

LIMONITE AVENUE WIDENING PROJECT BAIN STREET TO HOMESTEAD STREET INITIAL STUDY/MITIGATED NEGATIVE DECLARATION



PREPARED FOR:

City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, California 92509
Contact: Chase Keys, PE
951-332-6464

PREPARED BY:

Psomas
1500 Iowa Avenue, Suite 210
Riverside, CA 92507
Contact: Jim Hunter, ENV SP
714-751-7373

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Acronyms and Abbreviations

AADT	annual average daily traffic
AAQS	ambient air quality standard
AB	Assembly Bill
AQMPs	air quality management plans
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
City	City of Jurupa Valley
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
County	County of Riverside
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
GHG	greenhouse gas
HCM	Highway Capacity Manual
IS	Initial Study
ISA	Initial Site Assessment
LOD	Limits of Disturbance
LOS	level of service
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MMT	million metric tons
MND	Mitigated Negative Declaration
MPG	miles per gallon
MSHCP	Multiple Species Habitat Conservation Plan (western Riverside County)
mph	miles per hour
MSAT	mobile-source air toxics

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHTSA	National Highway Traffic Safety Administration
NO ₂	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
ppm	parts per million
PRC	Public Resources Code
PS&E	Plans, Specifications, and Estimates
RCPG	Regional Comprehensive Plan and Guide
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SLM	sound level meter
SRA	Source Receptor Area
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TMDLs	Total Maximum Daily Loads
TMP	traffic management plan
TNM	Traffic Noise Model
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
VOC	volatile organic compounds
VPD	vehicles per day
WQMP	Water Quality Management Plan

Executive Summary

The City of Jurupa Valley (City) has prepared this Initial Study (IS) and proposed Mitigated Negative Declaration (MND) to evaluate the potential environmental impacts of the Limonite Avenue Widening Project from Bain Street to Homestead Street (proposed Project or Project) in the eastern portion of the City. The proposed Project would widen approximately 3,900 linear feet of Limonite Avenue between Bain Street on the west to Homestead Street on the east. The roadway would be widened from two to four lanes. The Project would tie into existing four-lane sections of Limonite Avenue from just west of Bain Street to just west of Homestead Street. The widened facility would consist of 14-foot wide No. 1 travel lanes in each direction, 12-foot wide No. 2 lanes in each direction, and a raised median. Three existing intersections would be modified to accommodate the widened roadway and existing driveways would be reconstructed as necessary where they join Limonite Avenue. New right-of-way would be acquired along both sides of Limonite Avenue to accommodate the improvements. As part of the City's permitting process, the proposed Project is required to undergo an environmental review in accordance with the California Environmental Quality Act (CEQA).

Authority

The preparation of an IS/MND is governed by the CEQA Statute (Public Resources Code Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Section 15063 of the State CEQA Guidelines and Sections 15070–15075 of Article 6 guide the process for the preparation of a negative declaration or a mitigated negative declaration. This IS/MND, as required by CEQA, contains 1) a project description; 2) a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, and consistency with plans and policies; and 3) names of preparers. The mitigation measures included in this IS/MND are designed to reduce or eliminate the potentially significant environmental impacts described herein. Where a mitigation measure described in this document has been previously incorporated into the Project, either as a specific feature of design or as a mitigation measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the State CEQA Guidelines.

Scope of the IS/MND

This IS/MND evaluates the proposed Project's impacts on the following 19 environmental resource¹ topics:

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

Document Organization

The content and format of this report are designed to meet the requirements of CEQA. The IS/MND consists of the proposed findings that the Project, as mitigated, would have no significant impacts. The bulk of this IS/MND consists of the initial study and supporting studies. The report contains the following sections.

- Chapter 1, "Introduction," identifies the purpose and scope of the IS/MND and the terminology used in the report.
- Chapter 2, "Project Description," identifies the location, background, and planning objectives of the Project and describes the proposed Project in detail.
- Chapter 3, "Environmental Analysis," presents the checklist responses for each resource topic. This section includes a brief setting section for each resource topic and identifies the impacts of implementing the proposed Project.
- Chapter 4, "References," identifies all printed references and individuals cited in this IS/MND.
- Chapter 5, "List of Preparers," identifies the individuals who prepared this report and their areas of technical specialty.

¹ Based on the State's most current checklist categories, "energy" use and conservation is addressed under Greenhouse Gas Emissions (VII b) and "wildfire" risks are addressed under Hazards (VIII h)..

Project Overview

The City of Jurupa Valley proposes to widen Limonite Avenue between Bain Street and Homestead Street. The proposed Project, located within the City of Jurupa Valley in Riverside County, California, would widen Limonite Avenue from two to four lanes. The Project would tie into existing four-lane sections of Limonite Avenue just west of Bain Street and just west of Homestead Street.

Project Location

The Project area is located along Limonite Avenue in the City of Jurupa Valley approximately 2.4 miles east of the I-15 Freeway and 1.0 mile west of Van Buren Boulevard. The Project site is split between the *Corona North* and the *Riverside West* 7.5-minute series quadrangle maps of the U.S. Geological Survey (USGS). The center or mid-point of the Project site (approximately Limonite at Pyrite Creek) is located at 33° 58' 32.1" North latitude and 117° 29' 57.7" West longitude. The site is also 1,000 to 1,700 feet north of the Santa Ana River depending on location, with its closest point near Bain Street and its furthest point at Homestead Street (separated by the Paradise Knolls Golf Course). At Pyrite Creek, the river is 1,350 feet south of Limonite Avenue. The site is also located within Sections 22 and 27 of Township 2 South, Range 6 West of the San Bernardino Base and Meridian (SBBM). Figures 1 and 2 show the location of the Project site within the City of Jurupa Valley. The San Sevaine Flood Control Channel crosses under the existing roadway just east of Bain Street but no improvements to that channel are anticipated as part of this Project.

Existing Setting

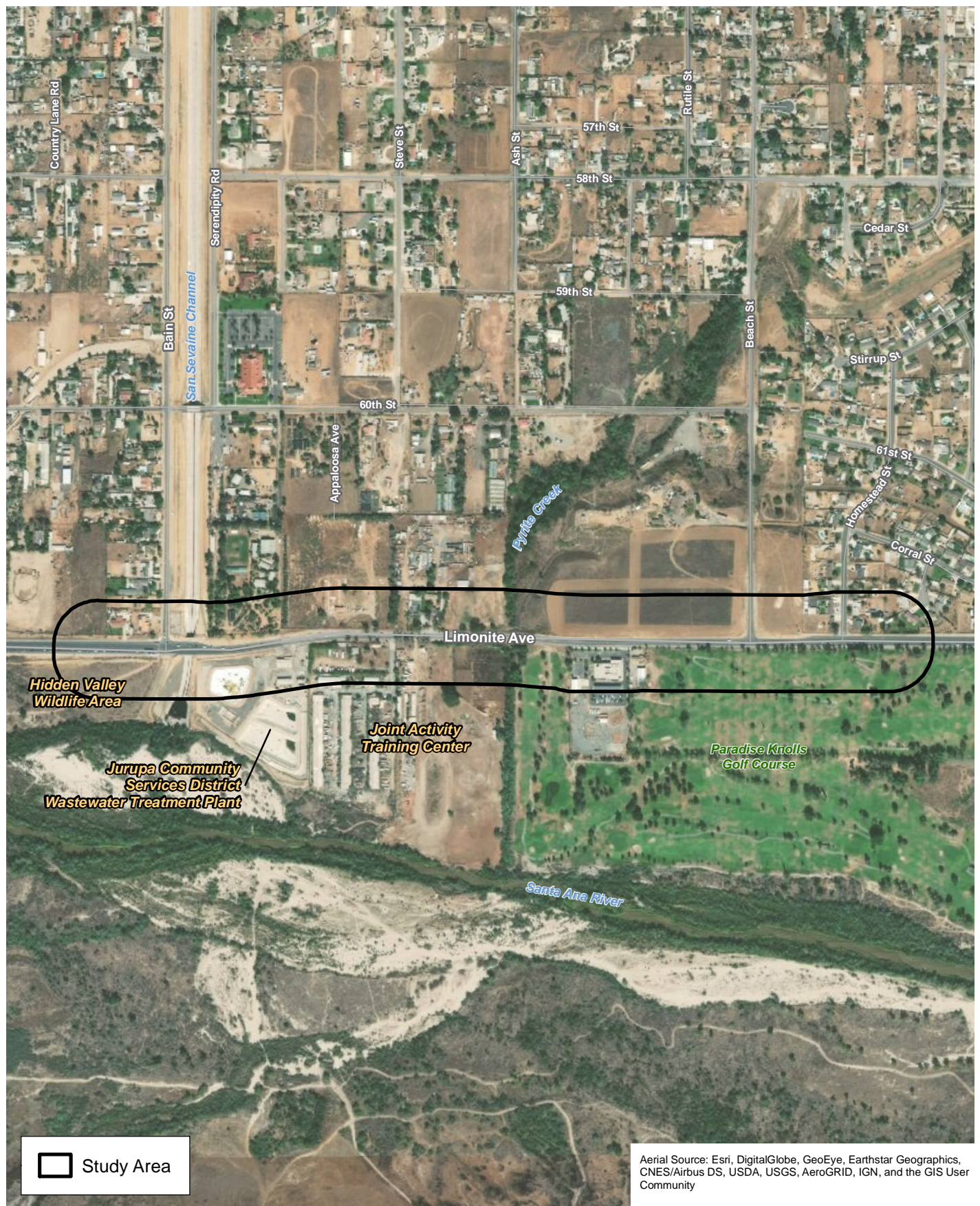
Existing Site Conditions and Surrounding Land Uses

Limonite Avenue runs east and west through the City, connecting as Riverview Drive to Mission Boulevard and indirectly to the SR-60 Freeway on the east/northeast and to the I-15 Freeway on the west. At approximately mid-way it connects to Van Buren Boulevard, a major arterial that provides regional access through the City and across the Santa Ana River to the south. Figure 2 shows the Project area and surrounding land uses. The proposed Project site is generally bordered by the Santa Ana River and Hidden Valley Wildlife Area on the south and southwest, respectively, institutional and commercial properties along the south side of the roadway, and rural residences along the north side of the roadway. A wastewater treatment facility operated by the Jurupa Community Services District is located along the south side of the roadway near Bain Street, and the Joint Activity Training Center and Paradise Knolls Golf Course are also along the south side of the street near Homestead Street. Limonite Avenue offers direct driveway access to the adjacent land uses to the north and south for these various institutional and residential uses (see Figures 2 and 3).

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Project Area

Limonite Avenue Widening Project – Bain Street to Homestead Street



750 375 0 750
Feet

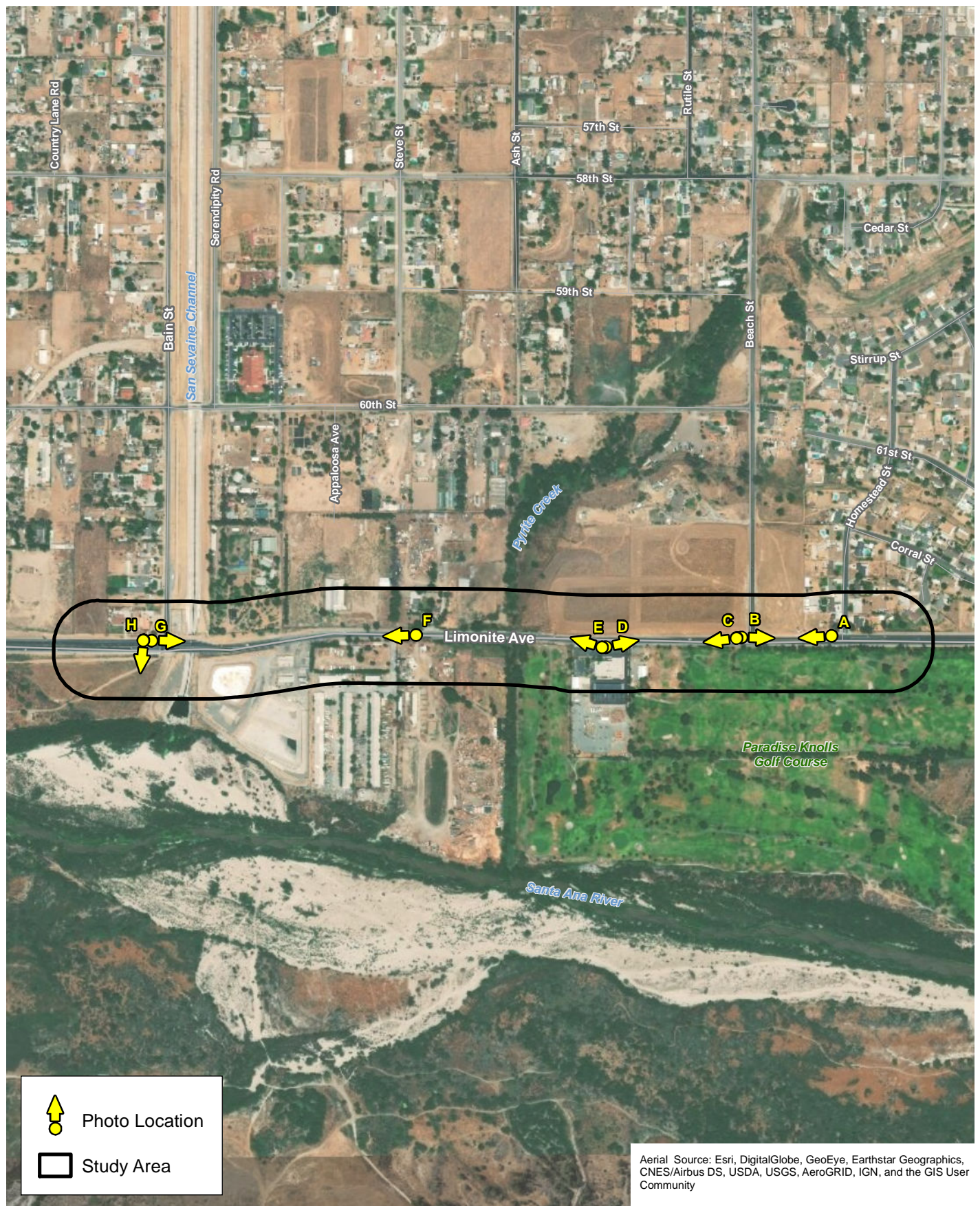
Figure 2



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Site Photograph Locations

Limonite Avenue Widening Project – Bain Street to Homestead Street



750 375 0 750
Feet

Figure 3a



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View A. Looking west along Limonite Avenue from Homestead Street.



View B. Looking east along Limonite Avenue from Beach Street.

Site Photographs

Limonite Avenue Widening Project – Bain Street to Homestead Street

Figure 3b



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View C. Looking west along Limonite Avenue from Beach Street.



View D. Looking east along Limonite Avenue from JATC Facility.

Site Photographs

Limonite Avenue Widening Project – Bain Street to Homestead Street

Figure 3c



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View E. Looking west along Limonite Avenue from JATC Facility.



View F. Looking west from the center of the study area (Bain St. in distance).

Site Photographs

Limonite Avenue Widening Project – Bain Street to Homestead Street

Figure 3d



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View G. Looking east along Limonite Avenue from Bain Street.



View H. Looking south across Limonite Avenue toward the Santa Ana River and the La Sierra Hills.

Site Photographs

Limonite Avenue Widening Project – Bain Street to Homestead Street

Figure 3e



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Existing General Plan and Zoning

The City of Jurupa Valley adopted its first General Plan in 2017 and the Mobility Element designates Limonite Avenue, including the segment from Bain Street to Homestead Street, as an Urban Arterial with an ultimate 152-foot right of way. The City's Zoning Ordinance does not regulate the establishment of roadways; therefore, zoning requirements would not apply to the proposed Project. However, the zoning of adjacent land uses, when necessary for the evaluation of environmental impacts, would be identified. Figure 4 shows the General Plan land use designations of the properties adjacent to Limonite Avenue within the Project area.

Project Characteristics

The proposed Project includes the improvements on Limonite Avenue between Bain Street to Homestead Street. The purpose of the proposed Project is to:

- Widen this segment of Limonite Avenue from two to four lanes.
- Align the expanded roadway with the current four-lane sections of Limonite Avenue just west of Bain Street and just west of Homestead Street.
- Provide safe refuge area for vehicles to safely enter/exit driveways along Limonite Avenue.
- Promote safe turning movements.

The purpose of the proposed Project is to widen Limonite Avenue from Bain Street on the west to Homestead Street on the east, a distance of approximately 3,900 feet or 0.74 mile. The existing roadway has two (2) travel lanes without curb and gutter and varies from 32 to 45 feet in width depending on location, presence of a shoulder, etc. Existing elevations along the roadway (onsite) range from 679 feet above mean sea level (amsl) at Bain Street rise to 695 feet amsl at Homestead Street, although the lowest elevation of the roadway within the study area is 651 feet amsl approximately 950 feet east of Bain Street. Figure 3a-e shows various views of the Project area along Limonite Avenue.

Limonite Avenue is designated as an existing Urban Arterial roadway in the City's 2017 General Plan (ultimate 152-foot right-of-way) with 4 to 6 travel lanes (Mobility Element, Table 3.1, *Mobility Corridor Classifications*, and Figure 3-2, *Mobility Corridors Map*) as shown below:

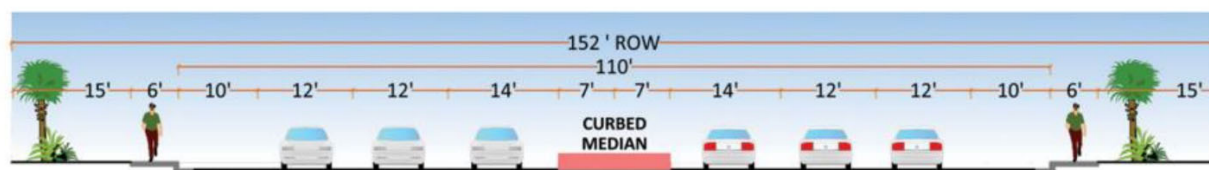
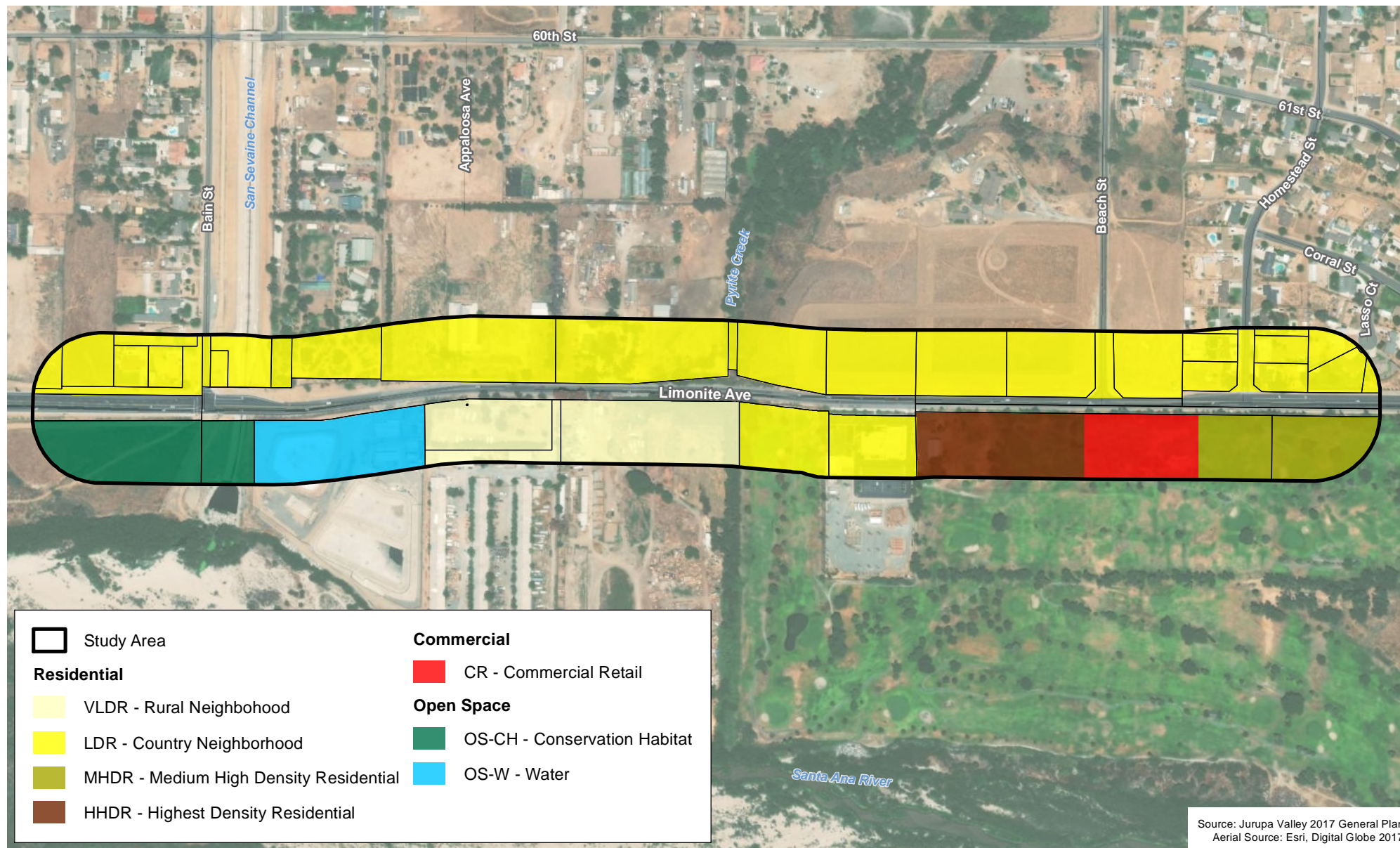


EXHIBIT 2: URBAN ARTERIAL

Source: General Plan 2017, Circulation Element, Figure 3-5, Conventional Roadway Cross Sections

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General Plan Land Uses

Limonite Avenue Widening Project – Bain Street to Homestead Street

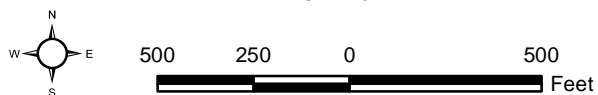


Figure 4



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The proposed Project would widen Limonite Avenue from Bain Street to Homestead Street to provide two (2) additional travel lanes (4 total travel lanes), a raised center median, and the addition of curb and gutter. A 10-foot wide equestrian use trail will be added and located on the north side of the street while a 10-foot wide multi-use path will be located on the south side. In general, the roadway will be widened and realigned slightly to the north to improve sight distances and traffic flow. Some property along the limits of the existing roadway will need to be acquired for this purpose. After improvement, the roadway will have a right-of-way width of 111 feet and a curb-to-curb width of 76 feet. The land needed for temporary construction easements would be restored to largely existing conditions after completion of the roadway improvements, especially relating to drainage.

The Project is currently being designed with plans approximately 75 percent complete. These plans are depicted in Figures 5a-d which show the conceptual plans for the proposed roadway improvements with tentative areas identified for the various rights-of-way/easements required for the improvements. It should be noted these areas are subject to change with the final design.

