Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: CUP 23-05264 and DPR 24-00014 for the Vallarta Market Place Community Shopping Center Project EIR

Lead Agency: City of Perris | Contact Person: Alfredo Garcia

Mailing Address: 101 North D Street | Phone: (951) 943-5003

City: Perris | Zip: 92570 | County: Riverside

Project Location: County: Riverside | City/Nearest Community: Perris

Cross Streets: North Perris Boulevard/Placentia Avenue | Zip Code: 92570

Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W | Total Acres: 10.55

Assessor's Parcel No.: APN 300-260-001-08 | Section: 17 | Twp.: 4S | Range: 3W | Base: SBBM

Within 2 Miles: State Hwy #: SR76/Ramona Expresswa | Waterways: Perris Valley Storm Drain

Airports: March ARB | Railways: Metrolink/Commuter | Schools: Triple Crown Elemen.

Document Type:

CEQA: ☒ NOP ☐ Draft EIR | NEPA: ☐ NOI | Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ____ ☐ Draft EIS ☐ Other: ____
☐ Mit Neg Dec Other: ____ ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☒ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other: ____

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☒ Commercial: Sq.ft. 101464 Acres 10.55 Employees TBD
☐ Industrial: Sq.ft. ____ Acres ____ Employees TBD
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☒ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Community Commercial

Project Description: *(please use a separate page if necessary)*

The Vallarta Market Place Community Shopping Center project (Project) is the proposed construction and operation of a total of eight new commercial/retail buildings on a 10.55-acre Project site located at the southeast corner of North Perris Boulevard and Placentia Avenue in the City of Perris, CA. The project would include a new grocery store (59,371 sf), three Quick Serve Restaurant buildings totaling 7,067 sf, three retail buildings totaling 30,113 sf and one convenience store (4,913 sf) with an 8 pump (16 position) fueling station. A total of six access driveways would be provided – three along Placentia Avenue and three along Perris Boulevard. A total of 489 parking spaces, including 18 accessible spaces would be constructed.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X	Air Resources Board		Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
	California Highway Patrol		Pesticide Regulation, Department of
	Caltrans District #		Public Utilities Commission
	Caltrans Division of Aeronautics	X	Regional WQCB #7
	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of		SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
X	Fish & Game Region #6		Tahoe Regional Planning Agency
	Food & Agriculture, Department of		Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of		Water Resources, Department of
	General Services, Department of		
	Health Services, Department of		Other:
	Housing & Community Development		Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date November 22, 2024 Ending Date December 23, 2024

Lead Agency (Complete if applicable):

Consulting Firm: Birdseye Planning Group
Address: P.O. Box 1956
City/State/Zip: Vista, CA 92085
Contact: Ryan Birdseye
Phone: 760-712-2199

Applicant: Vallarta Supermarkets
Address: 12881 Bradley Avenue
City/State/Zip: Sylmar, California 91342
Phone: 818-362-7577

Signature of Lead Agency Representative: Alfredo Garcia **Date:** 11-18-24

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOTICE OF SCOPING MEETING & PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Date: **November 22, 2024**

To: State Clearinghouse, Property Owners, Responsible and Trustee Agencies and Interested Parties

From: City of Perris Development Services Department| Planning Division
135 North "D" Street
Perris, CA 92570

Subject: Notice of Preparation (NOP) and Public Scoping Meeting Notice for the preparation of a Draft Environmental Impact Report for the Vallarta Market Place Community Shopping Center Project – Development Plan Review (DPR) 24-00014 and Conditional Use Permit (CUP) 23-05264.

Scoping Meeting: **December 4, 2024, at 6:00 p.m.** (To be held in person)
Perris City Council Chambers
101 N. D Street
Perris CA 92570

NOP Comment Period: **November 22, 2024** through **December 23, 2024**

Project Title: Vallarta Market Place Community Shopping Center Project

Project Applicant: Vallarta Supermarkets, Inc.
12881 Bradley Avenue
Sylmar, CA 91342

Notice of Preparation of a Draft Environmental Impact Report (DEIR):

The City of Perris (City) will be the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and will be responsible for preparation of a Draft EIR for the proposed Vallarta Market Place Community Shopping Center Project (Project). An Initial Study and technical studies have been prepared and the City has determined that an Environmental Impact Report (EIR) is required for the Project based on its potential to cause significant environmental effects (State CEQA Guidelines Sections 15060 and 15081). The City is requesting input from you or your agency or organization as to the scope and content of the environmental information that is relevant to your agency or organization's statutory responsibilities or interests in connection with the proposed Project.

This Notice of Preparation (NOP) identifies the Project applicant, contains the proposed Project description, including Project setting and location, and identifies the potential environmental effects of the proposed Project. A vicinity map is included in this NOP.

The purpose of the NOP is to fulfill legal notification requirements and inform the public and CEQA responsible trustee Agencies that an EIR is being prepared for the proposed project by the City. The NOP

solicits agencies and interested parties concerns regarding the potential environmental effects of implementing the proposed Project at the Project location. CEQA encourages early consultation with private persons and organizations that may have information or may be concerned with any potential adverse environmental effects related to physical changes in the environment that may be caused by implementing the Project.

Responses to the NOP that specifically focus on potentially significant environmental issues are of particular interest to the City of Perris. All comment letters to this NOP will be included in the appendices to the EIR. The content of the responses will help guide the focus and scope fo the EIR in the accordance with the State CEQA Guidelines.

Project Description:

I. Project Location and Setting:

The Project site is located in the City of Perris within the County of Riverside. The Project site consists of a 10.5-acre parcel (APN: 300-260-001) located at the southeast corner of Placentia Avenue and Perris Boulevard. The project site has a General Plan land use designation of Community Commercial and is zoned Commercial Community.

II. Project Description:

The Vallarta Market Place Community Shopping Center project (Project) consists of a total of eight commercial/retail buildings on the 10.55-acre Project site. The following describes each of the project components.

- **Vallarta Supermarket.** Consists of a 59,371 square-foot grocery store/supermarket along the eastern portion of the site. One delivery dock would be located at the rear of the building (east side). Pursuant to Section 5.106.5.5.1 of the 2022, the California Green Building Standards (CALGreen) Code, raceways, busways, and additional electrical capacity for transformers, service panels, or subpanels would be provided to facilitate the future installation of electric vehicle supply equipment for medium-and heavy-duty electric delivery trucks. A total of 238 parking spaces will serve this use. The grocery store would operate between the hours of 7:00 a.m. and 10:00 p.m. No deliveries would occur outside of the business hours.
- **Junior Anchor Building**. A 15,593-square-foot retail building will be located to the south. This would be a single-story building with 63 parking spaces. Delivery will be at the rear of the building (east side). Future retail uses are expected to operate during normal daytime / evening business hours.
- **Convenience Store/Fueling Station.** A 4,913-square-foot convenience store and fueling station would be located at the northwest corner of the site. A total of eight fueling positions and 16 pumps would be constructed. A total of 14 parking spaces would be located proximal to the convenience store to provide employee, customer and vendor parking. It would operate 24 hours a day / seven days a week.
- **Coffee Quick Service Restaurant.** A 2,367-square-foot quick service restaurant dine-in/drive-thru coffee shop building would be constructed adjacent to and south of the convenience store buildings. The drive-thru menu board and pick-up window would be located along the west side of the building facing Perris Boulevard. Eight parking spaces would be on the east side of the building. A tenant has not been identified.
- **Quick Service Restaurant Building 2.** A 2,079-square-foot quick service restaurant building would be provided along the western side boundary, south of the coffee quick service restaurant building. The drive-thru menu board and pick-up window would be located along the west side of the building

facing North Perris Boulevard. A total of 27 spaces will be provided to serve this use. The remainder of parking would be provided in the adjacent parking lot.

