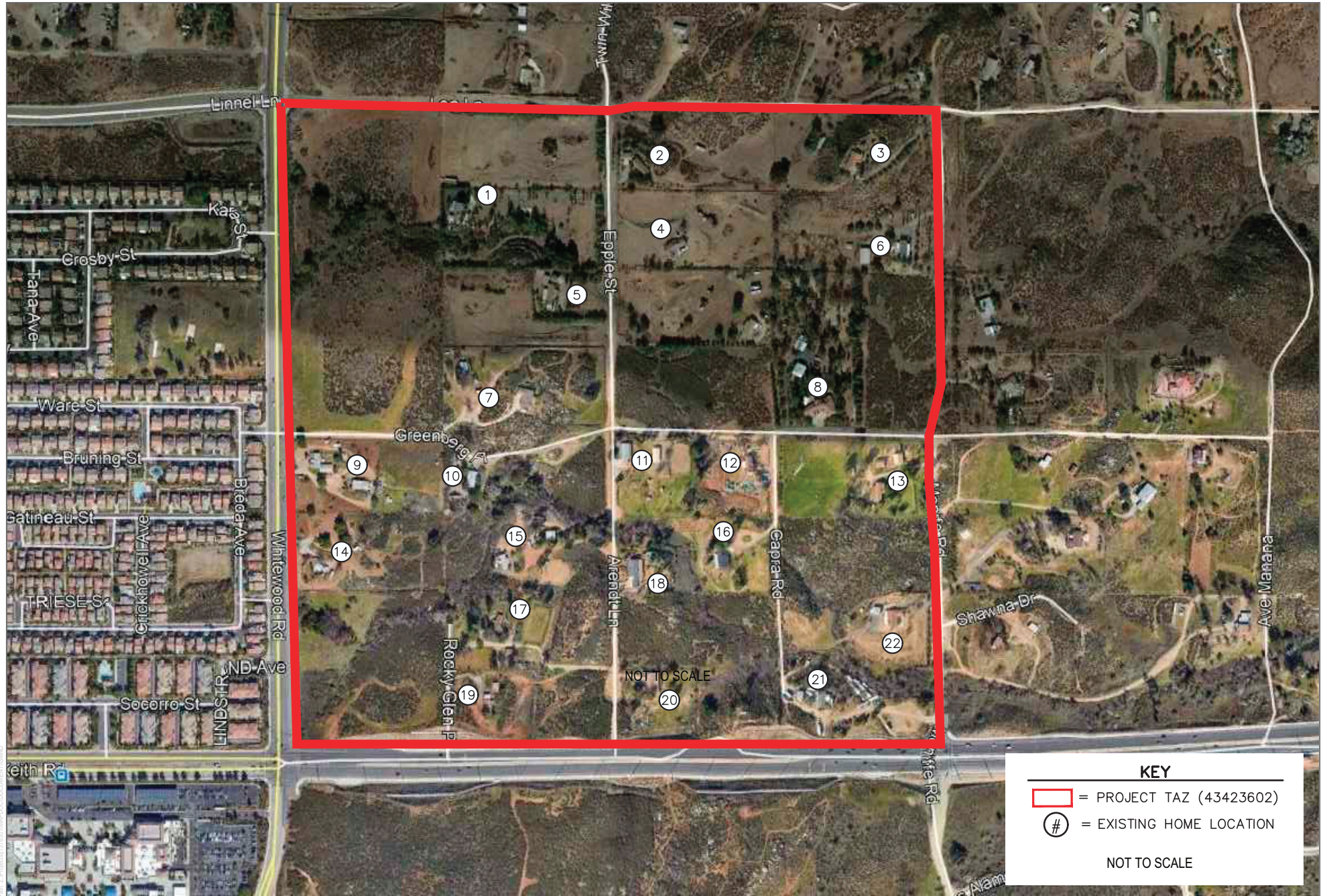


SOURCE: Linscott, Law & Greenspan Engineers 2021

FIGURE 7

Murrieta Model TAZ's
Whitewood Apartment Project

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SOURCE: Linscott, Law & Greenspan Engineers 2021

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