Drainage Improvements and Regulatory Permitting

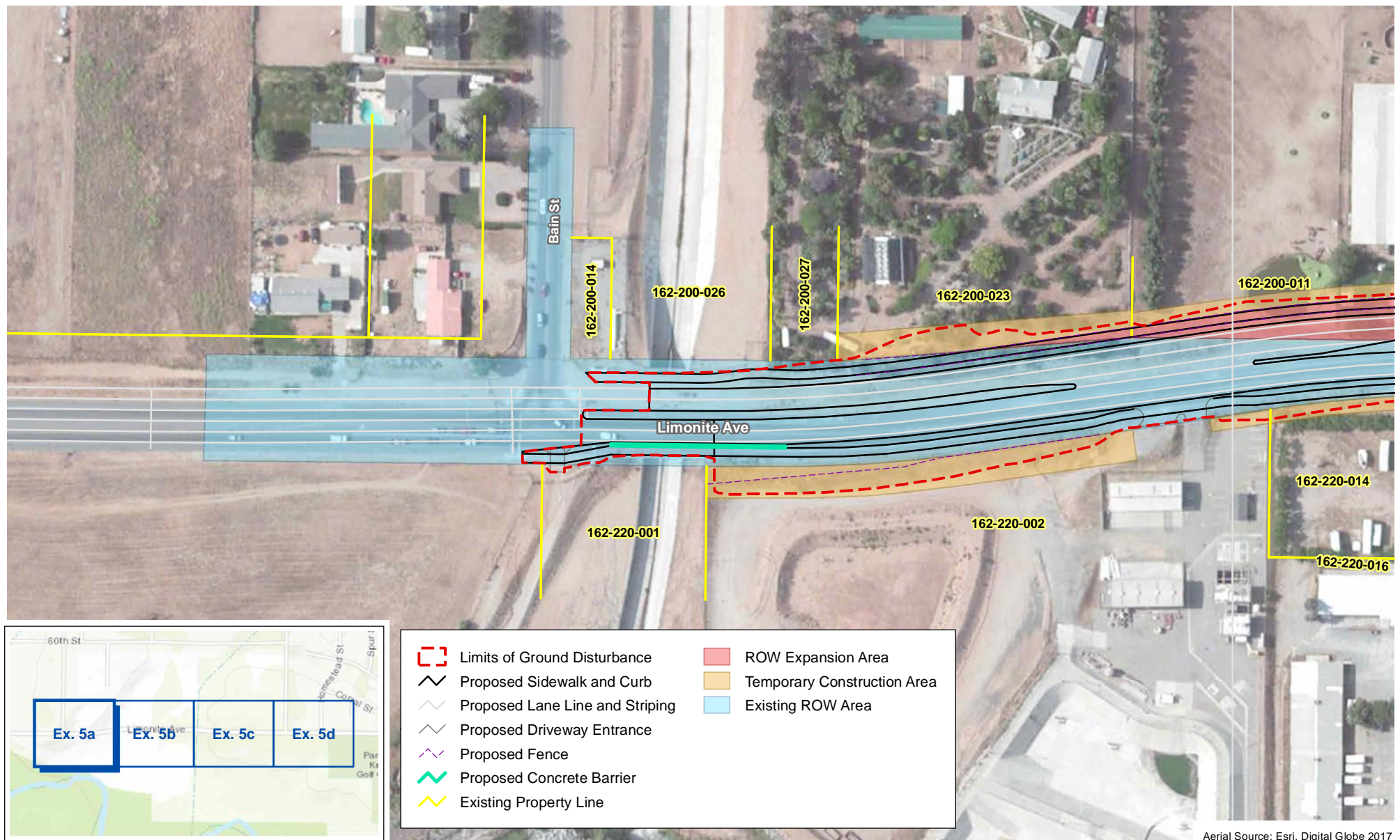
The San Sevaine Flood Control Channel crosses under the existing roadway just east of Bain Street but no work on or improvements to that channel are anticipated as part of this Project. There are currently two 60-inch corrugated metal pipe (CMP) drainage structures in Pyrite Creek at this point to convey runoff under the roadway. The portion of the roadway that crosses over Pyrite Creek would be widened and realigned slightly, and the two existing CMP structures are proposed to be replaced by two 12-foot by 12-foot concrete box culverts under the new roadway bed. This work is expected to trigger subsequent regulatory permitting as outlined in Table A. Federal and state water quality regulations require a Stormwater Pollution Prevention Plan (SWPPP) be prepared for projects that involve greater than one acre of disturbance which would include the proposed Project.

Table A. Potential Subsequent Project Permitting

Agency	Permit/Action
U.S. Army Corps of Engineers (USACE)	Federal Clean Water Act Section 404 Nationwide Permit for the discharge of dredge or fill material into waters of the United States (if necessary)
U.S. Fish and Wildlife Service (USFWS)	Federal Endangered Species Act Section 10 Incidental Take Permit for impacts to listed species
State Water Resources Control Board	Notice of Intent to Comply with General Construction Activity NPDES Permit.
Santa Ana Regional Water Quality Control Board (RWQCB)	Federal Clean Water Act Section 401 Water Quality Certification for the discharge of dredge or fill material into waters of the United States
California Department of Fish and Wildlife (CDFW)	California Fish and Game Code Section 1602 Streambed Alteration Agreement
Riverside County Flood Control and Water Conservation District (RCFCWCD)	Temporary Encroachment Permit(s)

NPDES = National Pollution Discharge Elimination System

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Aerial Source: Esri, Digital Globe 2017

Conceptual Improvement Plans

Limonite Avenue Widening Project – Bain Street to Homestead Street

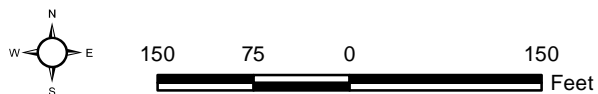


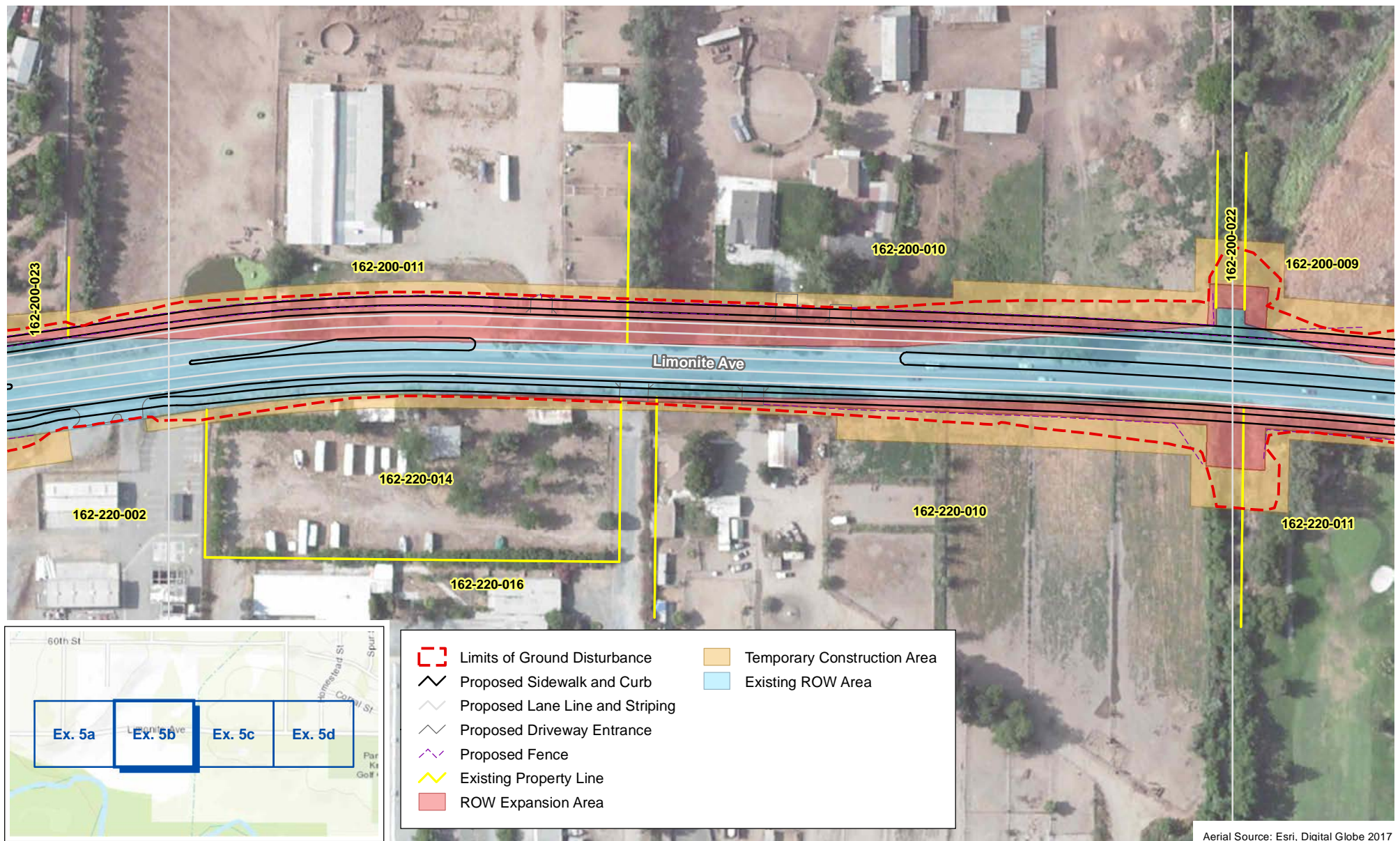
Figure 5a



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Conceptual Improvement Plans

Limonite Avenue Widening Project – Bain Street to Homestead Street

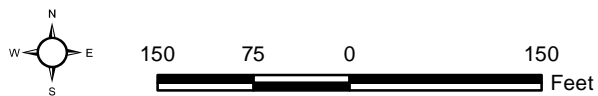


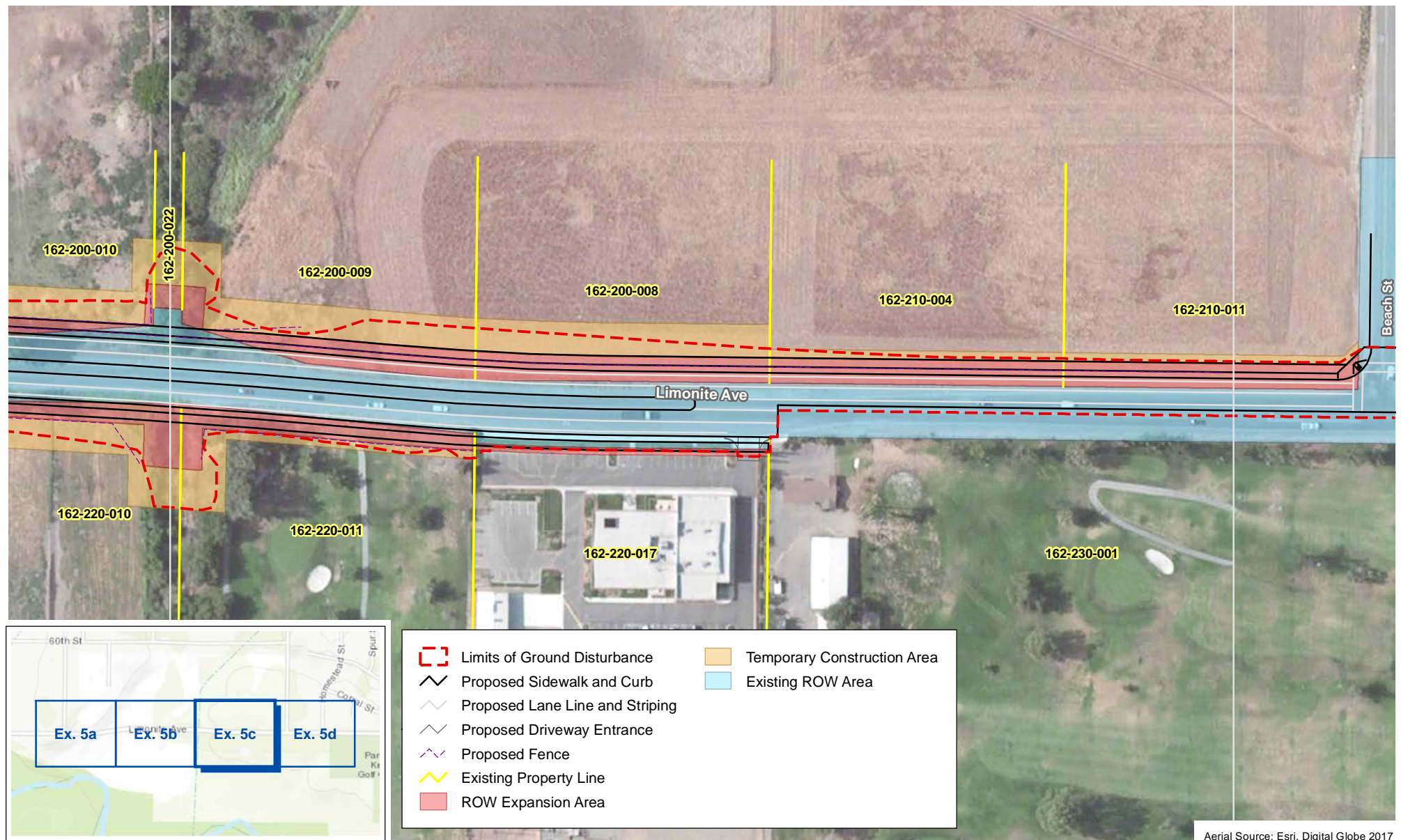
Figure 5b



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Aerial Source: Esri, Digital Globe 2017

Conceptual Improvement Plans

Limonite Avenue Widening Project – Bain Street to Homestead Street

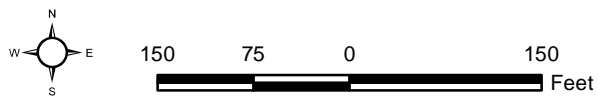


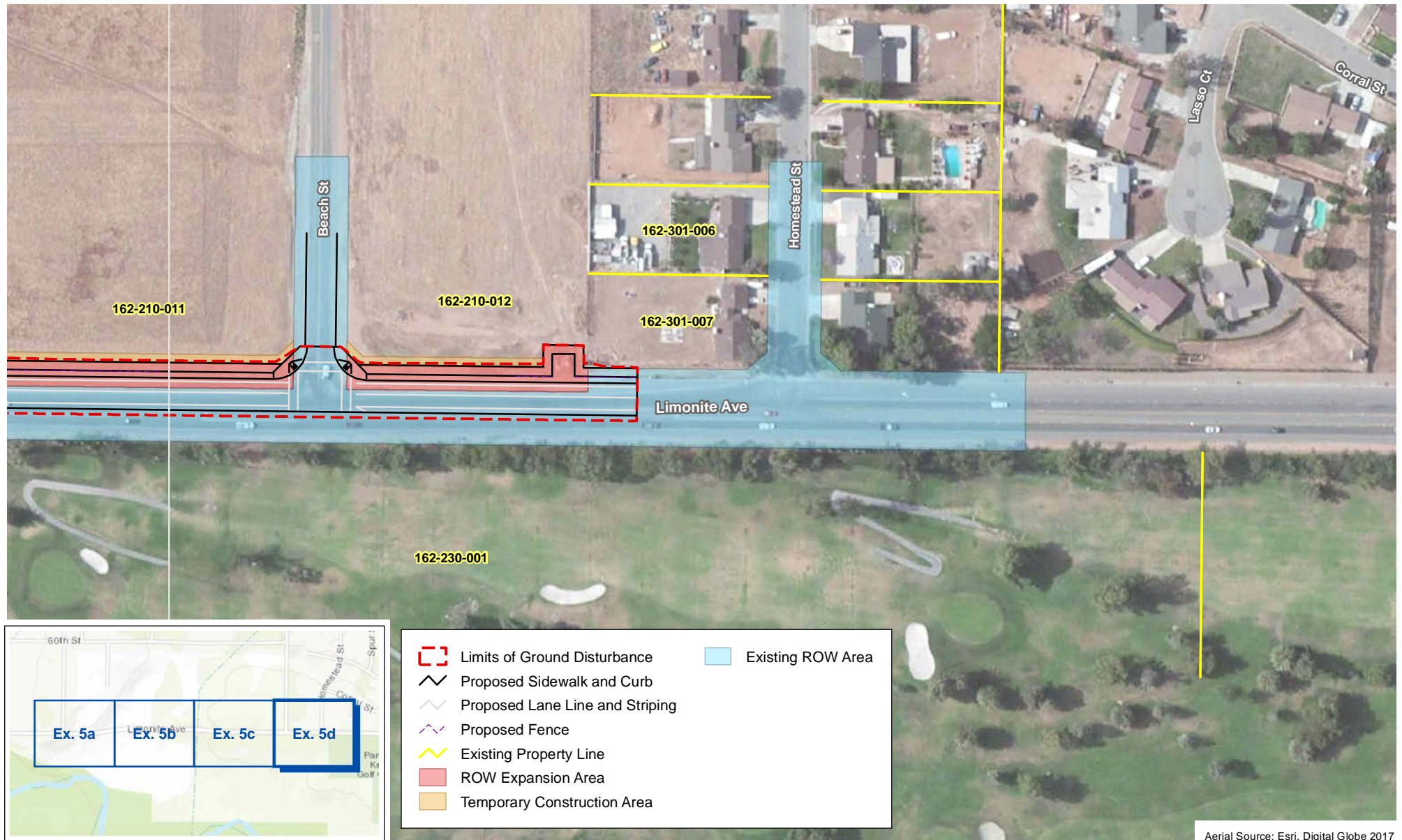
Figure 5c



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Conceptual Improvement Plans

Limonite Avenue Widening Project – Bain Street to Homestead Street

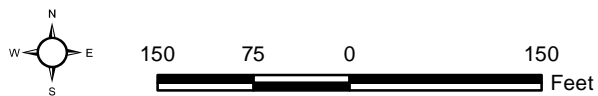


Figure 5d



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Permanent and Temporary Property Acquisitions

As shown in Figure 5a-d, the Project would impact 15 properties with 9 of these properties on the north side of the roadway and 6 properties on the south side. The Project would require acquisition of 2.68 acres from these private properties for the additional permanent road right-of-way, as well as an additional 2.86 acres for temporary construction easements. Table B summarizes the temporary and long-term impacts of the Project on adjacent parcels including temporary construction easements and partial property acquisitions for the permanent right-of-way. Figure 6 shows the location of the properties affected by the proposed roadway improvements.

Table B. Estimated Impacts by Parcel (West to East)

Assessor Parcel Number (APN) ¹	Temp. Const. Easement		Partial Acquisition		Improvement Plan ² Page(s)
	Distance	Acres	Distance	Acres	
North Side of Limonite Avenue					
162-200-023	17-30 feet	0.21	up to 35 feet	0.02	2-3
162-200-022	17-30 feet	0.04	up to 35 feet	0.02	3
162-200-011	17 feet	0.24	up to 53 feet	0.58	4
162-200-010	up to 35 feet	0.42	up to 40 feet	0.48	5
162-200-009	up to 35 feet	0.31	up to 35 feet	0.20	5
162-200-008	up to 35 feet	0.28	up to 35 feet	0.23	6
162-210-004	10 feet	0.08	up to 35 feet	0.22	7
162-210-011	up to 35 feet	0.08	up to 35 feet	0.22	7
162-210-012	10 feet	0.05	35-78 feet	0.20	7-8
South Side of Limonite Avenue					
162-020-002	35 feet	0.41	none	0.00	2-3
162-220-016	15 feet	0.01	none	0.00	3
162-220-014	15 feet	0.15	up to 5 feet	0.01	4
162-220-010	10-35 feet	0.44	10-35 feet ³	0.25	4-5
162-220-011	35 feet	0.15	up to 90 feet ³	0.19	5
162-220-017	none	0.00	8-14 feet	0.06	6
TOTAL	--	2.86	--	2.68	2-8

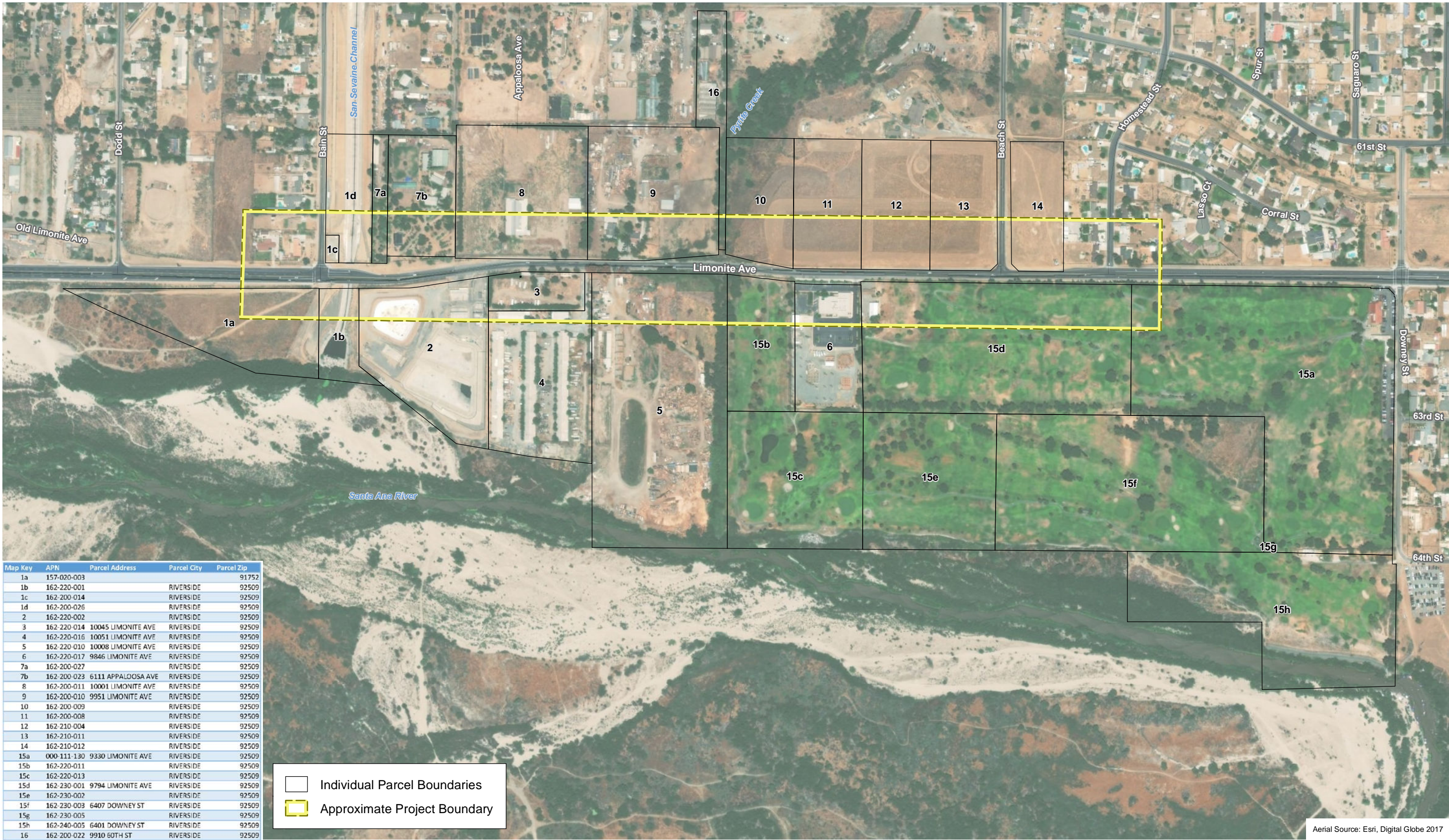
Source: Estimates based on HRGreen, Limonite 75% Improvement Plans, dated October 2018

1 per Riverside County Assessor, last equalized tax roll

2 see Appendix A

3 variable width due to channel location

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Map Key	APN	Parcel Address	Parcel City	Parcel Zip
1a	157-020-003		RIVERSIDE	91752
1b	162-220-001		RIVERSIDE	92509
1c	162-200-014		RIVERSIDE	92509
1d	162-200-026		RIVERSIDE	92509
2	162-220-002		RIVERSIDE	92509
3	162-220-014	10045 LIMONITE AVE	RIVERSIDE	92509
4	162-220-016	10051 LIMONITE AVE	RIVERSIDE	92509
5	162-220-010	10008 LIMONITE AVE	RIVERSIDE	92509
6	162-220-017	9846 LIMONITE AVE	RIVERSIDE	92509
7a	162-200-027		RIVERSIDE	92509
7b	162-200-023	6111 APPALOOSA AVE	RIVERSIDE	92509
8	162-200-011	10001 LIMONITE AVE	RIVERSIDE	92509
9	162-200-010	9951 LIMONITE AVE	RIVERSIDE	92509
10	162-200-009		RIVERSIDE	92509
11	162-200-008		RIVERSIDE	92509
12	162-210-004		RIVERSIDE	92509
13	162-210-011		RIVERSIDE	92509
14	162-210-012		RIVERSIDE	92509
15a	000-111-130	9330 LIMONITE AVE	RIVERSIDE	92509
15b	162-220-011		RIVERSIDE	92509
15c	162-220-013		RIVERSIDE	92509
15d	162-230-001	9794 LIMONITE AVE	RIVERSIDE	92509
15e	162-230-002		RIVERSIDE	92509
15f	162-230-003	6407 DOWNEY ST	RIVERSIDE	92509
15g	162-230-005		RIVERSIDE	92509
15h	162-240-005	6401 DOWNEY ST	RIVERSIDE	92509
16	162-200-022	9910 60TH ST	RIVERSIDE	92509

Individual Parcel Boundaries

Approximate Project Boundary



Parcel Ownership
Limonite Avenue Widening Project – Bain Street to Homestead Street

Figure 6



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Construction Methods/Timing

Construction of the Limonite Avenue Widening – Bain Street to Homestead Street Project would require approximately nine (9) months and would be completed in three phases which divide the roadway length-wise. Project construction is planned to allow continued access along the roadway during all phases of Project construction.

Phase 1 (1 month) would be the widening of the south side of the roadway near the culvert construction only by clearing along the shoulder out to the edge of the right-of-way (ROW) and adding “hot mix” asphalt as a temporary road surface that would allow traffic to be shifted to the south to complete work in the northern portion of the roadway. This work would also involve installation of temporary fencing along the southern project boundary to restrict unauthorized access to the work area and would take approximately one month.