- **Quick Service Restaurant Building 1.** A 2,621-square-foot quick service restaurant building would be provided along the western side boundary at the southwest corner of the site, south of the quick service restaurant building 1. The drive-thru menu board and pick-up window would be located on the south side of the building. A total of eight parking spaces and two accessible spaces would be provided on the east side of the building. A total of 31 parking spaces would be provided on the north side of the building. The remainder of parking would be provided in the adjacent parking lot.
- **Retail Building 1.** A 7,520-square-foot retail building would abut the supermarket building to the north. This would be a single-story building with 31 parking spaces. Delivery will be provided at the rear of the building (east side).
- **Retail Building 2.**A 7,000-square-foot retail building would be located near the northeast corner of the site, north of the supermarket building. This would be a single-story building with 28 parking spaces. Delivery will be provided at the front (south side) and east side of the building.

III. Required Entitlements / Approvals

Pursuant to the provisions of CEQA and the State CEQA Guidelines, the City of Perris, as the Lead Agency, is charged with the responsibility of deciding whether to approve the Project. The following approvals and permits are required from the City of Perris to implement the project:

- **Certification of the EIR**
- **Development Plan Review (DPR) 24-00014:** To consider the master site plan, building elevations for the Vallarta Market Place Community Shopping Center.
- **Conditional Use Permit (CUP) 23-05264:** To permit the proposed convenient store / fueling station and drive-thru businesses at the Vallarta Market Place Community Shopping Center**.**

IV. Probable Environmental Effects of the Project:

The City of Perris has prepared an Initial Study and determined that an EIR is required for the Project based on its potential to cause significant environmental effects. The Initial Study found that the following environmental topics would result in less than significant environmental impacts and, therefore, will not be further analyzed in the Draft EIR:

- Aesthetics
- Agriculture and Forest Resources
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Mineral Resources
- Recreation
- Transportation
- Utilities and Service Systems
- Tribal Cultural Resources
- Wildfire

The following environmental topic will be analyzed in the Draft EIR:

- Air Quality
- Greenhouse Gas Emissions

V. EIR Public Scoping Meeting:

Notice is herby given that the City of Perris Development Services Department will hold a Scoping meeting for the general public and interested agencies regarding the proposed EIR addressing the proposed Project. The scoping meeting will be held on December 4th at 6:00 p.m. The scoping meeting will be held at: City of Perris Council Chambers, located at 101 N. D Street, Perris, CA 92570

VI. Public Comment Period:

The Notice of Scoping Meeting & Preparation of a Draft Environmental Impact Report Perris Vallarta Market Place Community Shopping Center, the Initial Study, and project plans are available for review on the City's website at:

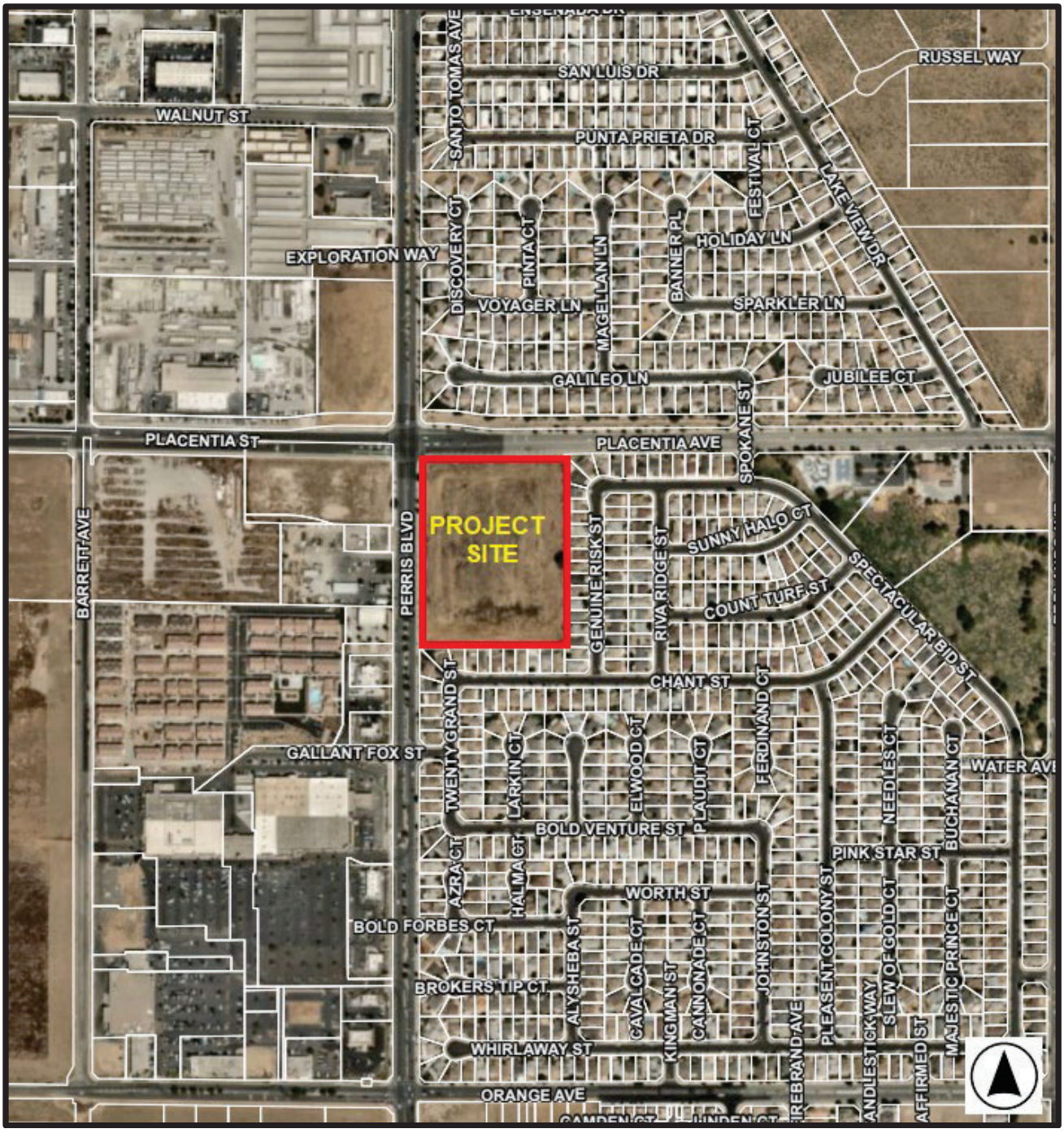
https://www.cityofperris.org/departments/development-services/planning/environmental-documents-for-public-review

Copies of the Notice of Preparation and Initial Study are available for review at the Downtown Library and at the Development Services Department located at 135 North "D" Street, Perris, CA 92570.

Any responses must be submitted to the City of Perris Development Services Department at the earliest possible date, but no later than the December 23, 2024, deadline. Comments must be submitted to:

Alfredo Garcia, Associate Planner
City of Perris, Development Services Department
135 North "D" Street
Perris, CA 92570
Email: algarcia@cityofperris.org
Phone: (951) 943-5003 Ext. 287

VICINITY MAP



VALLARTA MARKET PLACE SHOPPING CENTER PROJECT

INITIAL STUDY

Prepared for:

City of Perris Planning Division
135 North D Street
Perris, CA 92570

Prepared by:

BPG
BIRDSEYE
PLANNING GROUP

October 2024

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Appendices

INITIAL STUDY

1. Project title:

Vallarta Market Place Community Shopping Center

2. Lead agency name and address:

City of Perris
101 North D Street
Perris, California 92570-2200

3. Contact person and phone number:

City of Perris
Development Services Department, Planning Division
Alfredo Garcia, Senior Planner
Phone Number: 951-943-5003
Email: agarcia@cityofperris.org

4. Project location:

The Project site (APN 300-260-001-08) is comprised of approximately 10.55 acres located within the Central Core planning area (Planning Area 5) of the City of Perris at the southeastern corner of Placentia Avenue and North Perris Boulevard. It is located approximately 0.9 miles east of Interstate 215 (I-215), approximately 8.3 miles south of State Route (SR-) 60 and approximately 1.3 miles south of March Air Reserve Base/Inland Port Airport (MARB/IPA). The Project site is located adjacent to and south of the Mid County Parkway, a planned 16-mile transportation corridor between the Perris and San Jacinto areas. The eastern-most segment follows the Placentia Avenue alignment between I-215 and Redlands Avenue. Construction of the Interstate 215/Placentia Avenue Interchange in Perris, the first Mid-County Parkway segment, began in August 2020 and opened in December 2022. This project widened Placentia Avenue to four lanes (two lanes in the east and west directions). The Riverside County Transportation Commission (RCTC) has not determined the timing for construction of additional Mid-County Parkway segments. Figure 1 depicts the Project site in relation to the region. Figure 2 depicts the Project site in relation to the surrounding area. The Project site is located along the south side of Placentia Avenue east of North Perris Boulevard. The site abuts single-family residences to the east along the west side of Genuine Risk Street and to the south along the north side of Chant Street.

5. Project sponsor's name and address:

Vallarta Supermarkets

Figure 1—Vicinity Map

● - **Project Site**

Figure 2—Vicinity Map - **Project Site**

12881 Bradley Avenue
Sylmar, California 91342

6. General Plan designation:

Community Commercial

7. Zoning:

Commercial Community

8. Surrounding Land Uses and Setting:

The Project site is comprised of disturbed vacant land that is generally flat with an elevation of approximately 1,448 feet above mean sea level. The project site is in an area characterized primarily by commercial, single-family residential, and light industrial uses. Light industrial, and commercial uses are located to the west of the site along the western side of North Perris Boulevard. A single-family residential neighborhood abuts the site to the east along the west side of Genuine Risk Street and to the south along the north side of Chant Avenue.

The General Plan land use designation for the Project site is Community Commercial and the zoning designation is Commercial Community. Commercial and light industrial land use designations are also located to the west across North Perris Boulevard. Land to the north is zoned R-6,000 - Residential 6,000, land to the east and south is zoned MFR-14 - Multifamily Residential 14.

The Project site is located approximately 1.3 miles south of MARB/IPA and is located within the MARB/IPA Airport Influence Area Boundary as well as the 2018 U.S. Air Force Final Air Installations Compatible Use Zone (AICUZ) Study. The Project site is within Airport Overlay Zone B1 (Inner Approach/Departure Zone) and Accident Potential Zone (APZ) II. Prohibited uses include new residences and other noise sensitive uses including daycare centers, schools, hotels/motels.

The Project site is located within the Mead Valley Area Plan area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) but is not located within any Criteria Cells or MSHCP Conservation Areas. Further, the Project site is not located within any designated species survey areas as depicted in Figures 6-2, 6-3, and 6-4 within Section 6.3.2 of the MSHCP.

9. Project Description:

The Vallarta Market Place Community Shopping Center project (Project) is the proposed construction and operation of a total of eight new commercial/retail buildings on the 10.55-acre Project site. The following describes each of the three project components and addresses on-site

improvements that would be required to accommodate the proposed uses. The proposed uses would be allowed by right under the existing Commercial Community zoning designation. The proposed site plan is shown in Figure 3. A rendering of the proposed site plan is shown in Figure 4.

Vallarta Supermarket. The Project applicant would construct and operate a new 59,371 square-foot grocery store/supermarket along the eastern portion of the site. One delivery dock would be located at the rear of the building (east side). Pursuant to Section 5.106.5.5.1 of the 2022 California Green Building Standards (CALGreen) Code, raceways, busways, and additional electrical capacity for transformers, service panels, or subpanels would be provided to facilitate the future installation of electric vehicle supply equipment for medium- and heavy-duty electric delivery trucks. See Figure 5.

Junior Anchor Building. A 15,593-square-foot retail building would abut the supermarket building to the south. This would be a single-story building with parking and delivery provided at the rear of the building (east side). See Figure 6.

Convenience Store/Fueling Station. A 4,913-square-foot convenience store and fueling station would be located at the northwest corner of the site. A total of eight fueling positions and 16 pumps would be constructed. A total of 14 parking spaces would be located proximal to the convenience store to provide employee, customer and vendor parking. See Figure 7.

Coffee Quick Service Restaurant. A 2,367-square-foot quick service restaurant dine-in/drive-thru coffee shop building would be constructed adjacent to and south of the convenience store buildings. The drive-thru menu board and pick-up window would be located along the west side of the building facing North Perris Boulevard. Eight parking spaces for quick service restaurant building 1 would be on the east side of the building. See Figure 8,

Quick Service Restaurant Building 2. A 2,079-square-foot quick service restaurant building would be provided along the western side boundary, south of the coffee quick service restaurant building. The drive-thru menu board and pick-up window would be located along the west side of the building facing Perris Boulevard. A total of five parking spaces and one accessible space would be provided in front (east side) of the building. The remainder of parking would be provided in the adjacent parking lot. See Figure 9.

Quick Service Restaurant Building 1. A 2,621 square-foot quick service restaurant building would be provided along the western side boundary at the southwest corner of the site, south of the quick service restaurant building 1 The drive-thru menu board and pick-up window would be located on the south side of the building. A total of eight parking spaces and two accessible spaces would be provided on the east side of the building. A total of seven spaces would be provided on the north side of the building. The remainder of parking would be provided in the adjacent parking lot.