Phase 2 (4 months) would be improving the north side of the roadway by saw cutting the pavement, grading the planned road alignment, removing the existing paving, and installing new sub-base in preparation of installing the new wider roadbed along with curb, gutter and trail improvements and the north half of the proposed box culverts. The initial grading effort would take only a few days but preparing the area for the new culverts for Pyrite Creek under the roadway would take additional time.

Phase 3 (4 months) would be improving the south side of the roadway by saw cutting the pavement, grading the planned road alignment, removing the existing paving, and installing new sub-base in preparation of installing the new wider roadbed along with curb, gutter and trail improvements and the south half of the proposed box culverts. The initial grading effort would take only a few days but preparing the area for the new culverts for Pyrite Creek under the roadway would take additional time.

“Worst Case Conditions” to be used for estimating air quality and other impacts from the Project include:

- The specific beginning and end dates of the project are not known, but the entire Project is expected to take 200 working days from beginning to end.
- The “total area disturbed” would be 9.4 acres based on the designed grading limits (409,470 square feet).
- The “area newly disturbed” would be 5.6 acres based on the total area disturbed (9.4 acres) minus the area already disturbed (3.8 acres).
- The “maximum area newly disturbed in one day” would be as follows:
 - Stage 1 – 0.05 acres per day for 3 days of initial grading.
 - Stage 2 – 0.8 acres per day for 5 days of initial grading.
 - Stage 3 – 0.27 acres per day for 5 days of initial grading.
- Project grading is expected to be balanced onsite but grading for box culverts may result in up to 1,000 cubic yards of soil exported from the site over approximately 7 days or a maximum of 200 cubic yards in one day.
- The import of up to 9,000 tons of asphalt over a period of 6 days (average 1,500 tons per day).

Discretionary Approvals Required

The City of Jurupa Valley is the lead agency under CEQA and is responsible for planning and implementing the Project, and approving the following discretionary actions to implement the Project:

- Adoption of the Mitigated Negative Declaration.
- Adoption of a mitigation monitoring and reporting program.

Other public agencies may also have discretionary authority over the Project or aspects of the Project and are considered responsible agencies. The MND can be used by the responsible agencies to comply with CEQA in connection with permitting or approval authority over the Project.

In addition, as indicated in Table A, Potential Subsequent Project Permitting, the Project would likely require subsequent approvals/regulatory permitting from the following agencies; U.S. Army Corps of Engineers (USACE); U.S. Fish and Wildlife Service (USFWS); State Water Resources Control Board through the Santa Ana Regional Water Quality Control Board (RWQCB); California Department of Fish and Wildlife (CDFW); and Riverside County Flood Control and Water Conservation District (RCFCWCD).

Chapter 3

Environmental Analysis

1. Project Title: Limonite Avenue Widening Project - Bain Street to Homestead Street
2. Lead Agency Name and Address: City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, California 92509
3. Contact Person and Phone Number: Chase Keys, PE, Assistant Engineer
(951) 332-6464 x235
4. Project Location: Located on Limonite Avenue from Bain Street to Homestead Street in the City of Jurupa Valley, County of Riverside, California.
5. Project Sponsor's Name and Address: City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, California 92509
6. General Plan Designation: General Plan Mobility Element—Urban Arterial.
7. Zoning: The City's Zoning Ordinance does not regulate the establishment of roadways so zoning does not apply.
8. Description of Project: Widening and improvements to an existing roadway (See Chapter 2)
9. Surrounding Land Uses and Setting: Land uses include the Santa Ana River and Hidden Valley Wildlife Area to the south and southwest. Rural residential land, much of which is vacant, is located along the north side of the roadway. The Paradise Knolls Golf Course is located southeast of the site. A wastewater treatment facility operated by the Jurupa Community Services District and the Joint Activity Training Center (JATC) are located along the south side of the roadway.
10. Other Public Agencies Whose Approval is or may be Required: State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) Permit. U.S. Army Corps of Engineers 404 Permit, U.S. Fish and Wildlife Service Incidental Take Permit, Regional Water Quality Control Board 401 Permit, and California Department of Fish and Wildlife Section 1602 Streambed Alteration Agreement.

Environmental Factors Potentially Affected

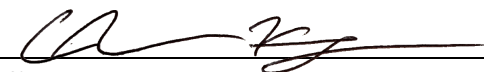
The environmental factors² checked below would potentially be affected by this project (i.e., the Project would involve at least one impact that is a “Potentially Significant Impact”), as indicated by the checklist on the following pages.

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

Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to 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 an impact on the environment that is “potentially significant” or “potentially significant unless mitigated” 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 Project, nothing further is required.


Signature

12/5/19
Date

² Based on the State’s most current checklist categories, “energy” use and conservation are addressed under Greenhouse Gas Emissions (VII b) and “wildfire” risks are addressed under Hazards (VIII h).

Printed Name

For

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 would 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 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 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) 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 a significant or potentially significant impact to a less than significant level.

The following information is provided to supplement the Evaluation of Environmental Impacts discussed above.

Thresholds of Significance

Thresholds of significance are identifiable quantitative, qualitative or a performance level of a particular environmental effect or impact. Non-compliance with a threshold means the impact would normally be determined to be significant and, conversely, compliance with a threshold means the effect would normally be less than significant (Guidelines §15064.7). The City relies upon the specific questions relating to environmental impact areas listed in Appendix G of the State CEQA Guidelines to determine a level of significance.

Environmental Baseline

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. State CEQA Guidelines Section 15125(a) states in pertinent part that the existing environmental setting would normally constitute the baseline physical conditions by which a lead agency would determine if an impact is significant. Therefore, the environmental baseline for this Project constitutes the existing physical conditions as they exist at the time that the environmental process commenced.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
I. Aesthetics				
Would the Project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project:

a. Have a substantial adverse effect on a scenic vista?

No Impact. The vicinity of the Project includes a number of scenic resources, including the Santa Ana River and Hidden Valley Wildlife Area to the south and southwest. In addition, the San Gabriel Mountains are visible to the north from certain locations within the City and the Pedley Hills and Jurupa Mountains are generally visible to the north and northeast also from various locations in the City. These uplands are generally considered to be visual or scenic resources for the City (General Plan Section 2). The La Sierra Hills are visible south of the Project area across the Santa Ana River (see Figure 3e, *Site Photographs*).

The State Caltrans Scenic Highways Program website does not indicate any State Designated, State Eligible, or County Eligible scenic highways in the Project study area, including this portion of Limonite Avenue (Caltrans 2018). However, the City General Plan Mobility Element, Figure 3-31, *Scenic Corridors*, indicates Limonite Avenue from Bain Street to just east of Pyrite Creek (a distance of approximately half a mile) is considered a local scenic corridor.

The nature of the proposed Project (i.e., a flat roadway) is such that it would not obstruct any scenic views for travelers in the area, therefore, there would be no impact on scenic vistas.

b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings along a scenic highway?

Less Than Significant Impact. Limonite Avenue is not designated or eligible scenic highway/route as classified by the State or County and there are also no officially designated state scenic highways within the immediate vicinity of the proposed Project (Caltrans 2018)(County 2008). As previously indicated in Response I.a., however, the City's General Plan indicates that Limonite Avenue within the western portion of the Project study area is designated a local scenic corridor (City 2017). The proposed Project site is

relatively flat and surrounded by a mostly urban built environment, and there are no other scenic resources, including trees or rock outcroppings, within or adjacent to the Project area that would be affected by work on or operation of the widened roadway. Therefore, potential impacts related to scenic resources within a state scenic highway would be less than significant and no mitigation is required.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The Project area is located in a mostly urban built environment (see site photographs in Figure 3a-e). The Project area is characterized by institutional, residential, and open space uses. The proposed Project includes improvements to an existing roadway. The widened roadway would accommodate more traffic which could be considered an incremental degradation of the visual character of the areal; however, Limonite Avenue is designated as an Urban Arterial which allows for four to six travel lanes. Overall, the proposed Project would serve and support existing uses in the Project area and surrounding areas, and as a roadway would not have a substantial negative effect on the existing visual character or visual quality of the Project site and its surroundings. Impacts would be less than significant and no mitigation is required.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less Than Significant Impact. As mentioned above, the Project is located in a primarily urbanized area. The major source of light and glare in the vicinity of the Project site is a result of surrounding residences, businesses to the east and west, occasional street lighting, and headlights from vehicles traveling at night. These uses contribute to existing moderate levels of nighttime lighting. Lighting associated with this road improvement project would be consistent with existing street lighting in the Project vicinity, although there may be incrementally more lighting along the roadway once it is widened compared to what currently exists. The Project area is within the Multiple Species Habitat Conservation Plan (MSHCP) to protect biological resources within western Riverside County, and the Santa Ana River is a major conservation area or resource within the MSHCP. The Project improvement plans (see Appendix A) show the location of new planned street lights, which would utilize standard City design with shielding to ensure ambient lighting in the MSHCP Conservation Area (i.e., Santa Ana River) is not increased. While the proposed Project may include new or replacement lighting, light levels are not expected to increase substantially over existing conditions. Implementation of the proposed Project would result in additional lanes that would carry vehicular traffic. These improvements could result in a moderate increase in lighting and glare from vehicles along the roadway, however, this increase is anticipated to be minimal and consistent with the intended use of the facility (i.e., as a four to six lane roadway) and would be less than significant and no mitigation is required.

	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 on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?***

No Impact. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and therefore require special consideration (FMMP 2018). The Project site and surrounding areas are located in an area designated as "Urban Built-Up Land" and "Other Lands" as classified by the FMMP and the Riverside County Land Information System (RCLIS 2018). According to the FMMP and RCLIS mapping, there are no Prime Farmlands, Unique Farmlands, or Farmlands of Statewide Importance on or adjacent to the Project site, therefore, no impacts would occur.

- b. *Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?***

No Impact. The Project site is an existing roadway surrounded by residential, institutional uses, Paradise Knolls Golf Course, the Santa Ana River, and the Hidden Valley Wildlife Area. Some of the land along the north side of the roadway is vacant or has been used for ranching in the past, but there are no agricultural land uses or property under Williamson Act contract currently on or adjacent to the Project site. In any case, the proposed roadway widening would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts would occur.

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

No Impact. The Project site is an existing roadway surrounded by rural residential development, institutional uses, the Paradise Knolls Golf Course, and the Santa Ana River and the Hidden Valley Wildlife Area. No land zoned as forest land or timberland exists within the proposed Project boundaries. The proposed Project would not conflict with existing zoning for forest land or timberland, therefore, no impacts would occur.

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

No Impact. The Project site is an existing roadway surrounded by residential land, institutional uses, the Santa Ana River, and the Hidden Valley Wildlife Area. There are no areas zoned as forest land or timberland within or adjacent to the proposed Project boundaries. The proposed Project would not conflict with existing zoning for forest land or timberland; therefore, no impact would occur.

- 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?***

No Impact. There are no agricultural land uses, forest land, or timberland in the vicinity of the proposed Project site, and the proposed Project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use. No impact would occur.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
III. Air Quality				
When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project:

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

No Impact. The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the federal Clean Air Act (CAA), to reduce emissions of criteria pollutants for which the South Coast Air Basin (SCAB or Basin) is in nonattainment (i.e., pollutants ozone [O₃] and particulate matter [PM₁₀ and PM_{2.5}]). The Project would be subject to SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards (SCAQMD 2016a). These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG).

A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. The most recent AQMP adopted by SCAQMD (2016 but final dated March 2017) incorporates SCAG's 2012–2035 Regional Transportation Plan (RTP) socioeconomic forecast projections of regional population and employment growth. The 2012–2035 RTP projects that population in the region would grow with the addition of approximately 1.5 million new households by 2035. As the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, SCAG addresses regional issues related to transportation, the

economy, community development, and the environment. With regard to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both the RCPG and AQMP are based, in part, on projections originating with county and city general plans. The City's 2017 General Plan Land Use Element and Mobility Element were based on a comprehensive traffic study that included widening Limonite Avenue to four lanes, and the proposed Project is consistent with those previous assumptions.

The proposed Project would be consistent with existing land use designations and transportation assumptions in the City's 2017 General Plan. As such, all potential Project-related emissions would be accounted for in the AQMP, which is crafted to bring the Basin into attainment for all criteria pollutants. Additionally, all construction activities would be in compliance with AQMP regulatory measures, including SCAQMD rules pertaining to fugitive dust (Rule 403), visibility of emissions (Rule 401), nuisance activities (Rule 402), and the limiting of VOC content in both asphalt and architectural coatings (Rules 1108 and 1113). Finally, as discussed below under Response III.b, Project operational emissions would fall below the SCAQMD thresholds of significance. Accordingly, the proposed Project would be consistent with the Projections in the AQMP. No impact would occur with respect to AQMP implementation, and no mitigation measures are required.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The proposed Project would contribute to air pollutant emissions during short-term construction and long-term operations, as discussed in detail below.

Construction

Project construction has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project site. In addition, fugitive dust emissions would result from site work. Construction activity emissions were estimated using the Road Construction Emissions Model (Version 7.1.5.1) and presented below in Table C. As shown therein, the estimate of construction-period daily emissions would not exceed SCAQMD regional nor local significance thresholds. As such, impacts would be less than significant, and no mitigation measures are necessary.

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NO₂, CO, PM₁₀, and PM_{2.5} are examined based on SCAQMD localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO₂ and CO exposure and 24 hours for PM₁₀ and PM_{2.5} exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards in the AQMP (SCAQMD 2016a). The closest receptors to the Project site include residential uses adjacent to its southern and northern

boundaries of the Project site. SCAQMD's CalEEMod User Guide (SCAQMD 2016b) recommends that when sensitive receptors are located nearer than 25 meters (82 feet) from the Project site, the minimum 25 meter/82 foot distance threshold should be used. The emissions thresholds are for receptors within 25 meters (82 feet) of the Project site; the thresholds for receptors farther away would be higher, and the Project emissions would be a smaller fraction of the thresholds.

Table C shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LSTs with receptors within 25 meters. The Project site involves the total disturbance of 9.4 acres with 5.6 acres of newly disturbed area. However, the thresholds shown are from the SCAQMD "lookup" tables for a site that is based on a maximum of 5 acres. The Project's maximum daily onsite emissions would occur during the grading phase. As shown in Table C, the local emissions from the Project would be less than the local or regional thresholds. Therefore, no significant air quality impacts would result during grading and no mitigation is required.

Table C. Estimate of Construction Emissions

Construction Phase	Daily Emissions (Pounds per Day)					
	VOC	NOX	CO	SOX	PM10	PM2.5
Maximum Daily Emissions	7	56	78	<1	12	5
SCAQMD Regional Threshold	75	100	550	150	150	55
SCAQMD Local Threshold (LST)	N/A	270	1,577	N/A	13	8
Exceed Local or Regional Threshold?	No	No	No	No	No	No

Source: SCAQMD CEQA Air Quality Handbook (SCAQMD 1993) and CalEEMod User Guide (SCAQMD 2016b). CalEEMod outputs are provided in Appendix D. N/A = Not Applicable

Notes:

VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less.

totals may not add due to rounding.

PM10 and PM2.5 emissions assume compliance with SCAQMD Rule 403.

LST Data is for SCAQMD Source Receptor Area 8, West San Gabriel Valley

Operation

The SCAQMD has also established significance thresholds to evaluate potential impacts associated with long-term Project operations. Long-term air pollutant emissions come from mobile sources, stationary sources and area sources. Mobile-source emissions are associated with vehicle travel and are a function of the number of vehicle miles traveled (VMT). There is a direct relationship between mobile emissions and VMT. As VMT increases or decreases, so do vehicle-related air pollutant emissions. Examples of major stationary sources are electric power plants, phosphate processing plants, pulp and paper mills, and municipal waste combustors. Minor sources include most asphalt plants, concrete batch plants, and bulk gasoline plants. Area source emissions are those air pollutants emitted from many individually small activities such as gasoline service stations, small paint shops, and consumer use of solvents. Area sources also include open burning associated with agriculture, forest management, and land clearing activities.

With respect to the Project, there would be no trip generation (i.e., new vehicle trips) directly attributed to the proposed Project itself as it is only intended to accommodate anticipated traffic in this portion of

the City. Therefore, there would be no direct Project-related mobile-source emissions. In addition, there would be no stationary or area emissions sources since the Project does not involve the addition of any new land uses or new stationary sources. However, for analysis purposes, the operational emissions presented in Table D show the mobile operational emissions that would occur within the City both “With” and “Without” the Project” and the net daily operational emissions resulting in 2035. The “Without Project” roadway LOS for the year 2035 would likely be LOS F since the existing roadway LOS is already LOS F, while the future “With Project” LOS for 2035 would be LOS D. This improvement in LOS results from increased roadway capacity from two lanes to four lanes which would allow for increased average speeds (i.e., less congesting and idling). The existing miles per hour (mph) for Limonite Avenue is 15 mph. With the addition of two lanes, traffic would move five mph faster than the existing speed to 20 mph on average with the Project. This increase in speed would reduce emission rates. This emission reduction is reflected in the negative net operational emissions presented in Table D for VOC, NOx, PM10, and PM2.5.

Table D. Peak Daily Operational Emissions

Source	Emissions (lbs./day)				
	VOC	NOx	CO	PM10	PM2.5
“With Project” 2035 Emissions	0.72	2.96	14.42	0.05	0.05
“Without Project” 2035 Emissions	0.88	3.99	14.23	0.06	0.06
Net Operational Emissions	-0.16	-1.04	0.19	-0.01	-0.01
SCAQMD Significance Thresholds	55	55	550	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No

lbs./day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Note: SCAQMD CEQA Air Quality Handbook 1993. CalEEMod model data sheets are included in Appendix D.

As shown in Table D, the net operational emissions would be substantially less than the SCAQMD’s operational thresholds for all criteria pollutants. Therefore, the Project’s operational impact on regional emissions would be less than significant, and no additional mitigation is required.

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

Less Than Significant Impact. The SCAQMD’s approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. As discussed earlier in Response III.a., the proposed Project would be consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants. CEQA Guidelines Section 15064(h)(3) states “A lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the Project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g. water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the Project is located. Such

plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.” In addition, the emissions calculated for the proposed Project presented earlier in Table C (construction emissions) are less than the applicable SCAQMD daily significance thresholds, which factor in cumulative effects and are designed to assist the region in attaining the applicable state and national ambient air quality standards. As such, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. As discussed earlier in Response III.a., the proposed Project would not contribute to localized air pollutant emissions during construction (short-term) and Project operations (long-term). A discussion of the Project’s potential impacts from toxic air contaminants (TAC) is provided below. The greatest potential for emissions would be related to diesel particulate emissions associated with heavy equipment operations during site grading activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the Project would be short-term in nature (no more than one year). The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, project construction is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, project-related toxic emission impacts during construction would be less than significant.

e. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. According to the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993), land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not include any the above identified uses, and therefore, would not produce objectionable odors during operation. Potential odor emitters during construction activities include asphalt paving and the use of “architectural” coatings (e.g., lane paint) and solvents. SCAQMD Rules 1108 and 1113 limit the amounts of VOCs from cutback asphalt and architectural coatings and solvents, respectively. Given mandatory compliance with SCAQMD rules, no construction activities or materials are proposed that would create a significant level of objectionable odors. As such, potential impacts during short-term construction would be less than significant assuming compliance with established regulations from the SCAQMD. No mitigation measures are required.

IV. Biological Resources	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Project area is within the County's Multiple Species Habitat Conservation Plan (MSHCP) which was developed to protect biological resources within western Riverside County (including Jurupa Valley), and the Santa Ana River is a major conservation area or resource within the MSHCP. The information in this section was derived from the *Habitat Assessment for the Limonite Widening – Bain Street to Homestead Street Project* prepared by Psomas (October 2018) based on the requirements of the MSHCP. As a result of that assessment, Psomas conducted focused surveys for sensitive plants, least Bell's vireo, and burrowing owl during the spring 2019 season (Psomas 2019a-c). The MSHCP requires that projects be evaluated for specific factors to assess how they meet MSHCP criteria. This information is used to determine whether a project site should be acquired as part of the habitat reserve or whether it should be allowed for development. This habitat assessment (HA) can also assist the Lead Agency to determine whether additional mitigation is required for Criteria Area or Additional Survey Needs Species. According

to the Regional Conservation Authority (RCA) MSHCP Information Tool, the proposed Project is not located in a designated MSHCP “Criteria Area.” This HA includes the following specific assessments:

- riparian/riverine areas and vernal pools plus associated species for both habitat types pursuant to MSHCP Section 6.1.2;
- urban/wildlands interface issues pursuant to MSHCP Section 6.1.4; and
- waters under the jurisdictions of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish and Wildlife (CDFW) as discussed in MSHCP Section 6.1.2.

In addition, the MSHCP Additional Survey Needs and Procedures identify the following species-specific survey areas within the MSHCP Plan Area which were conducted as part of the HA:

- Narrow Endemic Plants including the San Diego ambrosia (*Ambrosia pumila*), Brand’s star phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*); and
- burrowing owl (*Athene cunicularia*).

The HA found 61.8 total acres of following vegetation types and other landcovers that occur in the study area: non-native grassland, ruderal, riparian scrub, ornamental/mulefat scrub, flood control channel, lined basin, disturbed, livestock feedyard, golf course/ornamental, developed/ornamental, and developed (see Figure 7). The Project study area (i.e., the roadway and a 250-foot wide buffer on each side of the roadway) provides low to moderate quality habitat for wildlife species due to the limited amount of native plant communities, the disturbed nature of part of the study area, and surrounding urban development. Wildlife species present are expected to be relatively tolerant of human activity. However, high quality habitat along the Santa Ana River is located nearby and wildlife, including less common species, may move between that area and the study area.

Discussion

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?**

Less Than Significant Impact With Mitigation Incorporated. The Project study area includes the Limonite Avenue roadway plus and an additional 250-foot buffer on either side of the roadway to enable evaluation of potential indirect and cumulative effects from the proposed Project. The Project study area includes rural residences, vacant land, institutional uses, and open space. There are ornamental trees and generally low-density, ornamental to weedy vegetation, paved and unpaved streets and driveways, fallow graded lots, a wastewater treatment facility, a cattle feed lot, and the Santa Ana River south of Limonite Avenue and just south of the southern margin of the study area.

Prior to fieldwork, literature reviews were conducted to identify special-status plants, wildlife, and habitats known to occur in the vicinity of the Project site. The literature reviews included the California Native Plant Society (CNPS) Inventory of Rare and endangered Plants (CNPS 2018), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2018a), the most recent Special Animals list (CDFW 2018c), and U.S. Fish and Wildlife Service (USFWS) listed species occurrence information (USFWS 2018).

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Vegetation Types and Other Areas

Limonite Avenue Widening – Bain to Homestead Project

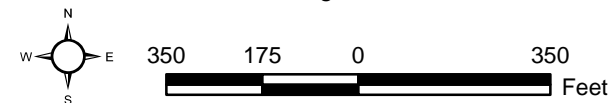


Figure 7



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In addition, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Soil Survey Geographic database (USDA 2018) was reviewed to identify the soil series that occurs in the study area. As part of the HA, a site assessment of the study area was conducted on September 6, 2018 to assess current site conditions, evaluate plant and wildlife species present, map vegetation types, delineate potential jurisdictional resources and evaluate the potential of the Project site to support sensitive and special-status species.

Based on the improvements shown in Figures 5a-d, the Project would remove approximately 9.3 acres of disturbed land and 0.14 acre of riparian scrub which is the only native vegetation that would be impacted by construction.

MSHCP Resources

The Riverside County Board of Supervisors approved the MSHCP in 2003 and received permitting approval from the U.S. Fish and Wildlife Service (USFWS) in June 2004. This plan establishes Criteria Areas (i.e., reserves) to adequately conserve many species listed as Threatened and Endangered by the USFWS and the CDFW. Impacts on Covered Species would be considered fully mitigated with the City's participation in the MSHCP program. With the exception of a few species, such as least Bell's vireo (*Vireo bellii pusillus*), which is a Riparian/Riverine species), focused surveys are not required for Covered Species and no additional permitting would be necessary.

At the time the MSHCP was approved in 2003, Jurupa Valley was unincorporated but has since incorporated as a new City in 2017, therefore, the City of Jurupa Valley is responsible for implementing the MSHCP within its boundaries. The study area is located in the MSHCP's Jurupa Area Plan but it is not in an Area Plan Subunit. The study area is adjacent to Existing Core A which consists of Prado Basin and the Santa Ana River and functions as a Linkage for wildlife movement connecting Orange County to the west with San Bernardino County to the north. This Core is constrained on all sides by existing urban development and agricultural use. The area south of Limonite Avenue and west of the San Sevaine Flood Control Channel is designated Public/Quasi-Public land.