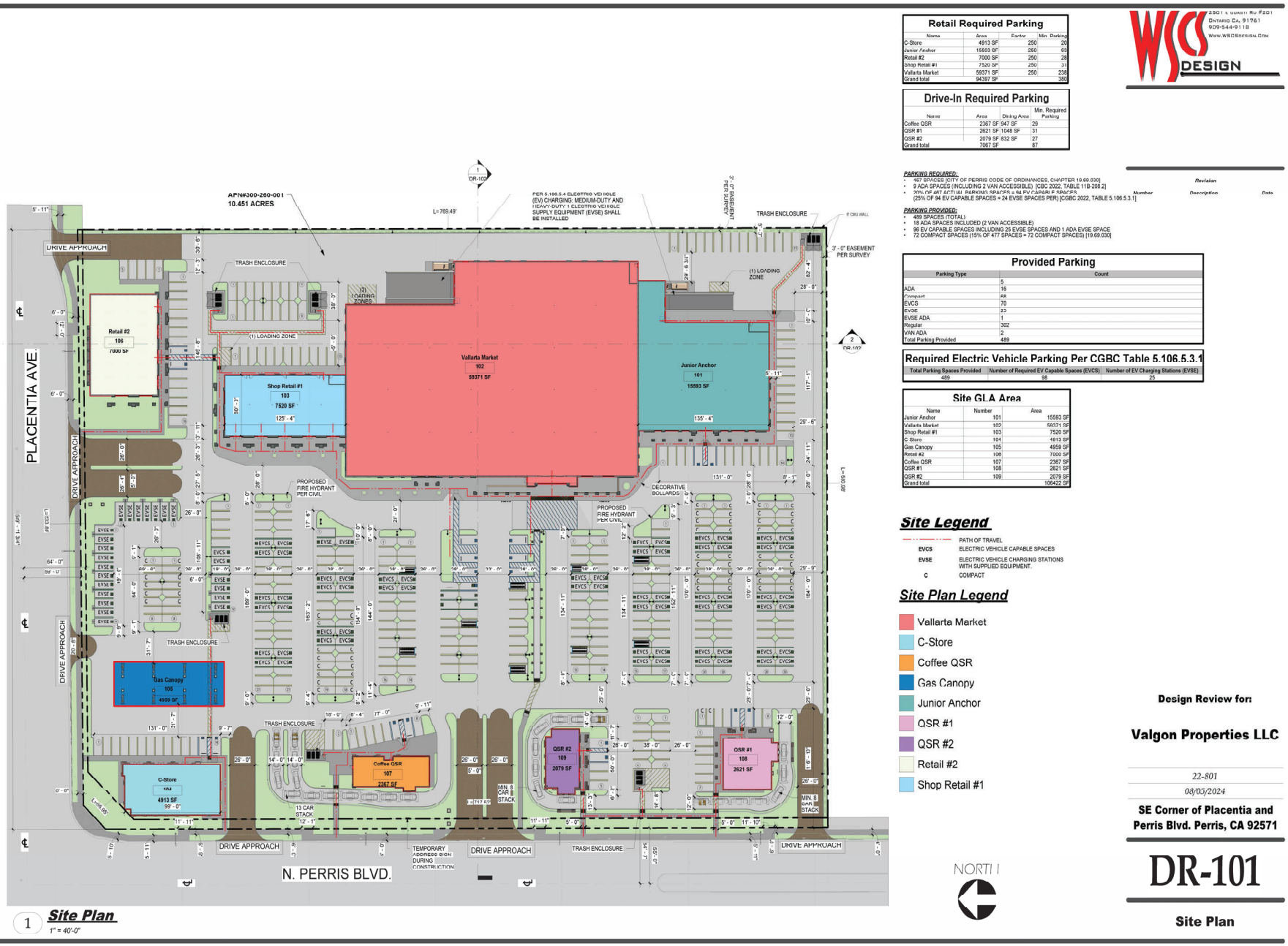


Figure 3— Site Plan

Figure 4 — Proposed Site Rendering

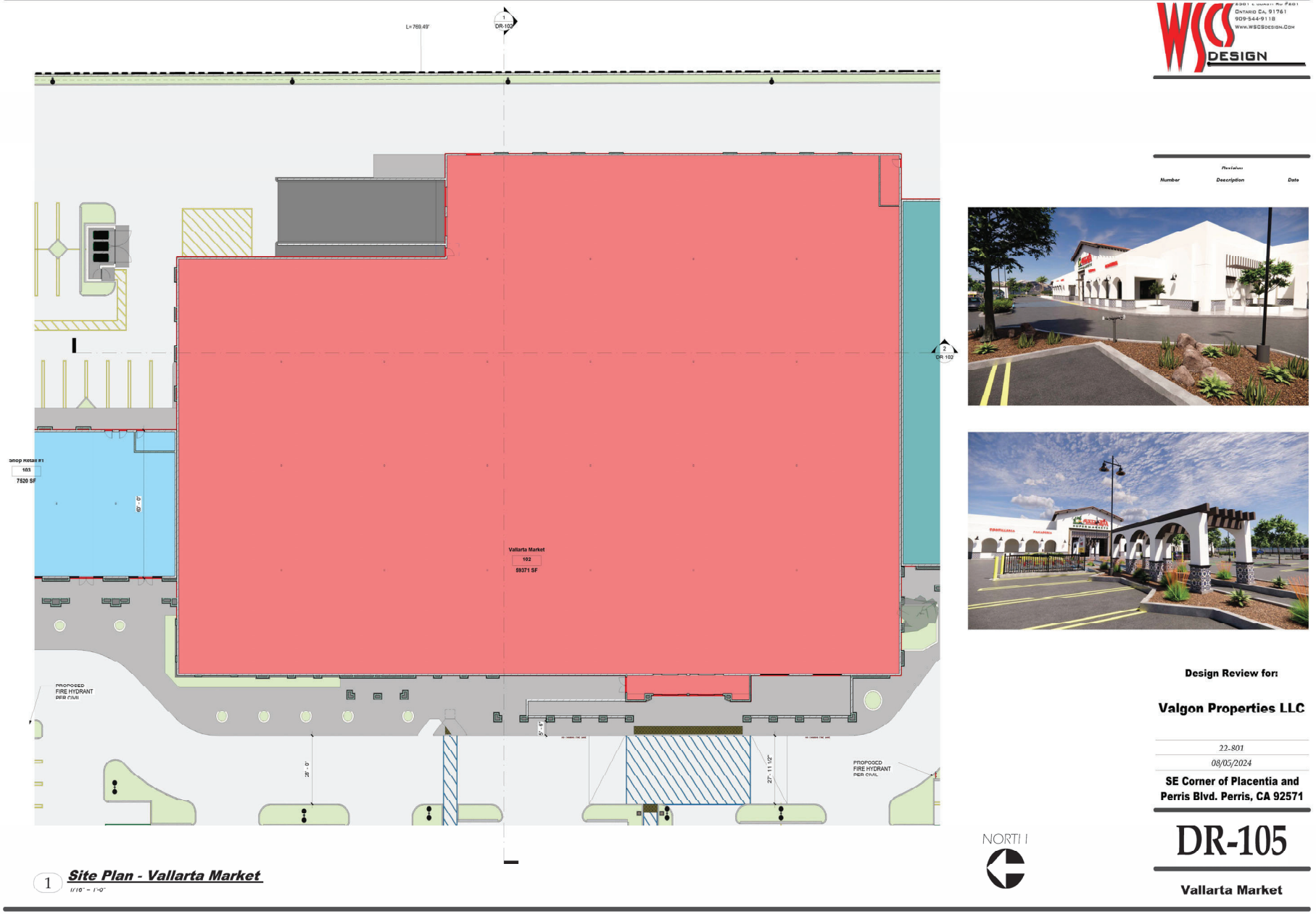
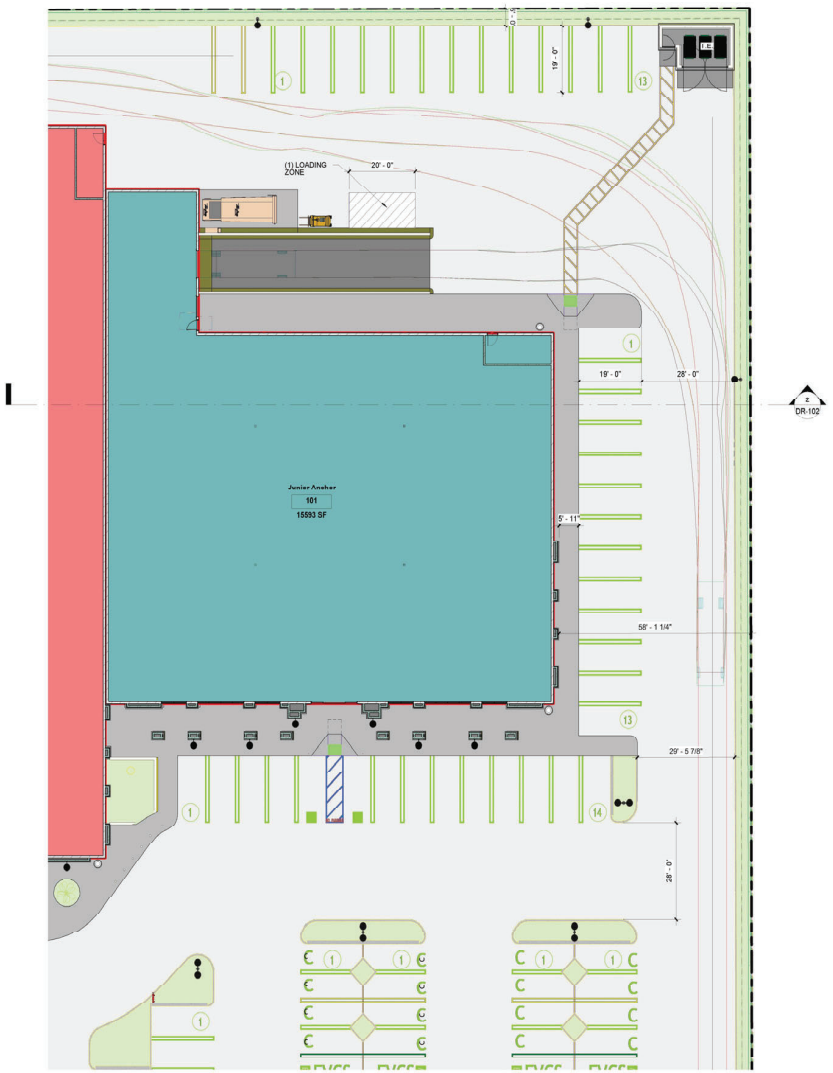


Figure 5 — Supermarket Rendering



1 **Junior Anchor - Roof View**
1/16" = 1'-0"

NORTH

WSC DESIGN
2501 E. Guasti Rd #201
Ontario Ca, 91761
909-544-9118
www.WSCDesign.Com

Revision
Number | Description | Date

Design Review for:

Valgon Properties LLC

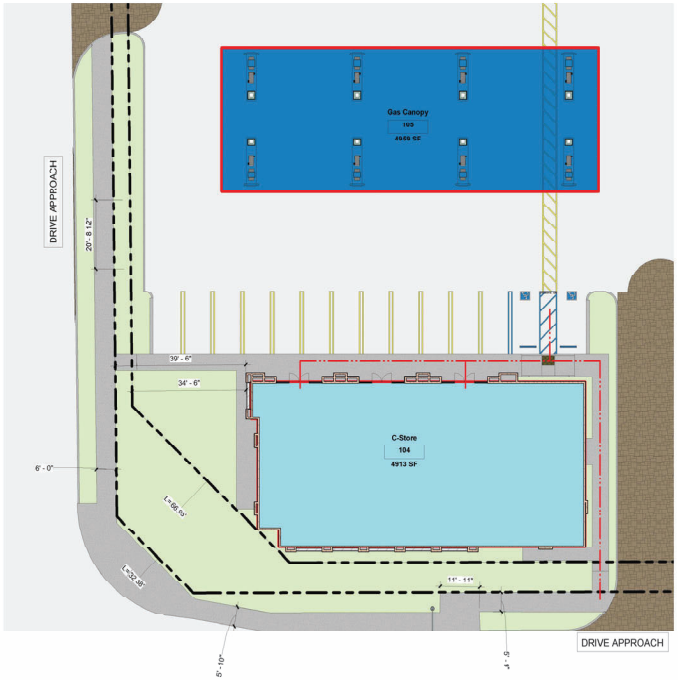
22-801
08/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-104

Junior Anchor

Figure 6 — Junior Anchor Rendering



1 Site Plan - C-Store
1/16" = 1'-0"

NORTH

WSCS DESIGN
2501 E Guasti Rd #201
Ontario CA, 91761
909-544-9118
www.wscsdesign.com

Revision
Number | Description | Date

Design Review for:

Valgon Properties LLC

22-801

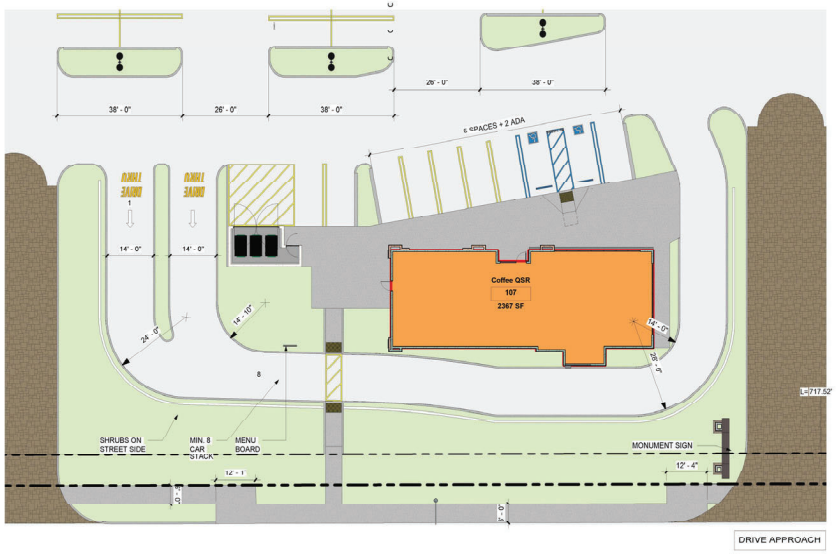
08/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

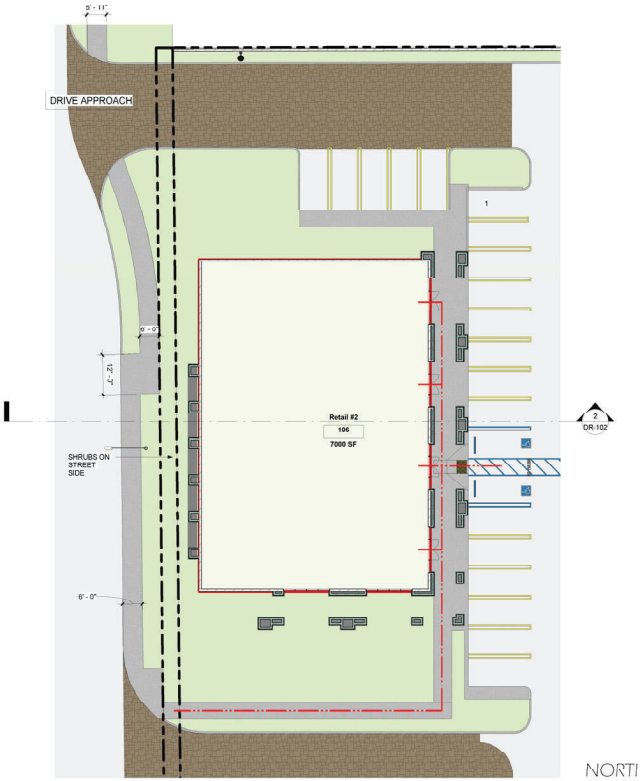
DR-107

C-Store & Gas Canopy

Figure 7 — Convenience Store/Fueling Station Rendering



2 **Site Plan - Coffee QSR**
1/16" = 1'-0"



1 **Site Plan - QSR / Shops**
1/16" = 1'-0"

WSCS DESIGN
2501 E. Guasti Rd #201
Ontario CA, 91761
909-544-9118
www.wscsdesign.com

Revision
Number | Description | Date

Design Review for:

Valgon Properties LLC

22-801
06/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-108

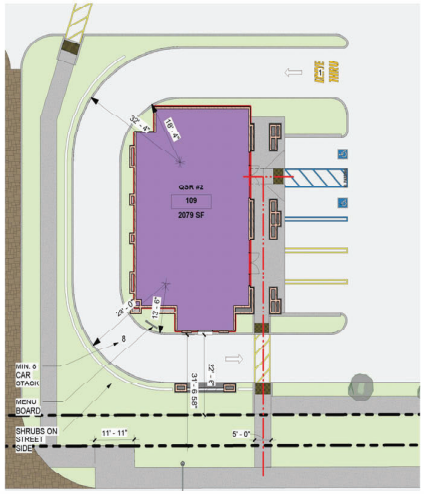
QSR / Shops - Coffee QSR

Figure 8 — Coffee Quick Service Restaurant Rendering

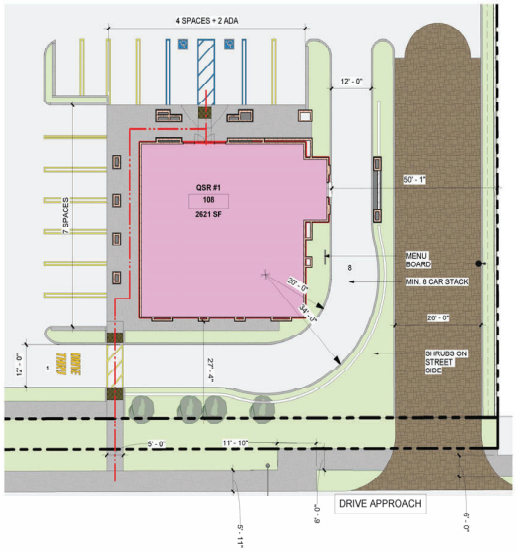
WSC DESIGN
2501 E. Guasti Rd #201
Ontario Ca, 91761
909-544-9118
www.WSCDesign.Com