Riparian/Riverine Resources

The HA determined that the San Sevaine Flood Control Channel and the lined pond of the Jurupa Community Services District (JCSD) were artificial structures, unvegetated, and would not be impacted by construction of the Project (Psomas 2018). Therefore, no further action is required relative to these facilities. However, Pyrite Creek contains riparian vegetation and is considered a Riparian Resource. According to the improvement plans shown in Figures 5a-d, the Project would remove approximately 0.14 acre of riparian scrub along Pyrite Creek. The creek, including the portion adjacent to Limonite Avenue, provides marginal habitat for wildlife species associated with riparian/riverine resources (i.e., least Bell's vireo) and it is connected to larger areas of intact habitat in the Santa Ana River to the south. Therefore, pursuant to the MSHCP, a focused survey for least Bell's vireo was conducted in spring/summer 2019 (Psomas 2019b). The least Bell's vireo was not observed within the study area; however, it was observed approximately 1,100 feet south and outside of the study area. Because it occurs in the vicinity, it could occur in the study area in the future. The HA determined the habitat in the study area was not extensive enough to have potential for southwestern willow flycatcher (*Empidonax traillii extimus*) or western

yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Impacts to these resources are potentially significant and require mitigation.

Jurisdictional Resources

The HA determined the San Sevaire Channel and the JCSD lined pond are jurisdictional features but do not have riparian/riverine resources and would not be impacted by the Project construction (Psomas 2018). However, Pyrite Creek would be impacted and is likely subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the CDFW. According to Figure 5a-d, the Project would impact approximately 0.10 acre of land in Pyrite Creek under the jurisdiction of the USACE and RWQCB, and 0.26 acre of land in Pyrite Creek under CDFW jurisdiction. These impacts are potentially significant and require mitigation (i.e., Project construction would require environmental permitting from these regulatory agencies prior to initiation of project construction). The HA determined there were no other jurisdictional features within the Project study area.

Vernal Pools

A former livestock watering pond in the western portion of the study area, along the north side of Limonite Avenue, is listed in the National Wetlands Inventory (USFWS 2019) as a freshwater pond and may provide suitable habitat for Riverside fairy shrimp (*Streptocephalus woottonii*). The pond covers 0.06 acre (2,600 square feet). It should be noted this former pond does not meet the federal requirements to be considered a vernal pool. Based on the proposed Project design, this former pond would be impacted and a focused survey for fairy shrimp would be required under the MSHCP. If listed fairy shrimp are present, impacts to the pond should be avoided or a DBESP would be required if avoidance is not feasible. This impact is potentially significant and requires mitigation.

It should be noted that legal access to the pond site was not granted by the property owner during preparation of the Initial Study, therefore, the mitigation recommends conducting protocol surveys of the pond area for fairy shrimp and taking specific actions (i.e., establishing performance standards) based on the results of those surveys prior to initiation of construction.

Special-Status Plants

According to the MSHCP focused plant surveys are required for Narrow Endemic plant species if suitable habitat is present in the study area. The HA found potentially suitable habitat for the San Diego ambrosia, Brand's star phacelia and San Miguel savory. A focused survey was conducted to determine the presence/absence of these species in the study area; no Narrow Endemic plant species or other special status plant species were observed. The HA determined that there was no suitable habitat for other special status species not covered by the MSHCP (Psomas 2019a).

Special-Status Wildlife

Seven species reported in the literature review are California Species of Special Concern. Two species, the burrowing owl and Stephen's kangaroo rat, are covered by the MSHCP and addressed below. The other five species are not covered by the MSHCP but have been reported in the surrounding region, so they are addressed in this section as well.

Burrowing Owl (BUOW). The HA determined the Project study area contained suitable habitat for BUOW. A focused survey was conducted in spring/summer 2019 and no BUOW were observed. Therefore, no

BUOW currently occur in the study area (Psomas 2019c). However, BUOW move burrows seasonally and are known from the vicinity, so they have potential to occur in the future. A pre-construction survey would be required to confirm the absence of BUOW prior to the initiation of construction.

Stephens' Kangaroo Rat (SKR). In response to the federal listing of Stephens' kangaroo rat (*Dipodomys stephensi*), the Riverside County Habitat Conservation Agency (RCHCA) was formed to acquire and manage habitat for SKR and other associated special status species. The RCHCA's SKR Habitat Conservation Plan (HCP) was developed to meet the requirements of the program's Federal Endangered Species Act Section 10(a) permit and is managed by the RCHCA. The HCP establishes a Reserve System where activities in the core reserve areas are limited and/or restricted. Areas outside the Reserve System are within a designated Fee Area. The Project study area is not located within the Reserve System but is within a designated Fee Area. Therefore, a focused survey for SKR is not required and all potential impacts are mitigated through the RCHCA by payment of an MSHCP mitigation fee.

California black rail (*Laterallus jamaicensis coturniculus*) is a State-listed Threatened species that occurs where perennial water and dense vegetation for nesting are present. However, suitable habitat for this species is not present and so it is not expected to occur in the study area. This impact is less than significant and no mitigation is needed.

Santa Ana speckled dace (*Rhinichthys osculus*) can occur in permanently flowing streams with shallow cobble and gravel riffles such as the nearby Santa Ana River. Although unlikely, it is possible this species may occur in Pyrite Creek during periods of high flows. The HA recommended that construction of the box culverts for Pyrite Creek be scheduled during the dry season when there is no flow in the channel to avoid impacts on this species. Although this impact is considered less than significant, mitigation would be added to address timing of the box culvert construction.

Southern California legless lizard (*Anniella stebbinsi*) suitable habitat for this species does occur in the study area. If present, impacts would be limited and would not reduce regional populations below self-sustaining levels. Therefore, impacts on this species are less than significant and not expected limit road construction (i.e., no mitigation is needed).

California glossy snake (*Arizona elegans occidentalis*) occurs in a range of scrub and grassland habitats, and suitable habitat does occur in the study area. However, all reported occurrences within 20 miles are from the 1930s and 1940s so this species has low potential to occur in the study area and impacts are not expected to represent a constraint on road construction. This impact is less than significant and no mitigation is needed.

Yellow rail (*Coturnicops noveboracensis*) occurs in freshwater marshes, meadows, and seeps, but no appropriate habitat is present so the species is not expected to occur onsite. This impact is less than significant and no mitigation is needed.

Various bat species. The Project study area does contain suitable foraging habitat for western mastiff bat, western yellow bat, and pocketed free-tailed bat. However, the areas of the Project that would be directly affected by road and culvert construction have no buildings or other structures that bats would utilize. Therefore, potential impacts on these species would be limited, of short duration, and would not reduce

regional populations below self-sustaining levels. This impact is less than significant and does not require mitigation.

Nesting Raptors

Trees in the Project study area may be used for nesting by raptors and state regulations prohibit activities that “take, possess or destroy” any raptor nest or egg. The noise and disturbance associated with road construction may also disturb a nesting raptor if present immediately adjacent to the actual Project impact area. If construction would occur during the nesting season, generally between February 1 and June 30, a pre-construction survey is required to ensure that no raptor nests are impacted. If an active nest is present, construction would have to be temporarily restricted in the immediate vicinity of the nest until raptor nesting is completed. Implementation of mitigation measure BIO-11 would reduce this potentially significant impact to less than significant.

Migratory Bird Treaty Act

The Project study area has potential to be used by nesting birds which are protected by the Migratory Bird Treaty Act (MBTA). Birds have potential to nest in any of the study area’s vegetation, bare ground, and also on adjacent structures. The MBTA prohibits activities that result in the direct take (i.e., killing or possession) of a migratory bird. If construction would occur during the peak bird nesting season (March 1 to June 30, as defined by Section 7.5.3 of the MSHCP), a pre-construction survey would be required to ensure that no nests were impacted. If an active nest was present, construction would have to be restricted in the immediate vicinity of the nest. Implementation of mitigation measure BIO-11 would reduce this potentially significant impact to less than significant.

Other MSHCP Issues

Urban/Wildlands Interface. Indirect impacts, often called “edge effects,” are those that affect the quality of nearby wildlife habitat resulting from disturbance by construction such as noise, dust, and urban pollutants and/or the long-term use of the site. Widening a roadway in proximity to an MSHCP Conservation Area may result in edge effects that adversely affect biological resources within the MSHCP Conservation Area. The proposed Project is 1,200 feet from Existing Core A on its east end and 370 feet from Core A on the west end, and the western end of the study area is adjacent to Public/Quasi-Public Lands. Construction activities have the potential to generate edge effects that may impact Public/Quasi-Public Lands which support listed or otherwise sensitive species. Therefore, this impact is potentially significant and the City would implement the Urban/Wildlands Interface Guidelines in Section 6.1.4 of the MSHCP as mitigation to avoid these edge effects.

Drainage/Toxics. Stormwater runoff from construction and operation of the proposed Project (i.e., the widened roadway) have the potential to adversely affect water quality of the onsite drainages and the downstream Santa Ana River (i.e., MSHCP Existing Core A). The storm drain system of the improved roadway is designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. Specific measures to protect short- and long-term water quality are addressed in Section IX, *Hydrology and Water Quality* (Mitigation Measure HYD-1 and Policies, Plans, and Programs 3.9-1 through 3.9-4) as well as BIO-10 (see below).

Lighting. Night lighting would be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. The Project improvement plans (see Appendix A) show the location of new planned street lights, which would utilize standard City design with shielding to ensure ambient lighting in the MSHCP Conservation Area is not increased. While the proposed Project may include new or replacement lighting, light levels are not expected to increase substantially over existing conditions. Therefore, no mitigation measures are required.

Noise. The proposed Project would incrementally increase noise along the improved roadway which could affect the MSHCP Conservation Area. The Project improvement plans show no noise or visual walls are proposed as part of this Project at this time. For planning purposes, noise levels within the MSHCP Conservation Area would not exceed residential noise standards as they relate to adjacent land uses along this portion of Limonite Avenue.

Invasive Species. Ornamental landscaping may introduce new invasive species to the surrounding open space. Invasive species have the potential to spread into the surrounding natural open space and displace native species, hybridize with native species (thereby impacting the genetic integrity of the native species), alter biological communities, or alter ecosystem processes. This could degrade the quality of the adjacent vegetation associated with the Santa Ana River (MSHCP Existing Core A). The current Project plans do not show any landscaping planned at this time, so there would be no potential impacts in this regard and no mitigation is required. However, Mitigation Measure BIO-10 includes language to address landscaping if it is added to the Project in the future.

Barriers. New or modified land uses adjacent to the MSHCP Conservation Area are expected to incorporate barriers where appropriate to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. However, the proposed roadway Project itself does not propose any physical barriers, native landscaping, rocks/boulders, fencing, or walls adjacent to the Santa Ana River. Therefore, the Project would have no impacts in this regard and no mitigation is required.

Given the nature of the proposed Project, i.e., the widening of an existing road, an increase in human activity and unauthorized access to adjacent open space areas is not expected to increase above existing conditions.

Summary of Impacts and Mitigation

The Habitat Assessment for the proposed Project determined there could be significant or potentially significant impacts to the following biological resources:

- Riparian/Riverine Resources (loss of 0.14 acre of riparian scrub);
- least Bell's vireo (listed species);
- Pyrite Creek (impact 0.10 acre USACE/RWQCB and 0.26 acre CDFW jurisdictional land);
- Fairy Shrimp (former livestock pond);
- Narrow Endemic Plants (spring survey for NEP);
- Burrowing Owl (presence/absence survey);

- Stephens' Kangaroo Rat; and
- Raptors and Nesting Birds.

Therefore, the proposed Project would implement the following mitigation:³

BIO-1 Riparian/Riverine Resources. Prior to the start of road construction, the City shall investigate alternative designs for the two Pyrite Creek culverts that would reduce or eliminate impacts to jurisdictional resources and/or wildlife movement along the creek. If alternative designs are not feasible, the City shall prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) report to identify specific impacts to riparian/riverine resources and recommend appropriate onsite and/or offsite compensation per the MSHCP. The DBESP report shall describe the proposed project's direct and indirect effects on riparian/riverine resources; demonstrates why avoidance is not feasible; minimization and compensation through minimization and/or compensation through restoration or enhancement; and a finding demonstrating that the mitigation would be biologically equivalent or superior to the habitat that would be impacted. Mitigation may include, but would not be limited to, (1) purchase of credits at a resource-agency approved conservation bank; (2) preservation of an existing riparian/riverine resource location; (3) enhancement of habitat at a known riparian/riverine resource location; and/or (4) creation of new riparian/riverine resource. The DBESP shall also describe monitoring requirements and performance criteria associated with the proposed mitigation. The City shall submit the DBESP to the RCA for review and approval. Prior to the approval of a DBESP, the Riverside County Resource Conservation Authority (RCA) shall provide the DBESP to the USFWS and CDFW for a 60-day review and response period. The City shall obtain approval on the DBESP prior to the initiation of construction. In consultation with the RCA, the City may include Least Bell's Vireo under BIO-2 and Fairy Shrimp under BIO-4. The City shall obtain an approved DBESP prior to starting grading for the improved roadway within 200 feet of Pyrite Creek.

BIO-2 Least Bell's Vireo. Prior to the start of road construction, the City shall investigate alternative designs for the two Pyrite Creek culverts that would reduce or eliminate impacts to least Bell's vireo (LBV) habitat along the creek. If alternative designs are not feasible, construction should occur between August 1 and April 9 which is outside the LBV breeding season if feasible. Pursuant to MSHCP guidelines, a focused LBV survey is required if construction would occur during the breeding season which is between April 10 and July 31. If a focused survey determines that the site is occupied, per MSHC Section 9 at least 90 percent of the occupied portions of the site that provide for the long-term conservation value for the identified species shall be conserved in a manner consistent with conservation of the species. If 90 percent of occupied habitat cannot be avoided, then the City would prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) report to identify specific LBV impacts and recommend appropriate onsite and/or offsite compensation per the MSHCP. The DBESP report shall describe the proposed project's direct and indirect effects on LBV; demonstrates why avoidance is not feasible; minimization and compensation through

³ These measures are based on Recommendations 1-11 in the Project Habitat Assessment (Psomas 2018).

minimization and/or compensation through LBV habitat restoration or enhancement; and a finding demonstrating that the mitigation would be biologically equivalent or superior to the habitat that would be impacted. Mitigation may include, but would not be limited to, (1) purchase of credits at a resource-agency approved conservation bank; (2) preservation of an existing LBV conservation area; (3) enhancement of habit at a known LBV location; and/or (4) creation of new LBV habitat. The DBESP shall also describe monitoring requirements and performance criteria associated with the proposed mitigation. The City shall submit the DBESP to the RCA for review and approval. Prior to the approval of a DBESP, the Riverside County Resource Conservation Authority (RCA) shall provide the DBESP to the USFWS and CDFW for a 60-day review and response period. The City shall obtain approval on the DBESP prior to the initiation of construction. In consultation with the RCA, the City may include Riparian/Riverine Resources under BIO-1 and Fairy Shrimp under BIO-4. The City shall obtain an approved DBESP prior to starting grading for the improved roadway within 200 feet of Pyrite Creek.

BIO-3 Jurisdictional Resources. If feasible, the City would avoid impacts on jurisdictional waters associated with Pyrite Creek. Subsequent to the CEQA process, regulatory permits or approvals would likely be necessary from the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) for impacts to waters under the regulatory authority of those agencies. Prior to the start of any grading or road construction, the City shall participate in a pre-application meeting with the affected agencies prior to submittal of permit applications to discuss existing conditions, confirm the agencies' jurisdiction over water resources in the study area, discuss impacts to these resources that would result from the project; discuss proposed avoidance, minimization, and mitigation measures to offset these impacts, and to discuss the regulatory permitting process. Following the pre-application meeting, the City of Jurupa Valley would prepare and process the appropriate permits through the appropriate resource agencies. It is possible that additional actions or design restrictions on the Project may be required by the resource agencies regarding impacts to areas under their respective jurisdictions.

BIO-4 Fairy Shrimp. If feasible, impacts to the former livestock watering pond would be avoided (south end of APN 162-200-011). If avoidance of the former pond is not feasible, a focused survey for listed fairy shrimp (FS) shall be conducted per MSCHP and other appropriate protocols prior to the start of construction of any roadway segment within 200 feet of the former pond site. The current USFWS survey protocol and MSHCP require one dry season and one wet season survey be completed within a three-year period by a permitted biologist. A dry season survey can be conducted any time of year when the substrate is dry. Based on lack of recent inundation, a wet season survey is not feasible and the USFWS shall be contacted to request a modified protocol survey that would consist of a dry season survey only. If FS are not found in the pond during the dry season survey, it would be concluded no FS are present in the pond and no further surveys or actions are required relative to FS.

If FS are observed during the dry season survey and impacts to their habitat cannot be avoided, direct and indirect impacts on FS habitat and its associated functions and values shall be minimized to the greatest extent possible. Impacts that are unavoidable shall be mitigated such that the lost functions and values are replaced using a Determination of Biologically

Equivalent or Superior Preservation (DBESP). The City shall prepare a DBESP report that describes the proposed project's direct and indirect effects on FS habitat; demonstrates why avoidance is not feasible; provides minimization and/or compensation through restoration or enhancement; and a finding demonstrating that the mitigation would be biologically equivalent or superior to the habitat that would be impacted. Mitigation may include, but would not be limited to, (1) purchase of credits at a resource-agency approved conservation bank; (2) preservation of an existing FS location; (3) enhancement of habitat at a known FS location; and/or (4) creation of FS habitat and relocation of project soils to the creation site. The DBESP shall also describe monitoring requirements and performance criteria associated with the proposed mitigation. The City shall submit the DBESP to the RCA for review and approval. Prior to the approval of a DBESP, the Riverside County Resource Conservation Authority (RCA) shall provide the DBESP to the USFWS and CDFW for a 60-day review and response period. The City shall obtain approval on the DBESP prior to the initiation of construction. In consultation with the RCA, the City may combine the DBESP for FS with the DBESP required under BIO-1 and/or BIO-2.

BIO-5 Sensitive Plants. Prior to the start of road construction activities, a focused spring survey for Narrow Endemic Plant (NEP) and sensitive plant species not covered by the MSHCP as having a potential to occur in the Project area shall be conducted. The Project Habitat Assessment identified the following plants for a spring survey - San Diego ambrosia, white rabbit-tobacco, prairie wedge grass, and San Bernardino aster. The survey shall be conducted by a qualified biologist during the appropriate blooming period for all species with potential to occur in the study area. This generally requires multiple surveys between March and July. If a Narrow Endemic Plant species is detected, then impacts to 90 percent of those portions of the project site that provide for long-term conservation value of the NEP shall be avoided. If the 90 percent threshold cannot be met, a Determination of Biologically Equivalent or Superior Preservation (DBESP) would be required to identify appropriate compensation for the impact. If a plant species not covered by the MSHCP is detected, then additional avoidance, minimization, or compensation actions may be required and would be implemented as needed, depending on the species' status and size of the impacted population. The City shall obtain an approved DBESP for sensitive plants prior to starting grading for the improved roadway. In consultation with the Riverside County Resource Conservation Authority (RCA), the City may combine the DBESP for sensitive plants with the DBESP for Riparian/Riverine Resources required under BIO-1, the DBESP for least Bell's vireo under BIO-2, and/or the DBESP for fairy shrimp in BIO-4.

BIO-6 Burrowing Owl 1. Pursuant to Section 6.3.2 of the MSHCP, a focused survey for burrowing owl (BUOW) would be conducted prior to the start of Project construction. The survey shall follow the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (Riverside 2006). This includes a habitat assessment, which was completed as part of the Project Habitat Assessment, followed by a focused survey for burrows and individual owls. Section 9 of the MSHCP states that if the site contains or is part of an area supporting less than 35 acres of suitable habitat, or the survey reveals that the site and the surrounding area supports fewer than 3 pairs of BUOW, then the onsite owls

would be passively or actively relocated following accepted protocols. If the site supports more than 3 pairs of owls or greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs would be conserved onsite.

BIO-7 Burrowing Owl 2. A pre-construction burrowing owl (BUOW) survey shall be conducted by a qualified biologist within 30 days prior to ground disturbance. If BUOW is observed and avoidance is not possible, then the County Resource Conservation Authority (RCA) and Federal and State Wildlife Agencies shall be notified within 24 hours and a qualified biologist retained to prepare and implement a BUOW Protection and Relocation Plan (Plan).

The Plan shall be designed to humanely evict BUOW from all potentially occupied burrows and crevices within the Project study area. Prior to implementation of the Plan, the City shall obtain approval for the methods and timing of the effort by California Department of Fish and Wildlife (CDFW) and the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). Also prior to exclusion, the City would coordinate capturing and tracking the owls onsite and in the vicinity to determine if any active nests occur onsite. Upon receipt of approval and confirmation of no active nests onsite, the Plan biologist would conduct a preliminary survey of the project site. The necessary number of exclusion devices would then be purchased and constructed. Exclusion devices would have one-way doors for each earthen burrow and avian exclusion netting for large rocky outcrops with potential to house burrowing owl. Seven days after door installation, the Plan biologist would remove all the doors and collapse the burrows.

BIO-8 Stephens' Kangaroo Rat Fee. Prior to the start of Project grading, the City shall pay the appropriate Stephens's Kangaroo Rat (SKR) fee to the County Resource Conservation Authority (RCA) per the County's established SKR Habitat Conservation Plan (HCP).

BIO-9 Pyrite Creek Construction. The City shall limit construction along the Pyrite Creek channel so that no work occurs in the channel itself when surface water is flowing in the channel to avoid potential impacts on Santa Ana speckled dace.

BIO-10 Indirect MSHCP Effects. The City shall implement the design guidelines in Section 6.1.4 of the MSHCP to minimize indirect impacts on adjacent Public/Quasi-public lands (i.e., Santa Ana River) including actions related to drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development. The following measures would be incorporated to minimize adverse effect on water quality and the adjacent Public/Quasi-public lands:

- a. **Drainage/Toxics:** A Storm Water Pollution Prevention Plan shall be prepared and implemented, including standard construction Best Management Practices to prevent sediment and petroleum products from entering drainages.
- b. **Invasive Species:** If any landscaping is included as part of the proposed Project, the landscaping plan would be reviewed by a qualified biologist to ensure that invasive species are not included in the plant palette. The Landscape Plan shall also use low water-

using plants to the extent feasible to be consistent with Assembly Bill 1881. In addition, wattles used for erosion control would be certified as weed-free.

BIO-11 Raptors and Nesting Birds. Construction should be planned to occur outside the peak nesting season for raptors (February 1 to June 30) and the peak nesting season for birds (March 1 to June 30). If construction would occur between February 1 and June 30, a pre-construction survey for active raptor/bird nests would be required. Restrictions may be placed on construction activities in the vicinity of any active nest until the nest is no longer active, as determined by a qualified Biologist.

Summary of Impacts After Mitigation

With implementation of Mitigation Measures BIO-1 through BIO-11, potential impacts related to listed or otherwise sensitive species, 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, would be reduced to less than significant levels.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified 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. As outlined in Item a. above, implementation of the proposed Project may have potentially significant impacts on one or more listed or otherwise sensitive species of plant or animal. Project construction would remove 0.14 acre of riparian scrub (i.e., riparian/riverine resources) associated with Pyrite Creek. It would impact 0.10 acre of land under USACE/RWQCB jurisdiction and 0.26 acre of land under CDFW jurisdiction. However, implementation of Mitigation Measures BIO-1 through BIO-11 would reduce potential impacts on riparian habitat or other sensitive natural communities, including adjacent resources of the Santa Ana River, to less than significant levels, and no additional mitigation is required.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?***

Less Than Significant Impact With Mitigation Incorporated. The Project Habitat Assessment (HA) found no federally protected wetlands or vernal pools within the boundaries of the Project study area. However, it did find a former livestock watering pond that was listed on the National Wetlands Inventory. The HA indicated this feature has no downstream connectivity, is not a vernal pool, and did not meet the parameters of a federal wetland. However, the proposed Project may have significant impacts on listed fairy shrimp species if they are present in this former pond. Therefore, Mitigation Measure BIO-4 (Fairy Shrimp) is recommended to reduce potential impacts on this resource to less than significant levels.

In addition, the HA concluded that regulatory permitting through the various wildlife agencies would be needed for impacts to Pyrite Creek unless the Project is redesigned (i.e., currently proposed for two box culverts). However, implementation of Mitigation Measures BIO-1, -2, -3, -9, and -10 would reduce

potential impacts on resources that fall under the Clean Water Act, including potential indirect impacts on the nearby Santa Ana River, to less than significant levels, and no additional mitigation is required.

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

Less Than Significant Impact. There are no identified wildlife corridors within or adjacent to the Project study area, although some smaller wildlife may travel along the Pyrite Creek channel at times. The Santa Ana River is a biologically important corridor for plant and wildlife connectivity and movement in Riverside County. The Project study area is approximately 370 feet north of the River's floodplain on the east end of the study area and 1,200 feet north of the floodplain on the west end. Due to these distances and location relative to the River, it is unlikely the proposed Project would appreciably affect any animal movement. Therefore, the Project would not have any significant direct or indirect impacts on wildlife movement or corridors and no mitigation is needed.

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

No Impact. There are no oak or other native trees or woodlands within the Project site. The City does not have an adopted tree protection or preservation ordinance, but they implement the following General Plan policies on a case by case basis. To date under Policy COS 1.2 the City has not designated any species of significant trees but the policy is still in place in case one or more species are designated in the future:

COS 1.2 -Protection of Significant Trees: Protect and preserve significant trees, as determined by the City Council upon the recommendation of the Planning Commission. Significant trees are those trees that make substantial contributions to natural habitat or to the urban landscape due to their species, size, or rarity. In particular, California native trees should be protected.

COS 1.3 - Other Significant Vegetation: Maintain and conserve superior examples of vegetation, including: agricultural wind screen plantings, street trees, stands of mature native and non-native trees, and other features of ecological, aesthetic, and conservation value.

LUE 11.12 - Natural Features. Require development projects, including public projects, utilities, and earthworks/ grading, to protect and preserve natural features, such as unique natural terrain, rocky outcrops, ridgelines, drainage ways, mature trees, and native vegetation, wherever possible, particularly where they provide continuity with more extensive regional systems.

The proposed Project would not remove any significant native or large trees although some bushes and weedy vegetation would be removed as the existing roadway and shoulder areas along the south side of Limonite Avenue are cleared prior to new road construction/widening. There would be no significant impacts in this regard and no mitigation is required.

- f. *Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?***

Less Than Significant Impact With Mitigation Incorporated. The entire project site lies within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The

MSHCP is a comprehensive, multi-jurisdictional Habitat conservation Plan focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP allows for the County of Riverside and cities within the plan area (including Jurupa Valley) to manage local land-use decisions and maintain a strong economic climate while addressing the requirements of the state and federal Endangered Species Acts. The MSHCP is one of several large, multi-jurisdictional habitat-planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region.

A review of the MSHCP was performed prior to field work. Within the MSHCP boundaries, the Project site lies within the Jurupa Area Plan and is adjacent to Public/Quasi-Public (PQP) lands (County of Riverside Parks and Recreation). The Project site is not within an MSHCP Criteria Cell or Linkage, although it is adjacent to Existing Core A which comprises the nearby Santa Ana River.

The Santa Ana River Regional Wildlife Refuge Area (SARRWRA) is located southwest of the Project study area. Under the MSHCP, this area is referred to as Existing Core A and is identified as important habitat for a wide range of species covered under the MSHCP. The widening improvement proposed to Limonite Avenue is a covered activity under the MSHCP, with Limonite Avenue classified as an urban arterial with an ultimate 152-foot right-of-way (ROW). Improvement of this segment of Limonite Avenue would have no direct physical impacts on the SARRWRA. These PQP lands occur within an area designated Existing Core A. The Project improvement plans (see Appendix A) do not show any PQP lands that would be impacted by construction of the proposed Project. Potential impacts of the Project on all applicable resources and topics of the MSCHP are outlined in Section (a) above. Based on the preceding analysis, the Project would have less than significant impacts in this regard and no additional mitigation is required (i.e., other than Mitigation Measures BIO-1 through BIO-11).

V. Cultural Resources	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The information in this section was derived from the *Cultural Resources Survey Report* for the Limonite Avenue Widening Project, Bain Street to Homestead Street, by Psomas dated November 1, 2018. Note that the mitigation recommended in this section is consistent with the measures outlined in the Psomas study.

Discussion

Would the Project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. A cultural resources field survey and literature records search were conducted for the proposed Project (Psomas 2018). The records search was conducted at the Eastern Information Center, located at the University of California, Riverside. The records search included a review of all available cultural resource surveys and excavation reports and site records for an area within a 0.5-mile radius of the Project area. No historic resources listed on the National Historic Register of Historic Places or the California Register of Historical Resources were present within the proposed Project area or the 0.5-mile search radius. There are also no California Historic Landmarks, California Points of Historic Interest, or any locally designated historic resources within the proposed Project area or the 0.5-mile search radius.

One historical resource was identified through the archaeological record search. The Pfennighausen Ranch, resource P-33-18664, is located within the Project study area boundaries and consists of a craftsman-influenced single-family residence originally constructed in 1913, a shed constructed around 1930 with an adjoining corral constructed by 1948, portions of an original well, and a Quonset hut. This study did not include a field study to assess the property, but the site was recorded and assessed in 2010. The results of the 2010 field study concluded that the resource fails to meet the qualifications for significance due to the alterations made to the built structures over the years and the vast subdivision of the original parcel. None of the resources that encompass the Pfennighausen Ranch are currently listed, individually or collectively, in the either the NRHP or the CRHR. The Project may cause minor impacts to

landscaping and vacant farm property within the Limonite right-of-way. However, the overall value of the resources would not be devalued because they are not currently eligible for listing. Therefore, the Project would not impact any significant historic resources.

It should be noted that the Project area may contain buried resources associated with the Pfennighausen Ranch which may provide valuable information regarding early 20th century ranching. Therefore, the potential for encountering significant buried historic era resources is plausible when developing within native sediment. Implementation of Mitigation Measures CUL-1 and CUL-2, which describe the archaeological monitoring procedures and treatment plan if a cultural resource is inadvertently discovered, is recommended. Implementation of these measures would reduce any potential impact to a less than significant level.

CUL-1 Archaeological Monitoring. A qualified archaeologist (the “Project Archaeologist”) shall be retained by the City Planning Department prior to the start of construction. The City shall identify culturally sensitive areas prior to retaining a qualified archaeologist based on the anticipated excavation/grading depths. The City shall provide the locations and anticipated depths of all areas that require Archaeological Monitoring to the Project Archaeologist prior to the start of construction.

The Project Archaeologist shall monitor all ground-disturbing activities within the Culturally Sensitive Areas identified by the City. If archaeological resources are encountered during the implementation of the Project, ground-disturbing activities would be temporarily redirected from the vicinity of the find. The Project Archaeologist would be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find. If the resource is significant, CUL-2 shall apply.

CUL-2 Archeological Treatment Plan. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The Project Archaeologist and the City Planning Department shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the archaeological resource(s) in accordance with current professional archaeology standards (typically this sampling level is two (2) to five (5) percent of the volume of the cultural deposit). At the completion of the laboratory analysis, any recovered archaeological resources shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Jurupa Valley Planning Department and the Eastern Information Center.

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

Less Than Significant Impact with Mitigation Incorporated. As described previously, a records search was conducted through the Eastern Information Center located at the University of California, Riverside in October 2018. No significant archaeological resources are present on the surface of the Project area. The results of the records search and literature review of documents on file at the EIC indicate 11 historic-era archaeological sites/cultural resources are recorded within one mile of the Project area. One resource, the Pfennighausen Ranch, resource P-33-18664, was identified within the Project area. However, the components of the ranch no longer retain the necessary integrity to qualify as a significant historic-era archaeological site. Although the Project would not impact any known significant archaeological resources, there is a possibility that historical and/or archaeological material would be uncovered during ground-disturbing activities for the proposed Project. Thus, implementation of CUL-1 and CUL-2, which describe the archaeological monitoring procedures and treatment plan if a cultural resource is inadvertently discovered, would reduce any potential impacts to buried resources to a less than significant level, and no additional mitigation is required.

c. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant Impact with Mitigation Incorporated. As described above, the Project area has previously been disturbed with the development of Limonite Avenue. According to the Riverside County Land Information System, Paleontological Sensitivity Map (RCLIS 2018), a large portion of the City of Jurupa Valley is designated as High Potential for paleontological sensitivity. Furthermore, deposits in the entire proposed Project area consist of Pliocene to Holocene alluvium. Given the extensive ground disturbance and development of Limonite Avenue, any superficial paleontological resources that could have existed at one time have likely been previously unearthed by past development activities. Deeper excavations at depths below five feet in the proposed Project area that extend down into older Quaternary deposits may encounter significant vertebrate fossil remains similar to those from the famous Rancho La Brea asphalt deposits in Los Angeles or other “Ice Age” deposits found throughout southern California.

No paleontological resources were identified within the Project’s boundaries, so the Project would not cause an adverse change in the significance of any known paleontological resources. However, the paleontological record search identified two vertebrate fossils within the general Project area (LACM 7811 and LACM 1207)(Appendix C). Based on the record search, there is a potential for encountering significant fossils within native soils. The Project could result in the disturbance and/or destruction of paleontological resources that may be present in deeper Pleistocene alluvial deposits that underlie the project segment. Therefore, implementation of CUL-3 and CUL-4 would reduce potential impacts to paleontological resources to a less than significant level.

CUL-3 Paleontological Monitoring. A qualified paleontologist (the “Project Paleontologist”) shall be retained by the City Planning Department prior to the start of construction. The City shall identify areas sensitive to paleontological resources prior to retaining a qualified paleontologist based on the anticipated excavation/grading depths. The City shall provide the locations and anticipated depths of all areas that require Paleontological Monitoring to the Project Paleontologist prior to the start of construction.

The Project Paleontologist shall monitor earth moving activities within the areas sensitive to paleontological resources identified by the City. If paleontological resources are encountered during implementation of the Project, ground-disturbing activities would be temporarily redirected from the vicinity of the find. The Project Paleontologist would be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find. If the resource is significant, CUL-4 shall apply.

CUL-4 Paleontological Treatment Plan. If a significant paleontological resource(s) is discovered, the Project paleontologist and the City Planning Department shall develop a treatment plan which shall include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation in the find a local qualified repository, and preparation of a report summarizing the find.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation Incorporated. There is no indication that human remains are present within the Project area. The records search did not yield any evidence of a prehistoric or historic cemetery on or near the Project site. Project-related earth disturbance, however, has the potential to unearth previously undiscovered remains, resulting in a potentially significant impact.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner would notify the NAHC, who would then notify the Most Likely Descendent (MLD). Further provisions of PRC 5097.98 are to be followed as applicable. In addition, implementation of Mitigation Measures CUL-1 and CUL-3 require monitoring of grading in native soils by qualified cultural specialists who would be able to immediately identify human burial remains and halt construction if necessary.

Therefore, compliance with existing regulations and implementation of Mitigation Measures CUL-1 and CUL-3 would ensure that impacts related to discovery of human remains are reduced to less than significant levels, and no additional mitigation is required.

VI. Geology and Soils	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the Project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The information in this section was derived from the *Geotechnical Engineering Report, Limonite Avenue Widening, Jurupa Valley, California*. Terracon. August 30, 2018.

Discussion

Would the Project:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

a1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other

substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazards of surface faulting to structures. Under the Alquist-Priolo Act, the California State Geologist identifies areas in the state that are at risk from surface fault rupture. The main purpose of the act is to prevent construction of buildings used for human occupancy where traces of active faults are evident on the Earth's surface. Impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the surface, unlike damage from ground shaking, which can occur at great distance from the fault. Such a rupture could potentially displace and/or deform the ground surface. The proposed Project site does not include any earthquake fault zones or active faults as mapped by the Earthquake Fault Zone, *Corona North* and *Riverside West* Quadrangle maps by the California Geological Survey, Department of Conservation (CDC 2013)(Terracon 2018). There are no Alquist-Priolo Zones within or adjacent to the Project study area, therefore, surface rupture is not expected to occur in the Project area and impacts would be less than significant. No mitigation is required.

a2. Strong seismic groundshaking?

Less Than Significant Impact. Southern California is a seismically active region and prone to earthquakes, which can result in hazardous conditions to people in the region. Earthquakes and ground motion can affect a widespread area. The potential severity of ground shaking depends on many factors, including the distance from the originating fault, the earthquake magnitude, and the nature of the earth materials beneath the site. The seismic hazard that is expected to have the highest probability of affecting the site is ground shaking resulting from an earthquake occurring along any of the several major active faults and potentially active faults in southern California. The closest known active fault zone to the Project site is the Lake Elsinore Fault (Chino Segment) approximately 9.5 miles southwest of the Project site (Terracon 2018). Impacts from seismic conditions are addressed through appropriate engineering design, which takes into account the seismic region in which the Project is located. The proposed Project would be constructed in conformance with City design standards, therefore, impacts would be less than significant. No mitigation is required.

a3. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact with Mitigation Incorporated. The potential for liquefaction depends on the levels of shaking, groundwater conditions, the relative density of the soils, and the age of the geologic units. Seismic-induced liquefaction occurs when a saturated, granular deposit of relatively low density is subjected to extreme shaking and loses strength or stiffness. The consequences of liquefaction are expected to be predominantly characterized by settlement, uplift on structures, and an increase in lateral pressure on buried structures. The proposed Project site is located in an area of High to Very High liquefaction potential (City 2017)(County 2018) Liquefaction would be addressed during engineering design for the Project and all earthwork would be performed in accordance with the requirements of applicable government agencies and the recommendations of the Project Geotechnical Engineering Report (Terracon 2018). With implementation of Mitigation Measure GEO-1, impacts associated with seismic related ground failure, including liquefaction, would be reduced to less than significant levels.

GEO-1 Prior to the start of road construction, the City Engineer shall confirm that Project plans conform to and have incorporated recommendations of the Project Geotechnical Engineering Report prepared by Terracon dated August 30, 2018 and/or subsequent authorized related report(s). The need for any additional geotechnical analysis or studies would be at the discretion of the City Engineer, and this measure shall be implemented to the satisfaction of the City Engineer.

a4. Landslides?

Less Than Significant Impact with Mitigation Incorporated. Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquake-induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. The proposed Project site is located in the seismically active southern California region subject to strong ground shaking; however, the Project site is located in a relatively flat developed area that does not contain large slopes, and development of the Project would not generate large slopes on the Project site. The City General Plan indicates a small “valley” in the western portion of the site (800 feet east of Bain Street) may be susceptible to “soil block slides” (Figure 8-6, Landslide Susceptibility, Safety Element)(City 2017). However, implementation of Mitigation Measure GEO-1 would reduce potential impacts of the proposed Project relative to exposing people or structures to substantial adverse effects involving landslides to less than significant levels (Terracon 2018).

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

Less Than Significant Impact with Mitigation Incorporated. Soils in the Project area consist of Gorgonio loamy sand, deep, 2 to 8 percent slopes; Grangeville fine sandy loam, drained, 0 to 2 percent slopes; Hilmar loamy sand, 0 to 2 percent slopes, eroded; Monserate sandy loam, 0 to 5 percent slopes; Monserate sandy loam, 8 to 15 percent slopes, eroded; Monserate sandy loam, 15 to 25 percent slopes, severely eroded; Ramona sandy loam, 0 to 5 percent slopes, severely eroded; Ramona sandy loam, 5 to 8 percent slopes, eroded; and Terrace escarpments (NRCS 2018). These soils are subject to erosion by wind and water when exposed. Construction of the proposed Project would include ground surface disruption that could result in soil erosion during rain or high winds. Soils and sediment would be graded, excavated, removed from the site, recompact, and filled, which could expose areas of soil to wind and water erosion. During a storm event, exposed soils could be transported off the site as runoff. This impact is considered potentially significant, however, federal and state jurisdictions require that an approved Stormwater Pollution Prevention Plan (SWPPP) be prepared for projects that involve greater than one acre of disturbance. A SWPPP specifies Best Management Practices (BMPs) that would prevent construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

The City would file a Notification of Intent with the State Water Resources Control Board 30 days prior to the start of construction for coverage under the statewide Discharge Elimination System NPDES permit for construction-related discharges. The contractor would prepare a SWPPP that sets forth the BMPs that would be implemented on site. Implementation of the SWPPP within the Project site would be monitored through site inspections by the Santa Ana RWQCB (Region 8). Upon completion of all work and the satisfactory stabilization of all disturbed soil area, a Notice of Completion of Construction must be sent to

the Santa Ana RWCQB. These actions are outlined in Mitigation Measure HYD-1 and Policies, Plans, and Programs 3.9-1 through 3.9-4 outlined in Section IX, *Hydrology and Water Quality*.

Compliance with existing state, regional, and local regulations, NPDES permit requirements, and project-specific BMPs identified in the SWPPP, coupled with installation of hydroseeding and ongoing maintenance and monitoring of construction and subsequent post-construction phase BMPs, would ensure that project impacts with respect to topsoil loss and erosion would be less than significant and no additional mitigation is required.

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

Less Than Significant Impact with Mitigation Incorporated. As indicated in Response a.4. above, the Project area has no potential for landslide risk except for the small “valley” in the western portion of the site (800 feet east of Bain Street) which may be susceptible to “soil block slides” (Figure 8-6, Landslide Susceptibility, Safety Element)(City 2017). In addition, Limonite Avenue within the Project study area has an elevated risk for liquefaction. Specifically, the western third of the Project site is designated as being “High” for liquefaction potential while the eastern two thirds of the Project site is designated as being “Very High” for liquefaction potential(Terracon 2018) The Subsidence Map from the Riverside County Land Information System, Limonite Avenue, as is most of the City of Jurupa Valley and surrounding areas, is designated as being “Susceptible” to subsidence. Liquefaction and subsidence would be addressed during engineering design for the Project and all earthwork would be performed in accordance with the requirements of applicable government agencies. With implementation of Mitigation Measure GEO-1, potential impacts associated with unstable geologic units or soil would be reduced to less than significant levels.

- d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

Less Than Significant Impact with Mitigation Incorporated. Expansive soils are fine-grained soils (generally high plasticity clays) that can undergo a significant increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content. Changes in the water content of an expansive soil can result in severe distress to structures constructed on the soil. As mentioned in the City General Plan, Safety Element, expansion testing and mitigation are required by current grading and building codes. The Project Geotechnical Engineering Report indicated onsite soils may be expansive and/or may be mildly corrosive to ferrous metals. Special engineering designs are used effectively to alleviate problems caused by expansive soils¹¹. These designs include the use of reinforcing steel in foundations, drainage control devices, over-excavation, and backfilling with non-expansive soils among others. Expansive soils can be alleviated through proper site investigations, soils testing, foundation design, and quality assurance during grading operations as required by the Building Code. With implementation of standard City design requirements and Mitigation Measure GEO-1, potential impacts related to expansion or other soil limitations would be reduced to less than significant levels.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?***

No Impact. The Project does not provide for any housing or any facilities that would require the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. Therefore, no impacts would occur and no mitigation is required.

VII. Greenhouse Gas Emissions	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

Less Than Significant Impact. Global climate change is caused by combined worldwide greenhouse gas (GHG) emissions and mitigating global climate change would require worldwide solutions. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which could have otherwise escaped to space. Prominent GHGs contributing to this process include water vapor, carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), ozone (O₃), and certain hydro- and fluorocarbons. This phenomenon, known as the "greenhouse effect," keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere further, thereby increasing evaporation rates and temperatures near the surface. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as O₃ precursors) and toxic air contaminants (TACs), which are pollutants of regional and local concern. According to SCAQMD's interim guidance document for addressing GHG emissions, CO₂ is the most important component of GHGs because it constitutes the majority of total GHG emissions and is very long-lasting in the atmosphere. For this reason, estimated CO₂ emissions are used as the benchmark for analysis. The proposed Project would contribute to air pollutant emissions during short-term construction and long-term operations.

Construction

The principal source of construction GHG emissions would be internal combustion engines of construction equipment, on-road construction vehicles, and workers' commuting vehicles. GHG emissions from construction activities for the proposed Project were obtained from the CalEEMod model described above. The SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2016b). The estimated construction GHG emissions for the Project

would be a total of 665 MTCO₂e and 22 MTCO₂e when amortized over a 30-year period, as shown in Table E.

Table E. Estimated Greenhouse Gas Emissions from Construction

Source	Emissions (MTCO ₂ e)
Total GHG Emissions from Construction Activities	665
30-Year Amortized Construction Emissions	22

MTCO₂e: metric tons of carbon dioxide equivalent

Notes:

Detailed calculations from CalEEMod in Appendix D.

Operation

Operational GHG emissions source would be primarily from vehicle trips. Estimated Project operational GHG emissions are shown in Table F. The emissions for the “With Project 2035” and “Without Project 2035” are shown, as well as the net operational emissions, assuming reduction of the “Without Project” emissions from the “With Project” emissions. As shown in Table F, the “With Project” scenario would emit less GHG emissions than the “without Project” scenario, and therefore, the net operational emissions would be -105 MTCO₂e/yr.

Table F. Estimated Annual GHG Emissions from Project Operation

Source	Emissions (MTCO ₂ e/yr.)
With Project (2035)	1,370
Without Project (2035)	1,476
Net Operational Emissions	-105

MTCO₂e/yr.: metric tons of carbon dioxide equivalent per year

Notes:

Totals may not add due to rounding variances.

Detailed CalEEMod calculations in Appendix D

Because impacts from construction activities occur over a relatively short period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. The SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that reduction measures address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). Therefore, construction and operational emissions are combined by amortizing the construction emissions over an assumed 30-year project lifetime and adding the annualized construction emissions to the annual operational emissions. This combination is shown in Table G using the Project emissions.

Table G. Estimated Total Project Annual GHG Emissions

Source	Emissions (MTCO ₂ e/yr)
Construction Amortized ¹	22
Net Operational Emissions	-105
Total ²	-83

MTCO₂e/yr.: metric tons of carbon dioxide equivalent per year

1 Total derived by dividing construction emissions (see Table E) by 30.

2 Total annual emissions are the sum of amortized construction emissions and operational emissions.

As shown in Table G, emissions would be “negative” for the “With Project” scenario. The City’s General Plan indicates the City relies on the Climate Action Plan (CAP) for the Western Riverside Council of Governments (WRCOG) until it can develop its own CAP, but the WRCOG CAP contains no thresholds related to road projects. However, the proposed Project would reduce net GHG emissions over emissions that would result if the Project was not built. Therefore, the proposed Project is consistent with the goals of the WRCOG CAP and would represent a less than significant, and no mitigation is required.

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

Less Than Significant Impact. The State of California Assembly Bill (AB) 32, identified a year 2020 target level for state-wide GHG emissions of 427 million metric tons (MMT) of CO₂e, which is approximately 28.5% less than the year 2020 business as usual (BAU) emissions estimate of 596 MMT CO₂e. To achieve these GHG reductions there would have to be widespread reductions of GHG emissions across California. Some of those reductions would need to come in the form of changes in vehicle emissions and mileage standards, changes in the sources of electricity, and increases in energy efficiency by existing facilities. The remainder would need to come from requiring new facility development to have lower carbon intensity than BAU conditions.

The City’s General Plan Policy AQ 9.1.3 (Climate Action Plan) states the City will...“Work with WRCOG to periodically monitor and update the Subregional Climate Action Plan.” The City General Plan EIR (GPEIR)(City 2017) indicates the City will rely on the implementation strategies of the Climate Action Plan (CAP) for the Western Riverside Council of Governments (WRCOG) until such time as the City develops its own independent CAP as required by GPEIR Mitigation Measure 4.7.5.2A. The WRCOG CAP does not contain any local implementation strategies directly applicable to the proposed Limonite Avenue widening, although the installation of a multi-use trail on the south side of the roadway may incrementally reduce some local vehicle trips in lieu of pedestrian or bicycle trips. Implementation of the Project would not conflict with any of the regional or local WRCOG CAP strategies, as outlined in Tables 4.7D and 4.7E from Section 4.7, *Greenhouse Gas Emissions*, of the General Plan EIR. The proposed Project would reduce long-term congestion along Limonite Avenue which incrementally helps reduce greenhouse gas emissions related to vehicular emissions. Once constructed, the roadway itself would not produce any long-term GHG emissions. In fact, the proposed Project would reduce net GHG emissions over emissions that would

result if the Project were not to be built. Therefore, the project conforms with the state's GHG reduction goals.

On December 12, 2008, California Air Resources Board (ARB) adopted the AB 32 Scoping Plan which detailed specific GHG emission reduction measures that target specific GHG emissions sources. The Scoping Plan was to be updated every five years and the First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The current Scoping Plan considers a range of actions including the following:

- Mobile-source GHG emissions reduction measures
 - Pavley emissions standards (19.8 percent reduction)
 - Low carbon fuel standard (7.2 percent reduction)
 - Vehicle efficiency measures (2.8 percent reduction)
- Energy production related GHG emissions reduction measures
 - Natural gas transmission distribution efficiency measures (7.4 percent reduction)
 - Natural gas extraction efficiency measures (1.6 percent reduction)
 - Renewables (electricity) portfolio standard (33.0 percent reduction)

The proposed Project would not affect any AB 32 Scoping Plan measures, nor be inconsistent in any way with the AB 32 goal of reducing state-wide GHG emissions to 1990 levels by year 2020. Actual direct GHG emissions for the proposed Project are limited to the construction phase which were determined to be less than significant. In addition, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, potential impacts would be less than significant, and no mitigation is necessary.