Revision

Number	Description	Date



2 **Site Plan - QSR #2**
1/16" = 1'-0"



1 **Site Plan - QSR #1**
1/16" = 1'-0"

NORTH

Design Review for:

Valgon Properties LLC

22-801

08/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-109

QSR #1 & QSR #2

Figure 9 — Quick Service Restaurant 1 and 2 Rendering

Retail Building 1. A 7,520-square-foot retail building would abut the supermarket building to the north. This would be a single-story building with parking and delivery provided at the rear of the building (east side). See Figure 10

Retail Building 2.A 7,000-square-foot retail building would be located near the northeast corner of the site, north of the supermarket building. This would be a single-story building with parking and delivery provided at the front (south side) and east side of the building.

Site Access. A total of six access driveways would be provided – three along Placentia Avenue and three along Perris Boulevard. One driveway along Placentia Avenue and one driveway along Perris Boulevard would be two -lane ingress/egress access. Two additional driveways along Placentia Avenue and two driveways along Perris Boulevard would provide single-lane access. Delivery vehicles for the grocery store and retail buildings would use the driveways at the northeast and southwest corners of the site.

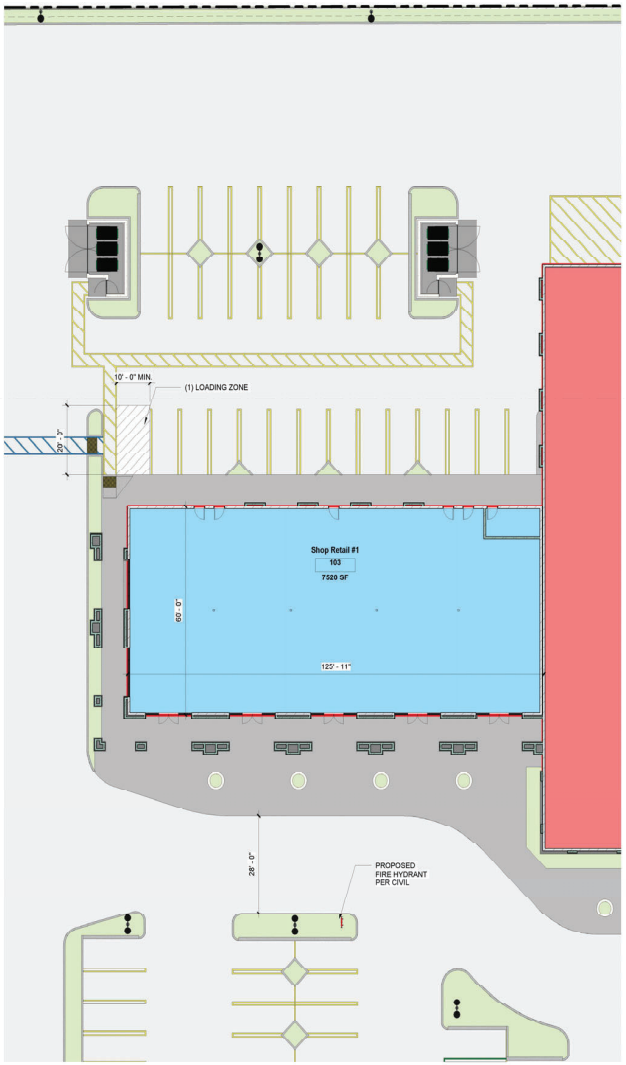
A total of 489 parking spaces are proposed. The total would include 18 accessible spaces. Pursuant to Section 5.106.5.3.1 of the 2022 CALGreen Code, at least 70 electric vehicle (EV) capable parking spaces would be provided while at least 26 of these spaces, including one ADA space would provide EV chargers at the time that the Project begins operations. More chargers would be added in the future based on demand.

Utilities and Infrastructure. The proposed Project includes the extension of sewer, water, storm drain, electricity and telephone/data lines to the site. Communication services, including digital cable and high-speed internet services, in the City of Perris are primarily provided by Spectrum and Earthlink as well Frontier Communications. Solid waste collection and transport in the City of Perris is collected by CR&R, Inc.

Water/Sewer. Potable water would be provided by the Eastern Municipal Water District (EMWD) via new meters connected to a water main located within the Perris Boulevard right-of-way. Water for fire service would be provided via a looped system with a detector check and connection to the water main near the central driveway approach and along the west side of the site adjacent to the quick service restaurant buildings.

Wastewater would be conveyed by the EMWD via a new lateral to an existing line along Placentia Avenue to the Perris Valley Regional Water Reclamation Facility for treatment.

Stormwater. The proposed Project incorporates site design, source controls and treatment control Best Management Practices (BMPs) to address storm water runoff as stipulated in the Preliminary Water Quality Management Plan (Appendix G of this Initial Study). As designed, stormwater would pass through Modular Wetlands flow-thru biofiltration devices prior to entering one of two underground infiltration tanks and would then percolate through bioretention media.



1 **Site Plan - Shop Retail #1**
1/16" = 1'-0"

WSC DESIGN
Ontario Ca, 91761
909-544-9118
Www.WSCDesign.Com

Revision

Number	Description	Date

NORTH

Design Review for:

Valgon Properties LLC

22-801

08/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-106

Shop Retail #1

Figure 10 — Retail Building 1 Rendering

Natural Gas Service. Natural gas service would be provided to the Project by the Southern California Gas Company (SoCalGas). Existing natural gas transmission pipelines and local service pipelines run along Perris Boulevard and Placentia Avenue west and north of the site. The property owner would apply to SoCalGas to establish an industrial and commercial customer connection through an approved industrial and approved commercial service connections.

Electric Service. Electric Service would be provided to the Project by Southern California Edison (SCE). Existing local service electrical transmission lines run in Perris Boulevard and Placentia Avenue. The property owner would apply to SCE to establish commercial customer connections.

Lighting. All outdoor street lighting and on-site security lighting and landscape lighting would be designed to City of Perris standards and depicted in a Photometric Plan that demonstrates how one-foot candle of light would be maintained throughout the parking and pedestrian areas while maintaining MARB/IPA lighting requirements. All lighting would be low-pressure sodium and fully shielded to ensure no spill over into the residential areas located to the south and east.

Screen Walls. Screen walls and fencing would be provided along the southern and eastern boundaries for screening, privacy, noise control, and security. These are proposed to be eight-foot-high concrete tilt-up wall with decorative pilasters.

Landscaping. All buildings would have perimeter landscaping except where loading docks and entries would interrupt planting. Landscape areas would be provided on all sides of buildings visible to the public and intended to visually reinforce the commercial theme within the overall project as well as along North Perris Boulevard and Placentia Avenue. Shade canopy trees would be installed as a backdrop for all landscaping improvements to provide shade, partially screen the buildings as well as provide separation between the commercial areas and residences located to the south and east. In addition, planting beds with varied shrub species will be installed along sidewalks in the landscaping foreground. No turf is proposed on-site.

The conceptual landscape plan (see Figure 11) will include the plants' location, number, genus, species, and container size. The plan should consist of perimeter right-of-way and on-site interior landscaping, including treatment of detention basins. As a commercial use, the Project would be required to provide a minimum of 12% landscape coverage. Pursuant to Section 5.106.12.1 of the 2022 CALGreen Code, shade trees with a minimum number 10 container size would be planted to provide shade over 50 percent of the parking area within 15 years.