VIII. Hazards and Hazardous Materials	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The information in this section was derived from a records search of the Department of Toxic Substance Control, EnviroStor Data Management System in October of 2018 (DTSC 2018) and the *Hazardous Waste Initial Site Assessment (ISA)* for the Limonite Avenue HES Project (LSA 2002).

Discussion

Would the Project:

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

Less Than Significant Impact With Mitigation Incorporated. A hazardous material is defined as any material that, due to its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a business or the local implementing agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

The proposed Project would require construction activities and equipment that could potentially involve hazardous materials such as gasoline and oil. Hazardous substances used in construction would be properly stored and disposed of, as provided by existing regulations. Consequently, temporary and permanent impacts related to hazardous materials during construction would be less than significant.

According to Geotracker, which is the State Water Board's Internet-accessible database system used by the State Board, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks, two past incidents involving hazardous materials have been recorded in the Project area. The Geotracker database indicates two leaking underground storage tank (LUST) sites⁴ in the study area, one at the Jurupa Community Services District (JCSD) Maintenance Facility and one at the JCSD Regional Wastewater Pump Station Plant No. 1. Both facilities are located on the south side of Limonite (10124 Limonite Ave). The cleanup actions for both of these incidents were completed long ago and the cases closed (1994 and 1991, respectively)(Appendix E). During an onsite survey by Psomas staff in December of 2018, no evidence of spills, accidental releases, or illegal dumping of hazardous materials or wastes was observed within the Limonite Avenue roadway or from the public right-of-way within the Project study area.

Aerially deposited lead (ADL) contamination from vehicle emissions is a potential concern for projects adjacent to freeways, highways, and roads with very high traffic volumes. Lead was a constituent of gasoline until 1990 when the EPA banned its use, so older roadways sometimes have lead deposited in the soil along the roadways from vehicular tailpipe emissions over the years. ADL may be encountered during excavation in unpaved areas next to traffic lanes or shoulders on roadways and freeway ramps but is most typically found in higher concentrations along roadways with extremely high traffic volumes. ADL is typically a concern of Caltrans when it undertakes improvement projects along state freeways and major highways where federal funding is involved. In this case, there is no federal funding and it unlikely significant amounts of lead were deposited or remain in the soil along Limonite Avenue, including the

⁴ LUST #1 (JCSD Maintenance Facility)(T0606500476). Case closed 12/12/94
LUST #2 (JCSD Treatment Plant No. 1)(T0606500164). Case closed 3/27/91.

Project area, since this roadway has only been a two-lane rural/suburban roadway since the late 1800's and has only recently been widened.

Implementation of the proposed Project may require the removal and disposal of yellow traffic stripe and pavement marking materials - yellow paints applied prior to 1995 may exceed hazardous waste criteria under Title 22 of California Code of Regulations and requires disposal to a Class I disposal site (see HAZ-1 below).

The depth to groundwater in the Project area is anticipated to be relatively shallow, due to the proximity to the Santa Ana River (i.e., within 30 feet of ground surface in some locations)(see HAZ-2 below).

An electrical transformer was observed on at least one power pole within the Project limits (i.e., just east of Bain Street on the north side of Limonite Avenue). Polychlorinated biphenyls (PCBs) were used in electrical transformers manufactured between 1929 and 1977. Utility companies have replaced most PCB containing transformers over the past 20 years, and transformers are not considered an environmental concern unless they are leaking. The transformer was not observed to be leaking during an onsite survey by Psomas staff in December of 2018 (see HAZ-3 below).

The proposed Project involves widening and improvements to an existing roadway. During operation, some vehicles using the roadway may contain materials deemed hazardous; however, the Project is not anticipated to significantly increase the potential for vehicles carrying hazardous materials to travel in the Project area or increase the potential for accidents to occur in the Project area. In addition, since most of the existing and anticipated additional traffic would be passenger vehicles, the likelihood that increased spills would be associated with the proposed Project is minimal. Furthermore, the transportation and cleanup of hazardous materials is strictly regulated by the U.S. Environmental Protection Agency (EPA), the California and Federal Occupational Health and Safety Administrations, and other federal, state, and local agencies. The hazards associated with vehicular transport of hazardous waste are regulated under existing programs and would not be affected by the Project, therefore, operational impacts would be considered less than significant.

Based on available information, implementation of the following measures (HAZ-1 through HAZ-3) would reduce potential hazardous material impacts during construction to less than significant levels:

HAZ-1 Due to the possible presence of elevated lead concentrations within the yellow traffic markings along the roadway, the paint shall be sampled and tested for lead by trained and/or licensed professionals during construction. Representative samples of yellow striping paint shall be collected. The field and analytical data obtained during this study shall be used to provide a review of the sampling locations/descriptions, summary of the analytical results, and recommendations for striping paint removal, containment, and off-site transportation and disposal per applicable regulations if necessary. A copy of the findings shall be provided to the City Engineer.

HAZ-2 Prior to construction, the contractor shall determine if or where dewatering of groundwater would be necessary for the Project, based on the results of the Project Geotechnical Engineering Report, prepared by Terracon, August 30, 2018, which indicates relatively shallow groundwater in the Project area. Any dewatering activities would require compliance with an

individual permit from the Santa Ana Regional Water Quality Control Board, consistent with National Pollution Discharge Elimination System (NPDES) requirements. The Santa Ana Regional Water Quality Control Board would decide which permit is applicable, and if sampling is required, once it receives and reviews the Notice of Intent. This measure shall be implemented to the satisfaction of the City Engineer.

HAZ-3 If any pole-mounted electrical transformers must be disturbed during Project construction, the appropriate utility company shall be contacted to remove or relocate electric transformers as necessary. Any leaking transformers observed during Project construction shall be considered a potential polychlorinated biphenyls (PCB) hazard unless tested and shall be handled accordingly. This measure shall be implemented to the satisfaction of the City Engineer.

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

Less Than Significant Impact With Mitigation Incorporated. As discussed in Response VIII.a., Project construction activities would involve a limited use of hazardous materials. Equipment used in construction of the proposed Project has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. However, the consequences of construction-related spills are not substantial because the volume of hazardous materials held within any single piece of construction equipment is limited. Construction-related spills of hazardous materials are not uncommon, but the enforcement of construction and demolition standards, including BMPs by appropriate local and state agencies, would minimize the potential for an accidental release of petroleum products and/or hazardous materials or explosions during construction. Federal, state, and local regulations would be followed by the construction contractor to reduce the effects of potential hazardous materials spills. Furthermore, measures HAZ-1 through HAZ-3 would be implemented to minimize potential risks from hazardous materials during the construction period. Impacts would be mitigated to a less than significant level.

c. 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 proposed Project is not located within 0.25 mile of an existing school site. The nearest school relative to the proposed Project site is Pedley Elementary School located at the southwest corner of 58th Street and Feldspar Street approximately 0.64-mile northeast of the east end of the Project site. No impacts would occur and no mitigation is required.

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

Less Than Significant Impact. There are no hazardous materials sites in or near the Project study area that are on the official "Cortese List"⁵ maintained by the State Department of Toxic Substances Control (DTSC) pursuant to Government Code Section 65962.5 (Appendix E)(DTSC 2018). The closest Cortese site to the

⁵ Cortese List from DTSC Website

Project area is the Stringfellow Acid Pits, a federal Superfund cleanup site, 3.4 miles northeast of the Project site at the head of Pyrite Creek (which does flow through the eastern portion of the Project site).

The DTSC's EnviroStor Data Management System records search indicates there are no major hazardous spill incidents recorded in the Project area (DTSC 2018). The EnviroStor Data Management System provides information about environmental cleanups and permitted facilities with regard to hazardous waste and materials. The EnviroStor Data Management System indicated a school investigation had been opened at the Pedley Elementary School located approximately 0.64-mile northeast of the east end of the Project study area, but there is no contamination identified with this site and the Envirostor website indicates no action is required at this location (Appendix E).

In addition, as indicated in Response VIII.a., the Geotracker database identified two LUST sites⁶ in the study area (Geotracker 2018), one at the JCSD Maintenance Facility and one at the JCSD Regional Wastewater Pump Station Plant No. 1, both facilities are located on the south side of Limonite (10124 Limonite Ave). The cleanup actions for both of these incidents were completed long ago and the cases closed (1994 and 1991, respectively) (Appendix E).

The proposed Project involves widening and improvements to an existing roadway which would not affect or be affected by past LUST incident areas. Impacts are anticipated to be less than significant, and no mitigation is required.

- e. For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?***

No Impact. The proposed Project is not within an airport land use plan or located within two miles of a public airport or public use airport and would not result in a safety hazard for people residing or working in the Project area as the Project would involve improvements to an existing roadway. The Project is a road widening and would not include the construction of any habitable structures or air traffic hazards. Therefore, there would be no impacts and no mitigation is required.

- f. For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?***

No Impact. The proposed Project site is not located within the vicinity of a private airstrip and it would not include the construction of any habitable structures. No impacts would occur, and no mitigation is required.

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

No Impact. Emergency response and evacuation is the responsibility of the Riverside County Fire Department and Riverside County Sheriff's Department. There are no designated emergency evacuation routes or location-specific goals or policies addressing emergencies that apply to the Project site. Specific internal circulation descriptions, project related traffic increase, and potential effects to emergency

⁶ LUST #1 (JCSD Maintenance Facility)((T0606500476). Case closed 12/12/94.
LUST #2 (JCSD Treatment Plant No. 1)(T0606500164). Case closed 3/27/91.

response related traffic conditions are discussed in Section XVI, "Traffic and Circulation." As described, the Project is not expected to generate traffic and would therefore not result in traffic impacts. Project-related traffic would not impair implementation or interfere with an adopted emergency response plan or emergency evacuation plan. The Project would improve emergency access in this area by widening Limonite Avenue from 2 to 4 lanes and connecting it to wider (4 lane) segments of the roadway to the west and east. Therefore, the Project would not impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan. Therefore, there would be no impacts and no mitigation is required.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. According to the City General Plan, Community Safety, Services, and Facilities Element, the foothill and mountainside areas of the City are subject to fire hazards. The lush riparian vegetation of the Santa Ana River also poses conditions conducive to wildfires. The highest danger of wildfires can be found in the most rugged terrain where development intensity is relatively low. The proposed Project is not located within an identified wildland fire hazard area nor located within a high fire area (City General Plan and Riverside County Land Information System, High Fire and Responsibility Areas Map). The proposed Project would not place any habitable structure or vulnerable facilities within the Study area. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death from wildfires. No Impacts would occur and no mitigation is required.

		Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
IX. Hydrology and Water Quality					
Would the Project:					
a.	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j.	Contribute to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project:

a. Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact With Mitigation Incorporated. The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). The water quality information for the Santa Ana River, located to the south of the proposed Project, is included in the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan and the Integrated Regional Water Management Plan prepared by the Santa Ana Watershed Project Authority. The potential impacts of construction activities on water quality focus primarily on sediments, turbidity, and pollutants associated with sediments. Construction-related activities that expose and move soils are primarily responsible for sediment releases. The Project includes removal of existing vegetation, site grading, soil preparation, and site trenching. These project activities could result in wind and rain erosion of the existing onsite soils and could increase the amount of suspended solids contained in storm flows due to erosion of exposed soils. Non-sediment potential contaminants that could enter water runoff from the construction site include paints, solvents, metals, oil, gasoline, petroleum products, concrete-related products, chemicals, and trash. All of these contaminants could contribute to the degradation of water quality.

Under the statewide National Pollution Discharge Elimination System (NPDES) permit for construction-related discharges, the Project would require a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to prevent construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters. Under the NPDES, the City would file a Notification of Intent with the State Water Resources Control Board 30 days prior to the start of construction for coverage under the statewide NPDES permit. The City or its contractor would prepare a SWPPP that sets forth the BMPs that would be implemented on site. Implementation of the SWPPP within the Project site would be monitored through site inspections by the Santa Ana RWQCB (Region 8). Upon completion of all work and the satisfactory stabilization of all disturbed soil area, a Notice of Completion of Construction must be sent to the Santa Ana RWCQB.

To prevent potentially significant water quality impacts during construction, the City would implement the following standard mitigation measure as a local jurisdiction within the Santa Ana Region of the Regional Water Quality Control Board.

HYD-1 At least 30 days prior to the start of construction, the City would file a Notification of Intent (NOI) with the State Water Resources Control Board for coverage under the state-wide NPDES permit for construction-related discharges. The Project contractor would also prepare a Storm Water Pollution Prevention Plan (SWPPP) that sets forth the Best Management Practices (BMPs) that would be implemented on site during Project construction. Implementation of the SWPPP within the Project site is monitored through site inspections by the Santa Ana RWQCB. Upon completion of all work and the satisfactory stabilization of all disturbed soil area, a Notice of Completion of Construction shall be sent to the Santa Ana RWCQB.

In addition to HYD-1, the City's following standard Plans, Policies, or Programs (PPPs) generally apply to the Project and would be implemented as appropriate to reduce impacts relating water quality and waste discharge requirements. These PPPs would be included in the Project's Mitigation Monitoring and Reporting Program to ensure compliance:

PPP 3.9-1 As required by Municipal Code Chapter 6.05.050, *Storm Water/Urban Runoff Management and Discharge Controls, Section B (1)*, any person performing construction work in the city shall comply with the provisions of this chapter and shall control storm water runoff so as to prevent any likelihood of adversely affecting human health or the environment. The City Engineer shall identify the BMPs that may be implemented to prevent such deterioration and shall identify the manner of implementation. Documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4 shall be required when requested by the City Engineer.

PPP 3.9-2 As required by Municipal Code Chapter 6.05.050, *Storm Water/Urban Runoff Management and Discharge Controls, Section B (2)*, any person performing construction work in the city shall be regulated by the State Water Resources Control Board in a manner pursuant to and consistent with applicable requirements contained in the General Permit No. CAS000002, State Water Resources Control Board Order Number 2009-0009-DWQ. The city may notify the State Board of any person performing construction work that has a non-compliant construction site per the General Permit.

PPP 3.9-3 As required by Municipal Code Chapter 6.05.050, *Storm Water/Urban Runoff Management and Discharge Controls, Section C*, new development or redevelopment projects shall control storm water runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. The City Engineer shall identify the BMPs that may be implemented to prevent such deterioration and shall identify the manner of implementation. Documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4 shall be required when requested by the City Engineer. The BMPs may include, but are not limited to, the following and may, among other things, require new developments or redevelopments to do any of the following:

(1) Increase permeable areas by leaving highly porous soil and low-lying area undisturbed by:

- (a) Incorporating landscaping, green roofs and open space into the project design;
- (b) Using porous materials for or near driveways, drive aisles, parking stalls and low volume roads and walkways; and
- (c) Incorporating detention ponds and infiltration pits into the project design.

(2) Direct runoff to permeable areas by orienting it away from impermeable areas to swales, berms, green strip filters, gravel beds, rain gardens, pervious pavement or other approved green infrastructure and French drains by:

- (a) Installing rain-gutters oriented towards permeable areas;
 - (b) Modifying the grade of the property to divert flow to permeable areas and minimize the amount of storm water runoff leaving the property; and
 - (c) Designing curbs, berms or other structures such that they do not isolate permeable or landscaped areas.
- (3) Maximize storm water storage for reuse by using retention structures, subsurface areas, cisterns, or other structures to store storm water runoff for reuse or slow release.
- (4) Rain gardens may be proposed in-lieu of a water quality basin when applicable and approved by the City Engineer.

PPP 3.9-4

As required by Municipal Code Chapter 6.05.050, *Storm Water/Urban Runoff Management and Discharge Controls, Section E*, any person or entity that owns or operates a commercial and/or industrial facility(s) shall comply with the provisions of this chapter. All such facilities shall be subject to a regular program of inspection as required by this chapter, any NPDES permit issued by the State Water Resource Control Board, Santa Ana Regional Water Quality Control Board, Porter-Cologne Water Quality Control Act (Wat. Code Section 13000 et seq.), Title 33 U.S.C. Section 1251 et seq. (Clean Water Act), any applicable state or federal regulations promulgated thereto, and any related administrative orders or permits issued in connection therewith.

The SWPPP is required to meet or exceed measures required by the Construction General Permit. As a result, construction of the proposed Project would result in less than significant impacts related to water quality standards with implementation of Mitigation Measure HYD-1 and PPP 3.9-1 through PPP 3.9-4.

Following construction, the amount of impervious surface would increase by approximately 2.1 acres with the additional paved areas along this portion of Limonite Avenue. Although the rate and quantity of runoff would result in a slight change in the amount of impervious surface area, the Project would have a low potential to impact surface water quality because the increase in runoff would not be considered substantial and the Project would be required to incorporate post-construction Best Management Practices (BMPs). Therefore, the proposed Project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality, and long-term impacts, if they occur, would be less than significant and no mitigation is required.

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?***

Less Than Significant Impact. Following construction, the amount of impervious surface would increase slightly as the proposed Project would widen Limonite Avenue between Bain Street and Homestead Street. The addition of paved roadway is not expected to substantially decrease groundwater recharge in the area due to the limited amount of new impervious area that would be constructed. The proposed

Project would not involve the direct withdrawal of groundwater. The proposed Project would involve improvements to an existing roadway and would not result in the substantial depletion of groundwater supplies or substantially interfere with groundwater recharge such that there would be net deficit in aquifer volume or lowering of the groundwater table. Impacts related to lowering the groundwater table and groundwater recharge would be less than significant and no mitigation is required.

- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?***

Less Than Significant With Mitigation. As mentioned previously, the Project site is adjacent to the Santa Ana River. The Project would not alter the drainage pattern of the site or area through the alteration of the course of a stream or river and does not have the potential to result in the erosion or siltation of any stream or river. As discussed above under Response IX.a., a NPDES General Construction permit and a SWPPP would be required to address sediment control and flooding during construction activities. Storm drain improvements would be designed in consultation with the appropriate agencies. With implementation of Mitigation Measure HYD-1 and Policies, Plans and Programs (PPP) 3.9-1 through PPP 3.9-4, potential impacts related to drainage patterns and siltation or erosion would be reduced to less than significant levels and no additional mitigation is required.

- d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?***

Less Than Significant Impact. Construction of the proposed Project would occur primarily on an existing roadway and alterations to the drainage pattern of the site or to the Santa Ana River would not occur. The Project would construct onsite stormwater infrastructure to connect to the existing adjacent facilities and would not alter the existing drainage pattern or increase runoff in a manner that would result in flooding. The improvement plans show improvements to Pyrite Creek under Limonite Avenue (i.e., two box culverts) but these would only provide more capacity and improved flood protection and would not change the direction of flows. Therefore, impacts would be less than significant and no mitigation is required.

- e. *Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Less Than Significant Impact With Mitigation. The proposed Project would develop onsite drainage to direct stormwater to existing storm drains within the surrounding streets. Therefore, the Project would result in less than significant impacts related to the capacity of existing and planned stormwater drainage systems. In addition, a NPDES General Construction permit and a SWPPP would be required to address sediment control during construction activities. With implementation of Mitigation Measure HYD-1 and Policies, Plans and Programs (PPP) 3.9-1 through PPP 3.9-4, potential impacts related to polluted runoff and flood protection would be reduced to less than significant levels and no additional mitigation is required.

f. Otherwise substantially degrade water quality?

Less Than Significant Impact With Mitigation Incorporated. As described in Responses IX.a. through IX.e., the proposed Project would result in less than significant short-term construction and long-term operational impacts to water quality. Construction impacts would be reduced through the implementation of BMPs identified in the SWPPP. With implementation of Mitigation Measure HYD-1 and Policies, Plans and Programs (PPP) 3.9-1 through PPP 3.9-4, potential impacts related to water quality would be reduced to less than significant levels and no additional mitigation is required.

g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed Project is a roadway widening and does not involve the construction of any housing. The Pyrite Creek and immediately adjacent land is located within a FEMA-designated 1-percent annual chance (100-year) flood zone (FEMA 2008). The 100-year flood zone of the Santa Ana River would not affect the Project site, and the 500-year flood zone of the river would be immediately south of the Project area. However, the Project involves improvements to an existing roadway and would not place housing within a 100-year flood hazard area, therefore, no impact would occur and no mitigation is required.

h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Less Than Significant Impact. The Pyrite Creek and immediately adjacent land is located within a FEMA-designated 1-percent annual chance (100-year) flood zone (FEMA 2008). The 100-year flood zone of the Santa Ana River would not affect the Project site, and the 500-year flood zone of the river would be immediately south of the Project area. However, the proposed Project would not place structures within a flood zone that would impede or redirect flood flows. The proposed Project would result in improvements to an existing roadway and would be designed in a manner that would not impede flood zones. The Project proposes two new 12-foot by 12-foot box culverts under Limonite Avenue for the Pyrite Creek channel which would provide substantially improved flood protection and reduce potential flood risks for residents, structures, and properties along Pyrite Creek immediately upstream and downstream of the culverts by removing the existing two undersized and aging 60-inch corrugated metal pipes that currently allow the creek to flow under Limonite Avenue. Therefore, flood-related impacts are anticipated to be less than significant and no mitigation is required.

i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. Although there are no levees or dams in the Project area, Pyrite Creek is a FEMA-designated 1-percent annual (100-year) flood zone (FEMA 2008) that crosses the eastern portion of the Project site and empties into the Santa Ana River approximately 1,200 feet south of Limonite Avenue. The City General Plan states... "Portions of Jurupa Valley may be subjected to hazards such as ... dam inundation..." (page 8-2, Community Safety, Services, and Facilities Element). However, the General Plan provides no additional information on areas of the City that could be subject to dam inundation. This statement may be in reference to the Seven Oaks Dam on the Santa Ana River in the foothills of the San Bernardino Mountains 24 miles northeast of the City. If that facility were to fail, it is possible that some

portions of the City, especially those along the Santa Ana River, could be temporarily inundated by flood flows depending on how full the dam was at the time of failure. However, the Project does not propose any occupied structures which would increase the risk of dam failure to persons within the City. Therefore, implementation of the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam. Impacts would be less than significant and no mitigation is required.

j. Contribute to inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. The proposed Project site is located a considerable distance away from the Pacific Ocean and is considered too far away and at too high an elevation to be subject to a tsunami. In addition, the Project area does not contain any sizeable slopes or areas that could be inundated by mudflows from adjacent upland areas. Therefore, the Project would not result in impacts related to potential tsunami or mudflow inundation.

The City's General Plan defines a seiche as a wave that reverberates on the surface of water in an enclosed or semi-enclosed basin, such as a reservoir, lake, bay or harbor, in response to ground shaking during an earthquake (Community, Safety, Services, and Facilities Element)(City 2017). The Jurupa Community Services District (JCSD) operates a wastewater treatment pumping facility near Bain Street and Limonite Avenue that contains a shallow lined pond that could be subject to minor seiching during a major earthquake. However, this facility is down gradient (i.e., at a lower elevation) than the Project roadway so a seiche at the JCSD facility would not likely impact the proposed Project to a significant degree. Therefore, the proposed Project would have less than significant impacts related to seiche, tsunami, or mudflows and no mitigation is required.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
X. Land Use and Planning				
Would the Project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project:

a. *Physically divide an established community?*

Less Than Significant Impact. The land uses surrounding the project area consist of rural residential lots, industrial or institutional uses, the Santa Ana River, and some vacant and open space parcels. Limonite Avenue is an existing road through the central and western portions of the City. Access to driveways along Limonite Avenue would remain accessible after implementation of the proposed Project and no physical division would be created by the proposed roadway widening improvements. Implementation of the proposed Project would not diminish access to or the ability to use properties and facilities adjacent to the roadway, or to rural residential lots or vacant land, therefore the Project would not physically divide an established community. The impact would be less than significant and no mitigation is required.

b. *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The City General Plan Mobility Element designates Limonite Avenue as an Urban Arterial which is defined as a highway primarily used for through traffic where anticipated traffic volumes exceed four-lane capacity. Access from other streets or highways occurs at approximately 0.25-mile intervals. Urban Arterials are identified as having six or eight lanes with an overall ultimate right-of-way width of 152 feet. In addition, the City General Plan designates the land along the south side of Limonite Avenue between the JCSD plant and the Paradise Knolls Golf Course/JATC facility as the “Limonite Policy Area”. During the City’s approval process for the General Plan, this area was referred to as Land Use Area 19 (LUA-19) and was evaluated to ensure adjacent land uses would be compatible with each other in the future. Land uses along this portion of Limonite Avenue include a mixture of residential housing and institutional uses. The General Plan land use designations along this portion of Limonite Avenue include large areas of Low Density Residential (LDR) and Very Low Density Residential (VLDR), a smaller areas of Highest Density Residential (HHDR) and Medium High Density Residential (MHDR) both associated with the development

plan for the Paradise Knolls Golf Course, and Open Space uses (OS-W and OS-CH) for lands associated with the Santa Ana River and the San Sevaine Channel (see previous Figure 4). However, widening Limonite Avenue would not significantly impact the existing or future land uses of this policy area due to the nature of the Project (i.e., a roadway).

The proposed Project would widen the existing roadway between Bain Street and Homestead Street from two to four lanes but would not preclude other future improvements that would be consistent with an Urban Arterial roadway. Therefore, the Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur and no mitigation is required.

c. *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

Less Than Significant With Mitigation Incorporated. The entire project site lies within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Within the MSHCP boundaries, the Project site is located within the Jurupa Area Plan and is adjacent to Public/Quasi-Public (PQP) lands. The proposed Project is a covered activity under the MSHCP, with Limonite Avenue classified as an urban arterial with an ultimate 152-foot right of way. The Project also occurs within the MSHCP Narrow Endemic Plant Species Survey Area 7, and the Burrowing Owl Survey Area. The proposed Project does not occur within any other survey areas of the MSHCP and does not occur within a Criteria Cell. Consistency with the MSHCP measures and requirements fully addresses impacts to covered species. Implementation of measures BIO-1 through BIO-11 would be required to ensure compliance with the MSHCP and the County's Habitat Conservation Plan (HCP) for Stephens' Kangaroo Rat (SKR) which was formed prior to establishment of the MSHCP but only requires payment of a mitigation fee for the proposed Project. Please refer to Section IV, Biological Resources for additional details regarding the MSHCP and SKR HCP. With implementation of BIO-1 through BIO-11, impacts to the MSHCP would be mitigated to less than significant levels.

XI. Mineral Resources	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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?

No Impact. The entire project site and surrounding areas are within a “[Mineral Resource Zone] MRZ 3a” zone which is defined as...*areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined* (CDC 2018). This zone has been designated due to the amount of sand and gravel potentially available from the Santa Ana River environs for use as construction aggregate. However, mineral resources are not expected to be located within the anticipated direct impact area associated with the proposed Project due to the developed nature of the Project site and immediate surrounding areas. Therefore, no impacts on mineral resources are anticipated.

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

No Impact. There are no mineral resource recovery sites identified on or immediately adjacent to the Project study area, therefore, no impacts on mineral resources are anticipated.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XII. Noise				
Would the Project:				
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be located in the vicinity of a private airstrip and expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Noise Impact Assessment, Limonite Avenue Widening Project, Bain Street to Homestead Street Segment. Psomas, October 2018.

Discussion

Background

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed Project. Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water, and noise is generally defined as unwanted sound that annoys or disturbs people. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels". Table H provides

definitions of sound measurements and other terminology used in this chapter, and Table I summarizes typical A-weighted sound levels for different noise sources. In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of the sound level depending on whether it is increasing or decreasing over existing levels.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10} , L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment. Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Table H. Definition of Sound Measurements

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Equivalent Sound Level (L_{eq})	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (L_{xx})	The sound level exceeded “x” percent of a specific time period. L_{10} is the sound level exceeded 10 percent of the time.
Day-Night Level (L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/sec.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Table I. Typical A-Weighted Sound Level

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: Caltrans 2013b

Vibration

Operation of heavy construction equipment, particularly pile driving and other impacts devices such as pavement breakers create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance would result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes would decrease with increasing distance.

Perceptible ground-borne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude,

referred to as the peak particle velocity (PPV). Table J illustrates typical vibration levels associated with common construction equipment.

Table J. Typical Vibration Levels Generated By Construction Equipment

Equipment	PPV at 25 feet
Pile driver (impact)	0.644 to 1.518
Pile drive (sonic/vibratory)	0.170 to 0.734
Vibratory roller	0.210
Hoe ram	0.089
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: FTA 2006

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. Tables K and L summarize guidelines developed by Caltrans for damage and annoyance potential from transient and continuous vibration that is usually associated with construction activity. Equipment or activities typical of continuous vibration include: excavation equipment, static compaction equipment, tracked vehicles, traffic on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. Equipment or activities typical of single-impact (transient) or low-rate repeated impact vibration include: impact piledrivers, blasting, etc.

Table K. Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table L. Guideline Vibration Annoyance Potential Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Note: Transient sources create a single isolate vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Existing Conditions at Project Site

Land uses surrounding the Project alignment consist mainly of rural residential lots and some vacant lots along the north and south sides of the alignment. There are some small institutional or commercial uses located along the northern side of the alignment as well. Land uses along the southern side of the alignment are mainly institutional, commercial, and undeveloped/open land. The predominate noise source in the Project area is traffic along Limonite Avenue. A number of short-term and long-term noise measurements were taken in the City as part of the 2017 General Plan for the Noise Element, including measurements on or near Limonite Avenue (City 2017). Short-term monitoring location ST-15 was located on the north side of Limonite Avenue just east of Beach Street which is within the eastern portion of the Project study area. Changes in traffic noise levels resulting from the Project were predicted by the use of FHWA's Traffic Noise Model which is FHWA's computer program for highway traffic noise prediction and analysis.

Regulatory Background, Noise Standards, and Thresholds of Significance

The Project alignment is located within the City of Jurupa Valley which has established maximum acceptable noise levels for land uses within the City for the purposes of land use compatibility planning and code enforcement. The City's land use compatibility standard for exterior noise for residential uses is 65 CNEL which is the most restrictive of the land use categories for uses along this portion of Limonite Avenue (e.g., institutional, commercial, etc.). However, the EIR for the 2017 General Plan concluded that noise levels along certain major roadways in the City, including Limonite Avenue, would exceed generally accepted land use noise standards now and in the future (City 2017). Land development projects along this portion of Limonite Avenue, especially in Land Use Policy Area 19 (i.e. south side of Limonite between the JCSD and JATC facilities) would be required to mitigate site specific noise impacts from anticipated roadway volumes prior to development.

Goal NE 2 of the Noise Element directs the City to "minimize excessive noise levels and community health risks due to mobile noise sources" which applies to the proposed Project on Limonite Avenue. In addition, Policy NE 2.1.1 requires roadway projects to consider "noise mitigation measures in the design and construction of new roadway projects in the City. Noise mitigation may include speed reduction, roadway design, noise-reducing materials or surfaces, edge treatments and parkways with berms and landscaping, and other measures." It should be noted that the General Plan EIR determined sensitive land uses adjacent to Limonite Avenue are now and would be exposed to significant noise impacts in the future due to high

volumes of traffic which cannot be mitigated due to physical constraints along the roadway (City 2017). The following analysis applies specifically to the portion of Limonite Avenue within the proposed Project area.

Regulatory Background, Vibration Standards, and Thresholds of Significance

There are no applicable City standards for vibration-induced annoyance or structural damage from vibration. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table M.

Table M. Vibration Damage Threshold Criteria

Building Class	Continuous Source PPV (in/sec)	Single-Event Source PPV (in/sec)
Class I: buildings in steel or reinforced concrete, such as factories, retaining walls, bridges, steel towers, open channels, underground chambers and tunnels with and without concrete alignment	0.5	1.2
Class II: buildings with foundation walls and floors in concrete, walls in concrete or masonry, stone masonry retaining walls, underground chambers and tunnels with masonry alignments, conduits in loose material	0.3	0.7
Class III: buildings as mentioned above but with wooden ceilings and walls in masonry	0.2	0.5
Class IV: construction very sensitive to vibrations; objects of historic interest	0.12	0.3

Note: Class III buildings are considered to be representative of the wood framed residential structures. The threshold of 0.2 PPV is consistent with potential vibration damage threshold for houses with plastered walls and ceilings as per Tables 10, 12, and 15 of *Transportation and Construction Vibration Guidance Manual*.

Source: Caltrans 2013a.

The structural damage threshold for Class III buildings of 0.2 ppv in/sec is selected for analysis for residential structures. This threshold represents the vibration limits for structural damage to adjacent uses to the Project site. The Caltrans vibration annoyance potential guideline thresholds are shown in Table N. Based on the guidance in Table K, the “strongly perceptible” vibration level of 0.9 ppv in/sec is considered a threshold for a potentially significant vibration impact for human annoyance. This standard has been used in past CEQA documentation adopted by the City.

Table N. Vibration Annoyance Criteria

Average Human Response	ppv (in/sec)
Severe	2.0
Strongly perceptible	0.9
Distinctly perceptible	0.24
Barely perceptible	0.035

ppv: peak particle velocity; in/sec: inch(es) per second

Source: Caltrans 2013a

Would the Project:

- a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant Impact With Mitigation Incorporated. Impacts related to construction and operation of the proposed Project are discussed separately below.

Construction

As indicated in Chapter 2, Project Description, construction activities related to development of the Project would occur over an approximate nine month period. Construction activities would cause short-term elevated noise levels at the surrounding residences through the use of construction equipment such as paving equipment, bulldozers, backhoes, and heavy trucks. Table O below reflects noise levels for construction equipment that would be representative of equipment utilized for this proposed Project.

Table O. Construction Noise Levels at Noise Sensitive Uses

Equipment	Noise Level Based on Distance from Activity (L_{eq} dBA)			
	50 feet	100 feet	500 feet	1,000 feet
Ground Clearing/Demolition	84	78	64	58
Excavation	88	82	68	62
Roadway Base Construction	88	82	68	62
Paving and Site Cleanup	84	78	64	58

Source: Federal Transit Agency (FTA), Transit Noise and Vibration Impact Assessment (2006) and EPA.

Based on the types of construction activities and equipment required for the proposed Project, noise levels at 50 feet from the center of construction activities would generally range from 84 to 88 dBA during peak periods. The construction of the roadway widening would occur along the 0.74 mile Project length. Construction equipment would operate in a linear fashion along the project site which would result increasing noise levels as equipment approach and diminishing noise levels as equipment operate further from an individual receptor location. In addition, because not all equipment would be operating at the same time or for the entire day, the noise level from project construction would be substantially lower. In addition, any increase in the background noise level due to project construction would be temporary.

Significant noise impacts would be avoided by the limiting noise-generating construction activity to within the hours permitted by City's Municipal Code (i.e., not permitted between 10:00 PM to 7:00 AM on weekdays or between 5:00 PM and 8:00 AM on Saturday or anytime on Sunday or federal holidays). Construction activities are also considered short-term and is anticipated to occur over a nine-month period. In addition, measure NOI-1 is proposed to reduce temporary construction-related noise impacts to less than significant levels.

NOI-1 Construction noise would be temporary and limited to the duration of the planned roadway construction activities. The following noise control measures would also be incorporated into the Project contract specifications to minimize construction noise effects:

- All noise-producing project equipment and vehicles using internal combustion engines would be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) would be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise-producing equipment used on the Project that is regulated for noise output by a local, state, or federal agency would comply with such regulations during project construction activity.
- Electrically powered equipment would be used instead of pneumatic or internal combustion powered equipment where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas would be located as far as practicable from noise-sensitive receptors (i.e., residences on the north side of Limonite Avenue near the eastern and western boundaries of the Project area).
- Construction site access road speed limits would be established and enforced during the construction period.
- The hours of construction, including maintenance activities and soil or material transport, would be restricted to the periods and days permitted by the City noise ordinance. Noise-producing project activity would comply with local noise control regulations affecting construction activity or obtain exemptions there from.
- The onsite construction supervisor would have the responsibility and authority to receive and resolve noise complaints. Prior to the start of construction, the City shall develop and advertise a clear appeal process for property owners and occupants that would allow for the timely resolution of noise problems that cannot be immediately solved by the site supervisor.

Operation

General Plan Noise Element Impacts. Figure 7-5 in the Noise Element of the General Plan shows the 60 CNEL contour approximately 800 feet from the centerline of Limonite Avenue (both north and south of the roadway) which encompasses the residential uses in the northeastern and northwestern portions of the Project area. Figure 7-6 of the Noise Element indicates the 60 dBA CNEL contour would expand to approximately 1,100 feet from the centerline of Limonite Avenue at buildout (year 2035) conditions analyzed as part of the General Plan. These conditions assumed widening Limonite Avenue to 6 lanes sometime before buildout. Under these conditions the 70 dBA CNEL contour would expand to approximately 250 feet from the centerline of Limonite Avenue both north and south of the roadway.

Changes in City-wide traffic noise were evaluated in the General Plan Noise Assessment⁷ which was based on increases in traffic volumes over time but did not account for any changes in the location of travel lanes such as in the proposed Project. As such, that analysis is applicable for those locations where there are no noise sensitive uses proximate to proposed lanes that would be located closer to existing structures. Table P shows that ambient noise levels already exceed City standards, as discussed in the 2017 General Plan EIR. The EIR also concluded that future noise impacts along major roadways like Limonite Avenue would continue to be significant and that mitigation along the entire roadway was considered infeasible due to physical limitations. It should be noted that the “worst case” General Plan assumption was the eventual expansion of Limonite Avenue to 6 lanes whereas the current Project is expansion to 4 lanes, therefore noise impacts of the Project would be less than those shown in Table P.

Table P. Estimated Long-Term Noise Level Changes along Limonite Avenue (General Plan EIR Analysis)

Timeframe	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL 50 feet from centerline of outermost lane
Existing (2015)	20,418	176	379	817	77.5
Buildout (2035)	28,737 (+40.7%)	245	527	1,135	78.6 (+1.1)

Source: Tables 4.12.D and 4.12.G, 2017 General Plan EIR, Section 4.12, *Noise*. Limonite Avenue between Bain St. and Collins Street.

Note: The Buildout 2035 ADTs of 33,503 were based on volumes calculated for a proposed 6-lane configuration for Limonite Avenue. The General Plan proposes a 4-lane configuration which has a projected 28,737 ADT. Use of the 33,503 ADT represents a worst-case traffic volume relative to noise level increases.

Proposed Project Impacts. Noise associated with the proposed roadway widening was evaluated using a site-specific traffic noise model, the Federal Highway Administration’s Traffic Noise Model (TNM). The centerlines of each travel lane were used as inputs to the TNM for both existing conditions with 2 lanes and under the Project’s proposed 4 lanes. The proposed Project would move the westbound lanes approximately 35 feet closer to an existing residential structure that is approximately 1,500 feet east of the intersection of Limonite Avenue and Bain Street (on APN 162-200-010). This is considered the “worst case” operational noise impact location - other locations along the proposed roadway widening would experience less traffic noise increases. Traffic volumes were obtained from the City of Jurupa Valley General Plan Traffic Study (LSA 2016). According to the TNM, the Project would result in potential

⁷ City of Jurupa Valley California Draft General Plan Update Noise and Vibration Study. LSA 2017.

increases in noise exposure due to increases in traffic volumes along Limonite Avenue as well as bringing westbound traffic lanes closer to existing residential uses (APN 162-200-010), as shown in Table Q. This impact is addressed by Mitigation Measure NOI-2 below.

Table Q. Estimated Long-Term Noise Level Changes along Limonite Avenue (TNM Analysis)

Timeframe	ADT	CNEL Property Line with General Plan Lanes	CNEL 50 feet from centerline of outermost lane
Existing (2015)	20,765	73.9	71.9
Buildout (2035)	33,503 (+61%)	77.9	74.5
Traffic Noise Increase		4.0	2.6

Source: FHWA's Traffic Noise Model (TNM).

Future Land Uses. It should also be noted that future residential land uses on currently vacant land can be mitigated on a case by case basis by requiring site specific mitigation. For example, the EIR for the Paradise Knolls Specific Plan that allows for the construction of hundreds of new homes on the Paradise Knolls Golf Course property proposed a number of mitigation measures (i.e., walls, setbacks) for units along Limonite Avenue to reduce noise impacts from roadway traffic to less than significant levels.

Summary of Impacts. The General Plan Noise Element and related General Plan EIR analysis originally indicated that implementation of the proposed Project would increase noise level at sensitive receivers by approximately 1 dB CNEL over the existing CNEL due strictly to traffic volume increases. While existing noise levels currently exceed the City's 65 dBA CNEL land use compatibility standard for single family residences, the relative increase associated with implementation of the proposed Project would not result in a significant impact since the anticipated overall change over ambient levels would be on the order of 1 to 2 dB which is not perceptible in outdoor environments. However, the more site-specific analysis shown in Table Q, based on the modeling of lanes located closer to the "worst case" residential property (i.e., most sensitive noise receptor), indicates that noise levels at that location could exceed the 3 dB audible noise threshold. Therefore, the estimated Project noise impact at this one residential location is potentially significant and requires mitigation.

Mitigation Measures

The operations phase of the Project would result in noise level increases in excess of 3 dBA due to the placement of travel lanes closer to an existing residence.

- NOI-2** Prior to completion and opening of this improved segment of Limonite Avenue, the City shall build a concrete masonry unit (CMU) wall adjacent to the southern property line of the residential use located 1,500 feet east of the intersection of Limonite Avenue and Bain Street (APN 162-200-010). The CMU would have a minimum height of 6 feet with an extent spanning the eastern and western property line boundaries. A gap shall be included in the CMU wall to allow vehicular access to the residence.

Implementation of NOI-2 would reduce noise levels associated with the roadway widening. Noise attenuation provided by the CMU wall would result in noise level reductions from 1 to 5 decibels depending on the location the receptor relative to the sound wall. This wall would reduce traffic noise

associated with the placement of Project traffic lanes closer to the most sensitive receptor residence as well as overall traffic volume increases along the roadway. With Implementation of NOI-2, long-term traffic noise impacts associated with implementation and operation of the proposed Project would be reduced to less than significant levels.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction of the proposed Project would generate and expose persons and structures to various amounts of groundborne vibration. Pile-driving and blasting are generally the sources of the most severe vibration during construction; however, neither pile driving nor blasting would be used during Project construction. Conventional construction equipment would be used for demolition and grading activities. Table R summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment.

The closest sensitive receptor are several residential structures that would be located about 50 feet from construction activity in the eastern and western portion of the Project site. Table S, Vibration Annoyance Criteria at Sensitive Uses, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site. Table T shows the anticipated vibration relative to the nearest sensitive uses proximate to the Project site.

Table R. Vibration Levels for Construction Equipment

Equipment		ppv at 25 feet (in/sec)
Pile driver (impact)	upper range	1.518
	typical	0.644
Pile driver (sonic)	upper range	0.734
	typical	0.170
Vibratory roller		0.210
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003

ppv: peak particle velocity; ft: feet; in/sec: inches per second

Source: Caltrans 2013a; FTA 2006

Table S. Vibration Induced Annoyance at Sensitive Uses

Equipment	Vibration Levels @ Nearest Vibration Sensitive Structures to the Project's Disturbance Area (ppv @ 50 ft)
Vibratory Roller	0.074
Large bulldozer	0.031
Small bulldozer	0.001
Jackhammer	0.012
Loaded trucks	0.027
Criteria	0.9
Exceeds Criteria?	No

ppv: peak particle velocity

Source: FTA 2006 (Calculations can be found in Appendix G)

As shown in Table R, vibration would not exceed the criteria threshold when construction activities occur under maximum (i.e., closest to the receptor) or worst-case exposure conditions. These vibration levels represent conditions when construction activities occur closest to receptor locations. Construction-related vibration would be substantially less under average conditions when construction activities are located farther away. Because vibration levels would be below the significance thresholds, vibration generated by the Project's construction equipment would not be expected to generate strongly perceptible levels of vibration at the nearest uses and would result in less than significant vibration impacts related to vibration annoyance.

Table T, Structural Damage at Sensitive Uses, shows the potential for structural damage to sensitive uses from vibration activities. As shown in Table T, all vibration levels would be below the structural damage threshold at adjacent off-site structures. As such, impacts related to the potential for cosmetic structural damage would be less than significant and no mitigation is required.

Table T. Structural Damage at Sensitive Uses

Equipment	Vibration Levels @ Nearest Vibration Sensitive Structures to the Project's Disturbance Area (ppv @ 50 ft)
Vibratory Roller	0.074
Large bulldozer	0.031
Small bulldozer	0.001
Jackhammer	0.012
Loaded trucks	0.027
Criteria	0.2
Exceeds Criteria?	No

ppv: peak particle velocity

Source: FTA 2006 (Calculations can be found in Appendix G)

Operational Vibration. Caltrans does not consider roadway traffic to generally produce substantial levels of vibration. This is due to roadway vehicles having rubber air-filled tires and flexible suspension systems. Vibration generated from roadway vehicles could be produced by roadway discontinuities (potholes) which cause vehicle chassis to suddenly drop. Because the Project lanes are located approximately 50 feet from the nearest residential structure, vibration levels from roadway discontinuities would not be perceptible if they were to occur. As such, project related vibration impacts would be less than significant and no mitigation is required.

c. A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Less Than Significant Impact. The proposed Project would result in permanent increase in ambient noise levels in the Project vicinity. However, as mentioned above, the existing alignment currently exceeds the threshold of 65 dBA CNEL defined by the City of Jurupa Valley. Table P shows that noise levels associated with the proposed Project would increase no more than 1.1 dB. While this does represent a permanent increase, an increase of this magnitude would not be perceptible and would not represent a significant impact. Therefore, impacts would be less than significant, and no mitigation is required.

d. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Less Than Significant Impact With Mitigation Incorporated. Inclusion of the proposed Project would result in a temporary increase in ambient noise levels in the Project vicinity associated with construction. As shown previously in Table J, construction equipment noise levels range from 77 to 87 dBA. Based on the types of construction activities and equipment required for the proposed Project, noise levels at 50 feet from the center of construction activities would generally range from 80 to 85 dBA during peak periods. Because not all of the equipment would be operating at the same time or for the entire day, the $L_{eq}(h)$ from project construction would be substantially lower. In addition, any increase in the background noise level due to project construction would be temporary. Significant noise impacts would be avoided

by the limitation of noise-generating construction activity to within the hours permitted by County of Riverside's municipal code. Additionally, implementation of measures **NOI-1 and NOI-2** would reduce noise from construction and operation activities to the extent feasible and impacts would be reduced to less than significant levels.

- e. For a project located within an airport land use land use plan or, where such a plan has not been adopted, within 2 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 proposed Project site is not located within a two-mile radius of a public or private airport. Furthermore, no habitable structures are proposed as part of the proposed Project. Therefore, no noise impacts related to air traffic are expected. No impacts would occur.

- f. For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?***

No Impact. The proposed Project site is not located in the vicinity of a private airstrip. Furthermore, no habitable structures are proposed as part of the proposed Project. Therefore, no impacts would occur.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. Population and Housing				
Would the Project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the Project:

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

No Impact. The proposed Project consists of improvements to an existing roadway and are not expected to induce unplanned growth beyond that which is already anticipated by the City General Plan. Therefore, no significant impacts would occur.

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The proposed Project would require additional right-of-way in certain portions of the alignment, however, it would not displace any existing housing. Reconstruction of driveways, fences, walls, and front yard improvements, if necessary, would be performed under construction easements or rights-of-entry. No impacts would occur since no acquisition of homes is proposed for the proposed Project.

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. The proposed Project would not displace existing housing. Reconstruction of driveways, fences, walls, and front yard improvements would be performed under construction easements or rights-of-entry. No impacts would occur since no acquisition of homes is proposed.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. Public Services				
Would the Project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
1. Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project result in substantial adverse physical impacts associated with:

a1. Fire protection?

Less Than Significant With Mitigation. Fire protection service in the Project area is provided by the Riverside County Fire Department. The closest station to the Project site is Station 16 (Pedley) located at 9270 Limonite Avenue in the Pedley community of Jurupa Valley, approximately 0.4 mile east of the Project site. During the construction period, a minimum of one lane of traffic would be maintained in each direction. The construction associated with this proposed Project could affect the response times for fire service providers; however, access would continue to be provided along Limonite Avenue. In addition, there are alternative routes to provide ample access for fire service to all areas of the City and neighboring communities. Project construction activities would be temporary in duration and would not likely have effects that are substantially different than the same types of nuisance-like effects associated with typical construction activities in southern California. In order to minimize potential impacts to response times, construction-period coordination with emergency service providers, schools, businesses, and property owners would be conducted (see measure TRF-1 in Response XVI.e.) to inform the community and public services providers about project construction activities. This coordination would also ensure that access is maintained to and from the Project area during construction and is expected to satisfactorily minimize potential impacts. With implementation of TRF-1, potential impacts to fire services would be less than significant.

The proposed Project involves improvements to an existing roadway. The proposed Project would not result in an increase in population, and thus would not increase demand for community services. No fire stations would be acquired or displaced and therefore, there would be no new demand for fire services. The proposed Project would not induce growth or increase population in the study area or the greater community beyond that which has been previously planned for and would not result in the need for additional fire protection. No impacts from operation of the proposed Project would occur. The improved roadway would likely improve emergency access through the Project area, which would be a project benefit.

a2. Police protection?

Less Than Significant With Mitigation. The City of Jurupa Valley is policed by the Riverside County Sheriff's Department. The nearest station is the Jurupa Valley Station located at 7477 Mission Boulevard in Jurupa Valley. As mentioned previously in Response XIV.a., the partial roadway closure could affect the response times for police service providers; however, access would continue to be provided along Limonite Avenue and there are enough alternative access routes that police services providers would still have ample access to all areas of the City and neighboring communities. In addition, implementation of construction-period coordination with emergency service providers, schools, businesses and property owners (measure TRF-1 in XVI.e.) would ensure that access is maintained to and from the Project area and that the police service providers are notified prior to the start of construction activities. With implementation of TRF-1, potential impacts to police services would be considered less than significant.