Energy Efficiency. The proposed Project would be designed and operated consistent with the California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and

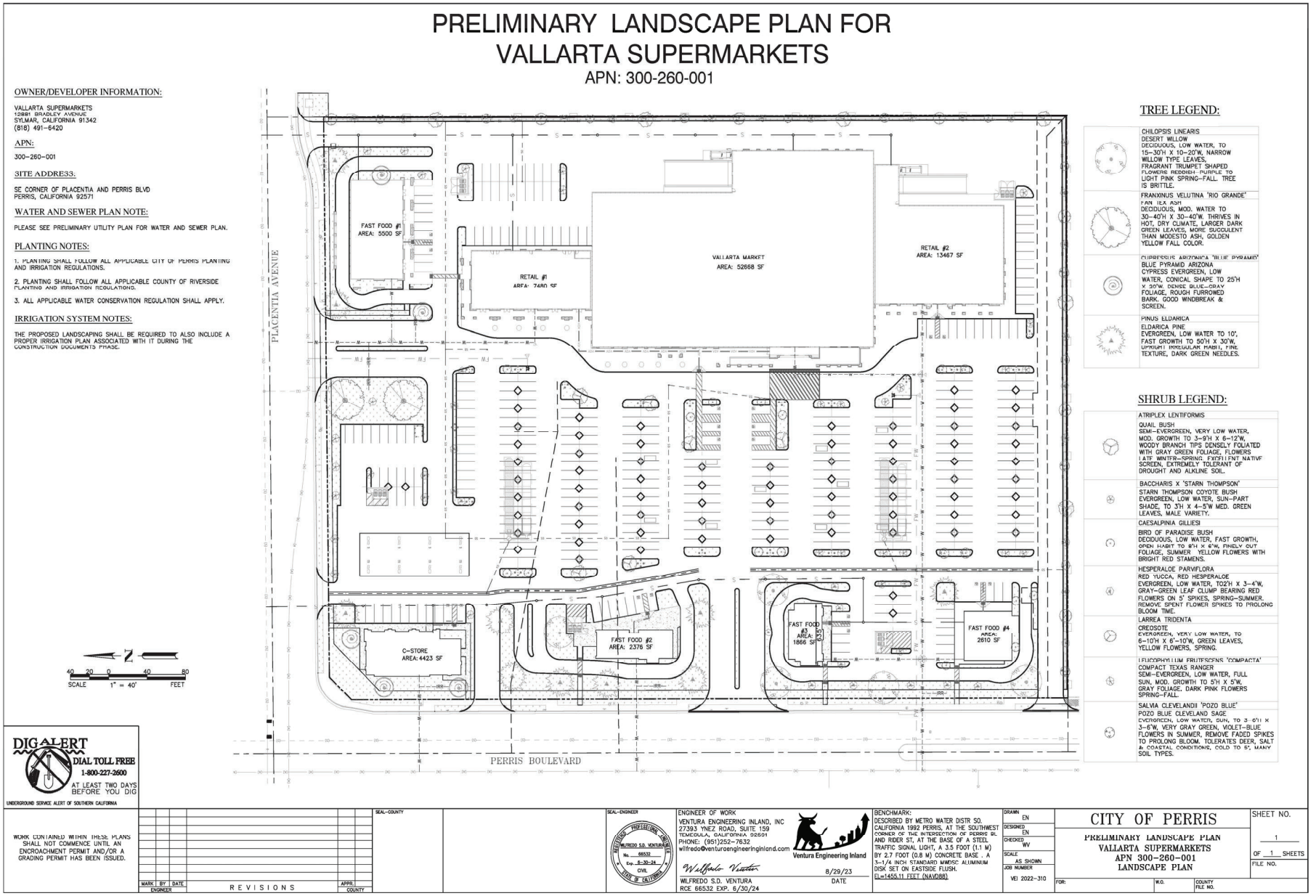


Figure 11 — Landscape Plan

environmental quality. Consistent with CALGreen standards, the project would provide short-term and long-term bicycle parking, electric vehicle charging and meet the electric vehicle charging readiness requirements for the supermarket and retail buildings. The Project would meet applicable requirements for light pollution reduction, grading/paving, installation of shade trees, water conserving plumbing fixtures and fittings, construction waste management, recycling of excavation soil and debris and recycling of waste material generated during operation of the proposed buildings.

Construction Characteristics. Construction is expected to occur over a period of approximately 18 months. Construction would likely be phased based on demand; however, for the purpose of this evaluation, construction of the entire project is expected to occur at the same time. Construction activity is regulated by the City's Municipal Code, Section 7.34.060, which allows construction activities during daytime hours (between the hours of 7:00 am and 7:00 pm), Monday through Saturday, except for legal holidays. Construction equipment is expected to operate on the Project site up to eight hours per day during the allowed days and time period; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m. and construction equipment is not in continual use. Rather each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Municipal Code, the applicant would be required to obtain authorization from the City of Perris. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, nighttime work would typically occur between the approximate hours of 2:00 am and 8:00 am.

Lights may be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. Further, in the event that construction related activities occur during nighttime hours at the Project site, temporary, overhead artificial lighting would be provided to illuminate the work area.

Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction of the Project would require common construction equipment.

Operating Hours. The proposed supermarket would operate between the hours of 7:00 a.m. and 10:00 p.m. during which time, all daily deliveries would occur. No deliveries would occur outside of business hours. The retail stores are expected to operate during normal daytime/evening business hours. No quick service restaurant tenants have been identified at this time so the operating hours are unknown. It is assumed that the quick service restaurants would not operate 24-hours per day. The convenience store and fueling station could operate 24 hours per day.

10. Project Approvals

Development Plan Review (DPR) 23-05264. A Development Plan approval will be required for construction of the supermarket, retail buildings, convenience store and restaurant buildings.

Conditional Use Permit (CUP) 23-05264: A Conditional Use Permit is required to allow development of the proposed fast-food restaurants with drive-thru windows and the convenience store/fueling station.

11. Other public agencies whose approval is required:

Regional Water Quality Control Board (RWQCB) – Issuance of a Construction Activity General Construction Permit and Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit

South Coast Air Quality Management District – Permits to construct and/or permits to operate new stationary sources of equipment that emit or control air contaminants, such as cooking equipment. Permit to construct and/or permit to operate the proposed fueling station including stationary source equipment that would control evaporative emissions.

Eastern Municipal Water District – water and sewer connections.

Southern California Edison – electrical line connections.

Southern California Gas Company– natural gas connections.

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun is there a plan for consultation?

In accordance with the requirements of AB 52, the City of Perris, as the lead agency, notified the local tribes identified by the Native American Heritage Commission (NAHC). The notices were sent to the following tribes on June 12, 2024:

- Agua Caliente Band of Cahuilla Indians;
- Torrez Martinez Desert Cahuilla Indians;
- Morongo Band of Mission Indians;
- Pechanga Band of Indians;
- Rincon Band of Luiseño Indians; and
- Soboba Band of Luiseño Indians.

The comment period concluded on July 11, 2024. No responses were received.

ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ 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 in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

_____ _____

Signature Date

_____

Printed Name

ENVIRONMENTAL CHECKLIST

The lead agency has defined the column headings in the environmental checklist as follows:

A. "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.

B. "Less Than Significant with Mitigation Incorporated" applies where the inclusion of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. "Less Than Significant Impact" applies where the project does not create an impact that exceeds a stated significance threshold.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which 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).

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

a) Scenic vistas are generally defined as public viewpoints that provide expansive or notable views of a highly valued landscape and are typically identified in planning documents, such as a general plan, but can also include locally known areas or locations where high-quality public views are available. The City of Perris General Plan does not identify or otherwise designate scenic vistas or protected viewsheds; however, natural landforms are visible throughout the City. These include Lake Perris Dam, the Russell Mountains and Bernasconi Hills which are all located approximately two miles east of the Project site, and Gavilan Hills and Motte-Rimrock Reserve which are located west/southwest of the Project site.