As mentioned previously, the proposed Project would not induce population growth in the area but rather accommodate growth that was previously planned and would not result in the need for additional police protection. No impacts from operation of the proposed Project would occur. The improved roadway would likely improve emergency access through the Project area, which would be a project benefit.

a3. Schools?

Less Than Significant Impact. School services are provided by the Jurupa Unified School District and the Corona-Norco Unified School District in the City of Jurupa Valley. The closest schools to the proposed Project are Pedley Elementary School located at 5871 Hudson Street approximately 0.7 mile to the northeast and Troth Street Elementary School located at 5565 Troth Street approximately 0.9 mile to the northwest - both schools are within the Jurupa Unified School District (JUSD 2018).

Construction activities along the roadway would result in temporary, localized, site-specific disruptions upon the local schools primarily related to construction traffic from trucks and equipment in the area, partial street and lane closures that may affect morning school drop-off and afternoon school pick-up traffic. The lane closure may result in slightly longer travel distances and travel times for school buses and those dropping off and picking up students to and from school; however, there are enough alternative access routes in the surrounding neighborhoods to reach local schools. In addition, coordination with emergency service providers, schools, businesses, and property owners (measure TRF-1 in XVI.e.) would ensure that access is maintained to and from the Project area and that local schools are notified prior to the start of construction activities. Construction activities may also affect the walking routes along Limonite Avenue; however, there are enough alternative pedestrian access routes in the surrounding neighborhoods for students to reach local schools. The proposed Project would include standard safety

measures in compliance with County design standards to ensure pedestrians are protected from nearby construction activities. With implementation of TRF-1, potential impacts would be less than significant.

As mentioned previously, the proposed Project would not induce population growth in the area beyond that which has been previously planned and would not result in the need for a new or physically altered school. No impacts from operation of the proposed Project are anticipated.

a4. Parks?

Less Than Significant Impact. South of Limonite Avenue, the Hidden Valley Wildlife Area and Nature Center is located along the Santa Ana River and provides an access point for walking, hiking, and equestrian trails. The Santa Ana River Trail and Parkway is 110-mile trail and bikeway corridor that reaches from the Big Bear Lake in the San Bernardino Mountains to the mouth of the Santa Ana River at the Pacific Ocean. The Santa Ana River Trail and Parkway travels through the Hidden Valley Wildlife Area. The Paradise Knolls Golf Course is located east of the Project site along Limonite Avenue at Downey Street and the Goose Creek Golf Course is located southwest of the Project site at 68th Street and Lucretia Avenue. The Hidden Valley Wildlife Area and Nature Center entrance is located off of Arlington Avenue, south of the Project site. The nearest trailhead to the Santa Ana River Trail and Parkway is the Mary Tyo Equestrian Trailhead located at the southeast corner of Ridgeview Avenue and Limonite Avenue. Construction activities related to the proposed Project could result in temporary, localized, site-specific disruptions and nuisances to park visitors, hikers, bikers, and equestrians. These disruptions and nuisances would potentially include construction-related traffic changes with trucks and equipment in the area, partial roadway closures, increased construction noise, vibration, lighting, and fugitive dust, and general views of construction equipment, and construction activities. Because Project construction activities would be temporary in duration and would not likely have effects that are substantially different than the same types of nuisance-like effects associated with typical construction activities in southern California, impacts would be less than significant. Furthermore, the Hidden Valley Wildlife Area and Nature Center and the Santa Ana River Trail and Parkway would remain open during construction of the proposed Project and the trailhead for the Mary Tyo Equestrian Trailhead would remain accessible. The proposed Project would not induce population growth in the area beyond that which has been previously planned for or that would necessitate the need for new or physically altered parks. No significant impacts to the operation of parks would occur with implementation of the proposed Project.

a5. Other public facilities?

Less-than Significant Impact. Other public facilities include City Hall, which is located approximately 1.8 miles east of the proposed Project site, the Glen Avon Library located approximately 2.0 miles north of the proposed Project site, and the Louis Robidoux Library located approximately 4.7 miles northeast of the proposed Project site. As mentioned previously, the construction activities would result in temporary, localized, site-specific disruptions primarily related to construction-related traffic changes from trucks and equipment in the area, partial roadway closures, increased noise and vibration, lighting, and increases in fugitive dust. Because the Project construction activities would be temporary in duration and would not likely have effects that are substantially different than the same types of nuisance-like effects associated with typical construction activities in Southern California, and due to the distance of these facilities from the proposed improvements, impacts would be considered less than significant.

The proposed Project would not result in the generation of residents on the Project site. As a result the proposed Project would not result in substantial adverse physical impacts associated with the provision of any other public services, such as library services, and would not require new or physically altered governmental facilities, in order to maintain acceptable service ratios, response times, or other performance objectives for any other public facilities not discussed above.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XV. Recreation				
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the Project:

a. *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?*

No Impact. The Hidden Valley Wildlife Area and Nature Center is located along the Santa Ana River and provides an access point for walking, hiking, and equestrian trails. The Santa Ana River Trail and Parkway also travels through the Hidden Valley Wildlife Area. The Paradise Knolls Golf Course is located east of the Project site along Limonite Avenue at Downey Street and the Goose Creek Golf Course is located southwest of the Project site at 68th Street and Lucretia Avenue. The proposed Project would not result in the increased use of any existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would be accelerated. Impacts would not occur.

b. *Include recreational facilities or require the construction of or expansion of recreational facilities that might have an adverse physical effect on the environment?*

No Impact. The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Impacts would not occur.

	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. Transportation/Traffic				
Would the Project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Would the Project:

- a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact. The proposed Project involves improvements to an existing roadway. The proposed Project includes the widening of approximately 0.74 mile of Limonite Avenue from Bain Street to Homestead Street, from two to four lanes. The proposed Project would align with the existing four lane sections that are present just east of Bain Street and just west of Homestead Street. The City of Jurupa Valley General Plan, Mobility Element designates Limonite Avenue from Bain Street to Homestead Street as an Urban Arterial with an ultimate 152-foot right of way. The City's 2017 General Plan, and its

supporting Environmental Impact Report (EIR) and Traffic Impact Assessment (TIA), projected Limonite Avenue would eventually be widened to a minimum of 4 lanes (as currently proposed) and even looked at an alternative of widening it to 6 lanes (see Appendix H). Table 2.D (Existing Traffic) of the City General Plan Traffic Study (LSA 2016) indicated this portion of Limonite Avenue currently had 20,418 average daily trips (ADT) with a Level of Service (LOS) F (volume to capacity ratio of 1.2) and suffers from considerable congestion during both AM and PM peak hours. Conversely, the TIA indicated the intersection of Bain Street and Limonite Avenue had LOS C or better at present, while the Homestead Street intersection with Limonite Avenue was not specifically studied in the General Plan TIA.

The future traffic volume along Limonite under the 4-lane scenario is shown in Table 3.D (Buildout Traffic LOS) of the City General Plan Traffic Study (LSA 2016) indicates traffic was projected to be 28,737 average daily trips (ADT) which resulted in a Level of Service (LOS) D along this portion of the roadway. If the road were to be widened to 6 lanes, as shown in Table 3.4, Future No Project Roadway LOS, and Table 3.A, Buildout Traffic LOS of the City General Plan Traffic Study (LSA 2016), the TIA estimated the future traffic would be 35,529 ADT at LOS C. During the General Plan process, the City observed Limonite Avenue was being used as a regional connector between area freeways and purposely chose to only widen Limonite Avenue to 4 lanes so as to not encourage additional non-resident cut-through traffic during peak hours.

The Riverside Transit Agency (RTA 2018) provides bus services along Limonite Avenue. Bus Routes 21 and 29 service the Project area with a stop on Limonite Avenue just west of Homestead Street. The proposed Project would not eliminate bus service or result in the relocation of any bus stops located along the Project area. The proposed Project would improve traffic circulation and reduce congestion in the area and tie into existing road configurations east of Bain Street and east of Homestead Street. The proposed Project would not conflict with applicable plans, ordinance, or policies that measure the effectiveness of the circulation system. Therefore, the proposed Project would result in an improvement over existing conditions and future conditions anticipated without the widened roadway. This Project would have less than significant impacts related to applicable traffic and transit planning and no mitigation is required.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The proposed Project would not cause an increase in traffic since there would be no trip generation created by the Project (i.e., no new vehicle trips attributed to the proposed Project). This is because the proposed Project would not construct, nor facilitate the construction of, any new homes or businesses that would generate new vehicle trips. Project development would simply better facilitate existing and future traffic flow which at present is heavily congested during both peak hours. Implementation of the proposed Project would improve traffic conditions along Limonite Avenue. It would generally reduce congestion and would not conflict with adopted City or County CMP performance standards. Therefore, impacts in this regard are less than significant and no mitigation is required.

c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact. The Project site is located approximately five miles northwest of the Riverside Municipal Airport, located at 6951 Flight Road in Riverside. This corporate airport services business-class aircrafts to small cabin-class aircrafts on two runways within 451 total acres. The proposed Project is not located within any airport influence area. The proposed Project would add additional travel lanes to an existing roadway, however, no portion of the Project roadway is within any airport influence area. In addition, the Project does not include any structures that would affect aircraft circulation, change air traffic patterns, or otherwise result in a safety risk. Therefore, no impacts would occur.

d. *Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact. The evaluation of potential increases in hazards because of a design feature typically involve determining if any project-related features would result in changes to the circulation system that could result in physical impacts to automobile traffic or pedestrians. Some examples include poor sight-distance at intersections, sharp roadway curves, and placing a driveway/site-access along a high-speed roadway. The proposed Project would widen Limonite Avenue to tie into the existing four lane sections present west of Bain Street and west of Homestead Street. The improvements are intended to help the safety and improve the operation of the existing roadway. The proposed Project would not have any design features or incompatible uses that would increase hazards associated with traffic; therefore, no impacts would occur.

e. *Result in inadequate emergency access?*

Less Than Significant Impact With Mitigation Incorporated. During construction, the Project may restrict access along Limonite Avenue for emergency vehicles and services. Upon completion, the Project would allow for greater emergency access by providing additional travel lanes and full shoulders in this portion of the roadway.

Construction Impacts

Some traffic would be generated during project construction from construction vehicles; however, the number of construction-related trips is anticipated to be small in comparison to the overall traffic volume carried by Limonite Avenue. During construction, emergency vehicle access could be affected from partial lane closures; however, one lane of traffic would be maintained in each direction at all times during construction. Access to the individual properties along Limonite Avenue would be maintained during construction. Implementation of TRF-1, which requires the preparation of Traffic Management Plan (TMP), would ensure that vehicular access is maintained during construction and would be coordinated with emergency service providers. Potential construction related traffic impacts would be reduced to less than significant with implementation of TRF-1.

TRF-1 Prior to the start of construction, the City shall prepare a Traffic Management Plan (TMP) for the Project which will allow for coordination with emergency service providers, schools, businesses, and property owners. The TMP will be provided to emergency service providers

and school officials with construction plans prior to commencement of construction. The following will be included in the coordination effort.

- Implement a construction management program that maintains access to and from the Project area community through signage, detours, flagmen, etc.
- Coordinate with emergency services providers to ensure that alternative response routes to and from the Project area community are in place during construction of the proposed Project.
- Provide access to all fire hydrants along all access routes and provide and maintain fire department vehicle access roads along project site.
- Consult with local school officials to identify safe vehicular routes and pedestrian crossing for students traveling to and from schools in the Project area community during construction of the proposed Project.
- Coordinate with the utility providers for relocation of utility lines and inform the utility users in advance about the date and timings of service disruptions.
- Prepare temporary detour plans during the Plans, Specifications, and Estimates (PS&E) phase.
- Provide notification to be sent to emergency service providers, local school officials, and any residents that may be substantially affected by any street closures (including partial and/or full closures) or traffic diversions at least two weeks in advance of the planned closure or diversion.

Operational Impacts

It is anticipated that construction of the proposed Project would have a beneficial effect on emergency vehicle response times due to the new traffic lanes and roadway improvements. The improvements are intended to help the safety and operation of the existing roadway. No negative long-term operational impacts are anticipated and no mitigation is required.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The Riverside Transit Agency provides bus services along Limonite Avenue. Bus Routes 21 and 29 service the area with a stop on Limonite Avenue just west of Homestead Street. The proposed Project would not alter or conflict with existing bus stops and schedules, and impacts related to the Riverside Transit Agency transit services due to increased traffic on the roadway would be less than significant and no mitigation is required.

The Hidden Valley Wildlife Area and Santa Ana River Trail is located southwest of the site along the Santa Ana River and provides access to walking, hiking, and equestrian trails. The proposed Project would not impact any walking, hiking, or equestrian trails located on the Hidden Valley Wildlife Area or Santa Ana River Trail. At present there are no bicycle paths along Limonite Avenue. The Project proposes to install a 10-foot wide equestrian trail along the north side of the roadway and a 10-foot wide multi-use trail along

the south side of the roadway. The proposed Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities and would not decrease the performance or safety of any facilities. No impacts would occur.

XVII. Utilities and Service Systems	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the Project from existing entitlements and resources, or would new or expanded entitlements be needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Would the Project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The Jurupa Community Services District (JCSD) provides sewage collection and treatment service to the City of Jurupa Valley. The JCSD maintains a regional approach to sewer treatment by discharging wastewater to three different treatment plants from three independent sewer systems. They include the City of Riverside Treatment Plant, a treatment facility in Orange County, and a regional treatment plant operated by the Western Riverside County Regional Wastewater Authority. The JCSD operates Regional Wastewater Pump Station Plant No. 1 located along the south side of Limonite Avenue just east of the Bain Street intersection. The proposed Project does not include any use that would increase demand for wastewater treatment. As such, the proposed Project would not exceed wastewater treatment requirements of the RWQCB, and impacts would not occur.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. As mentioned previously, the JCSD provides wastewater treatment for the City. The proposed Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Impacts would not occur.

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. The proposed Project would provide for the construction of two new box culverts under Limonite Avenue for Pyrite Creek. However, the anticipated impacts to the creek bed are considered minimal. No other new facilities or expansion of existing infrastructure is needed other than standard improvements associated with roadway construction, such as curb and gutter sections and storm drain structures. Therefore, impacts on the existing stormwater drainage facilities would be considered less than significant and no mitigation is necessary.

d. Have sufficient water supplies available to serve the Project from existing entitlements and resources, or would new or expanded entitlements be needed?

No Impact. The proposed Project is a roadway widening and does not contain any components that would require any long-term water services. No impacts would occur.

e. Result in a determination by the wastewater treatment provider that 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?

No Impact. As mentioned previously, the Jurupa Community Services District provides wastewater treatment for the City. The proposed Project does not contain any components that would generate any wastewater that would require treatment at a water treatment plant. No impacts would occur.

f. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less Than Significant Impact. Solid waste services in the City are provided by franchise agreement with Burrtec Waste Industries, Inc. (Burrtec) and USA Waste of California, Inc. (Waste Management). Burrtec and Waste Management service all residential and commercial establishments with trash and recycling services within the City-limits of Jurupa Valley. The Project site is within the Burrtec waste service area although areas west of Bain Street along Limonite Avenue are in the Waste Management service area. The closest transfer station is the Agua Mansa (Robert A. Nelson) Transfer Station located at 1830 East Agua Mansa Road in Riverside. Transfer stations are approved facilities for accepting commercial, residential, and industrial waste and serve as local collection points on the way to the final disposal site. The El Sobrante Landfill, located in the City of Corona has a capacity to process up to 70,000 tons of waste per week (County 2018). The Project would generate a minimal amount of construction waste. Disposal of this material would be contracted to a private disposal company and disposed of following applicable regulations. It is not anticipated that the amount of construction waste would exceed the capacity of local landfills. Impacts are considered less than significant and no mitigation is required.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. No impacts are anticipated.

XVIII. Tribal Cultural Resources

- a. Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020,1(k), or
 - ii) A resource is 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 of a California Native American tribe.

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

Discussion**Would the Project:**

- a. Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074?***

Less Than Significant Impact With Mitigation Incorporated. A tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either eligible for the California Register of Historic Resources (CRHR) or a local register. The results of the Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) produced negative results. As noted by the NAHC, the absence of specific site information in the Sacred Lands File does not indicate the absence of Native American cultural resources within the Project area, so informal scoping letters were sent on September 13, 2018 to the 17 Tribal contacts with ancestral ties to the Project area. The letters informed them of a potential project within the area, requested information related to Cultural or Tribal resources within the Project area, and provided an opportunity to provide questions, comments, or concerns to the lead agency prior to formal Tribal consultation. Six responses from local Tribes were received but none of the responses relayed information concerning known cultural resources. However, the Soboba Band of Luiseño Indians considers the Project area to be sensitive for Tribal Cultural Resources and wishes to discuss specific Tribal concerns during the consultation period.

On October 22, 2018 the City sent letters to three tribes that had previously requested notification of proposed actions under AB 52 to determine if they wished to consult on the proposed Limonite Avenue widening Project.

- Andrew Salas with the Gabrieleno Band of Mission Indians – Kizh Nation
- Michael Mirelez with the Torres-Martinez Desert Cahuilla Indians
- Joseph Ontiveros with the Soboba Band of Luiseno Indians

The City only received one response to this request, from Mr. Ontiveros with the Soboba Band of Luiseno Indians, on December 27, 2018. (see Appendix C). Although this response was beyond the 30-day notification period for consultation under AB 52, the City indicated it would consult with the tribe if they so desired. However, neither Mr. Ontiveros or any other representative of the Soboba tribe subsequently contacted the City regarding consultation. Therefore, the City has exercised its due diligence and has put forth a good faith effort to consult with interested Native American tribes, as documented in Appendix C. Despite not receiving specific direction or input from the Soboba tribe regarding the Project, the City proposes to implement Mitigation Measures TCR-1 through TCR-3 to reduce potential impacts on any Tribal Cultural Resources to a less than significant level.

Implementation of the following Mitigation Measures TCR-1 through TCR-3 will reduce potential impacts on any Tribal Cultural Resources to less than significant levels.

TCR-1 Native American Monitoring. Prior to the start of construction, the City shall retain Native American Monitor(s) that represent the Tribes that have requested monitoring through consultation with the City during the AB 52 process. The City shall coordinate with the Tribe(s) to develop a Tribal Monitoring Agreement(s). A copy of the agreement(s) shall be provided to the Jurupa Valley Planning Department prior to the start of construction.

TCR-2 Treatment of Tribal Resources. If a significant tribal cultural resource is discovered on the property during construction, ground disturbing activities shall be suspended 100 feet around the resource(s). A representative of the appropriate Native American Tribe(s) and the City Planning Department shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented to protect the identified tribal cultural resources from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the tribal cultural resources in accordance with current professional archaeology standards. The treatment plan shall require monitoring by the appropriate Native American Tribe(s) during data recovery and shall require that all recovered artifacts undergo basic field analysis and documentation or laboratory analysis, whichever is appropriate. At the completion of the basic field analysis and documentation or laboratory analysis, any recovered tribal cultural resources shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility, or, the artifacts may be delivered to the appropriate Native American Tribe(s) if that is recommended by the City of Jurupa Valley. A final

report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Jurupa Valley Planning Department, the Eastern Information Center, and the appropriate Native American Tribe.

TCR-3 Disposition of Discoveries. In the event that Native American cultural resources are inadvertently discovered during the course of grading for this Project, the following procedures will be carried out for treatment and disposition of the discoveries.

The City and/or any landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to tribal cultural resources. The City and/or any landowner(s) shall relinquish the artifacts through one or more of the following methods, and any landowner(s) shall provide the City Planning Department with evidence of relinquishment:

- a) If burials are found onsite, a fully executed reburial agreement will be required with the appropriate culturally affiliated Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.
- b) A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.
- c) If more than one Native American Group is involved with the Project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.
- d) Should reburial of collected cultural items be preferred, it shall not occur until after the Phase IV monitoring report has been submitted to the City Planning Department. Should curation be preferred, the City is responsible for all costs and the repository.

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

Discussion

Would the Project:

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

Less Than Significant Impact With Mitigation Incorporated. The existing project vicinity is surrounded by various land uses including institutional land uses, open space areas, residences, wastewater treatment facility, the Santa Ana River, and the Hidden Valley Wildlife Area. The Project occurs within the MSHCP boundary and, as such, there are a number of special-status species that are covered species under the MSHCP. Consistency with the MSHCP measures and requirements provides mitigation of impacts to covered species. There are no natural communities classified as depleted within the limits of disturbance. Implementation of mitigation measures BIO-1 through BIO-11 ensures that potential direct and indirect effects during construction are avoided. There are no wildlife corridors within or adjacent to the Project’s limits of disturbance. However, the Santa Ana River is a biologically important corridor for plant and wildlife connectivity and movement in Riverside County. As its limits of disturbance, the Project site is approximately 370 feet from the floodplain of the Santa Ana River at the west end and approximately 1,200 feet on the east end. Therefore, it is unlikely the proposed Project would affect any animal

movement along the river corridor. In addition, implementation of mitigation measures **BIO-1** through **BIO-11** would minimize or avoid any potential for indirect effects. A portion of the Project area occurs within the Santa Ana River which represents MSHCP Existing Core A and contains important habitat for a wide range of species covered under the MSHCP. The widening improvements of the proposed Project are a covered activity under the MSHCP.

Regarding California history or prehistory, the Project site does not contain any known listed historical resources, although one local resource, the Pfennighausen Ranch, is immediately adjacent to the south side of the Project area. Potential impacts were identified in Section V, Cultural Resources. With implementation of Mitigation Measures CUL-1 through CUL-4 and TCR-1 through TCR-3, potential impacts to historical, archaeological, or paleontological resources would be less than significant.

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

Less Than Significant Impact With Mitigation Incorporated. As described in the previous sections of this environmental checklist, the proposed Project would result in less than significant impacts with mitigation measures on biological resources, hazards/hazardous wastes, and traffic. Implementation of mitigation measures identified in the aforementioned resource areas of this document are required to reduce impacts to a less than significant level.

A cumulative impact could occur if the Project would result in an incrementally considerable contribution to a significant cumulative impact in consideration of past, present, and reasonably foreseeable future projects for each resource area. The cumulative study area for this roadway widening is generally confined to the City of Jurupa Valley. Limonite Avenue, including the segment that comprises the proposed Project, and the intersection of Limonite Avenue with Bain Street, were studied in detail in the City’s General Plan and its various elements, especially the Mobility Element as it relates to cumulative traffic impacts. In addition, the existing and buildout traffic data for Limonite Avenue, and the intersection of Limonite Avenue and Bain Street, was used to also evaluate potential cumulative impacts related to air quality, greenhouse gas emissions, and noise. For the City as a whole, the General Plan EIR identified significant environmental impacts related to criteria air pollutants and greenhouse gas emissions, noise, and traffic, but recommended compliance with a number of General Plan policies and goals to help reduce potential impacts to the greatest degree feasible. Based on the analysis in Sections I. through XVIII above, the Project would not have any significant impacts after implementation of the recommended mitigation, and there was no indication that the Project would result in a significant contribution to any cumulatively considerable impacts that were not already identified and mitigated to the extent feasible in the City General Plan EIR. Therefore, no additional mitigation for this Project is required to address cumulative impacts other than those Project-specific measures already identified above.

- c. Does the Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant Impact With Mitigation Incorporated. Based on the analysis of the above-listed topics, the proposed Project would have potentially significant environmental effects on biological

resources, and hazards/hazardous materials that could cause substantial adverse effects on human beings, either directly or indirectly. However, implementation of measures as provided within each of these resource topic sections of this environmental checklist would reduce project related potentially significant impacts to a less than significant level. Project-related air quality impacts for both construction and operation were determined to be less than significant, which can affect human health and safety, so no air quality mitigation was required. Mitigation Measures HAZ-1 through HAZ-3 would reduce impacts related to hazardous materials to less than significant levels, NOI-1 to limit construction noise, and TRF-1 for potential traffic safety impacts during construction, the proposed Project would result in less than significant environmental impacts to human health and safety.

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City of Jurupa Valley

Chase Keys, PE	Project Manager
Steve Loriso, PE	City Engineer/Public Works Director
Ernest Perea	CEQA Administrator
Taylor Holt	Project Assistant

Psomas

Kent Norton, AICP	Senior Project Manager
Jim Hunter	Principal-in-Charge
Ann Johnston	Resources Management Principal
Brad Blood, Ph.D.	Senior Environmental Scientist
Allison Rudalevige	Senior Biologist
Steve Norton	Senior Biologist
Charles Cisneros	Project Archaeologist
Kassie Sugimoto	Archaeologist
Melissa Macias	Paleontologist
Tin Cheung	Air Quality & Noise Director
Michael Deseo	GIS/Graphics

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