Impacts on scenic vistas can result from development directly diminishing the scenic quality of the view or by blocking view corridors. Due to the relatively flat and broad nature of the City's topography, including the Project site and surrounding area, Section 6.1 of the City of Perris

General Plan EIR identified that "virtually all future building construction consistent with land use and development standards… will obstruct views to the foothills from at least some vantage points." The General Plan EIR concludes that the City's east-west and north-south oriented roadways are intended to frame and preserve scenic views towards distant horizons and foothills.

The Project site is relatively flat and undeveloped with little topographical change and ruderal vegetation. Development at the Project site would include commercial land uses consistent with the existing General Plan and zoning designations. While development of the Project may obstruct views to the foothills from at least some vantage points (i.e., residences to the south of the site); the building designs would be consistent with land use development standards referenced above and the proposed landscaping would preserve east/west roadway corridors that also support scenic views. A **less than significant impact** to scenic vistas would occur with Project implementation.

b) There are three designated state scenic highways in Riverside County as defined by the California Department of Transportation. The nearest state-designated scenic highway to the Project site is the segment of State Route 74 (SR-74) that extends from the western boundary of the San Bernardino National Forest (22 miles east of the site) to Highway 111 in the City of Palm Desert. There are presently no officially designated State Scenic Highways that extend through the City of Perris. There are no protected/historic tree species, historic structures or other visually prominent features on the site. **No impact** to these resources would occur as a result of Project implementation.

c) According to CEQA § 21071(a)), an urbanized area is an incorporated city that meets either of the following criteria: (1) has a population of at least 100,000 persons, or (2) has a population of less than 100,000 persons if the population of that city and no more than two contiguous incorporated cities combined equals at least 100,000 persons. According to the US Census Bureau, in July 2023 the City of Perris' population was approximately 80,603, the population of Moreno Valley, the contiguous city to the north, was 212,392, and the population of Menifee, the contiguous city to the south, was 113,433; therefore, the Project site is located within an urbanized area. Because the Project site is located within an urbanized area, the threshold for analysis is would the Project conflict with applicable zoning and other regulations governing scenic quality.

The existing visual character of the Project site and surrounding area is characterized by urbanizing commercial, light industrial, and residential land uses. The Project site is vacant. Development immediately surrounding the vacant and undeveloped Project site includes single-family residential neighborhoods to the east, north, and south, and commercial and light industrial uses to the west along the western side of Perris Boulevard. The Project would comply with the City's applicable site development criteria such as height limitations, setbacks, screening and landscaping. Therefore, the Project would be consistent with the planned site uses and would not conflict with applicable zoning or other regulations governing scenic quality. Potential impacts associated with the visual character and quality and applicable

regulations governing scenic quality would be **less than significant** and no mitigation would be required.

d) There are two primary artificial sources of light that generally affect an urban environment: light emanating from building interiors that passes through windows to the outside and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting) that affect the natural ambient light level. The introduction of light can affect adjacent areas and diminish night sky views depending on the location of the light sources and proximity to nearby light-sensitive areas.

Glare can be caused by unshielded or misdirected lighting sources. Reflective surfaces such as chrome or polished metal can also be a source of glare. Glare results from development and associated parking areas that contain reflective materials such as hi-efficiency window glass, highly polished surfaces and expanses of pavement. The Project site is in a developing area with a mix of commercial/light industrial and single-family residential development. The existing lighting in the project area includes streetlights and vehicle lights within the adjacent roadway corridors and interior and exterior building lighting from developed parcels proximal to the site.

Proposed lighting is anticipated to include a combination of street and security lighting (including signage) on the exterior of each building and in parking areas. City of Perris Ordinance No. 1051 requires the use of specific types of light fixtures on nonresidential properties to minimize the amount of light cast on adjoining properties, the public right-of-way and into the night sky.

During construction, lights would be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. Further, in the event that construction-related activities occur during nighttime hours, temporary, overhead artificial lighting would be provided to illuminate the work area. Due to the distance between the construction area and the adjacent residents and motorists on adjacent roadways, such security lights may result in glare to residents and motorists. With implementation of Mitigation Measure AES-1, this potential impact would be **less than significant with mitigation incorporated**.

> **Mitigation Measure AES-1:** Prior to issuance of grading permits, the Project developer shall provide evidence to the City of Perris that any temporary nighttime lighting installed for security purposes shall be downward facing and hooded or shielded to prevent security light spillage outside of the staging area or direct broadcast of security light into the sky.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

a) The Farmland Mapping and Monitoring Program is a statewide program that designates farmland among several categories. The Farmland Mapping and Monitoring Program is maintained by the California Department of Conservation, which is the agency responsible for overseeing farmland classification throughout the state. Agricultural land is rated according to soil quality and irrigation status. The land use highest potential agricultural value is Prime Farmland. Unique farmland is land, other than Prime Farmland, that has combined conditions to produce sustained high quality and high yields of specialty crops. Farmland of Statewide Importance may include tracts of land that have been designated for

agriculture by State law. These three categories are considered to be Farmland. In some areas that are not identified as having national or statewide importance, land is Farmland of Local Importance. Urban and Built-up Land are not considered agricultural land or Farmland.

While the undeveloped project site would be converted from a vacant parcel to a commercial land use, the conversion would not include the loss of Farmland. According to the Farmland Mapping and Monitoring Program online mapping database (CDC 2016), the Project site is classified as Farmland of Local Importance and does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). Furthermore, the Project site is not used for agricultural production. Therefore, **no impact** would occur.

b) The Williamson Act, also referred to as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than typical because they are based upon farming and open space rather than full market value. The Williamson Act is only applicable to parcels within an established agricultural preserve consisting of at least 20 acres of Prime Farmland, or at least 40 acres of land not designated as Prime Farmland. The Project site does not meet these criteria, does not qualify for preservation under a Williamson Act contract, nor is the land under a Williamson Act contract. Therefore, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **No impact** would occur.

c) Public Resources Code Section 12220(g) defines "forest land" as land that can support 10 percent native cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. According to Public Resources Code Section 4526, "timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Based on these definitions, no forest land or timberland occurs within or adjacent to the City of Perris. Further, there is no land zoned as forest land or timberland in the City of Perris. **No impact** would occur.

d) As discussed in Section II.c, above, there is no land zoned forest land within the City of Perris. As such, implementation of the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. **No impact** would occur.

e) As discussed in Sections II.a – 2d, above, the Project site is not categorized as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) nor is the site designated as forest land. There is also no Farmland or forestland in the immediate vicinity of the Project site. Therefore, implementation of the project would not result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. **No impact** would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☒	☐	☐	☐

a) The City of Perris is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality within the South Coast Air Basin is under the jurisdiction of the South Coast Air Quality Management District (AQMD) and the California Air Resources Board (CARB). Standards for air quality within the South Coast Air Basin are documented in the South Coast AQMD's Air Quality Management Plan (AQMP). The main purpose of an AQMP is to describe air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area in order to bring the area into compliance with federal and State air quality standards. The South Coast AQMD's 2022 AQMP is based on regional growth forecasts for the Southern California Association of Governments region. Whether the Project would exceed the growth assumptions in the AQMP is, in part, based on projections from local general plans. The City of Perris General Plan land use designation for the Project site is Community Commercial and the Project is consistent with this land use designation.

A project is consistent with the regional AQMP if it does not create new violations of clean air standards, exacerbate any existing violations, or delay a timely attainment of such standards. Construction of the Project would generate exhaust from construction equipment and vehicle trips, fugitive dust from demolition and ground-disturbing activities, and off-gas emissions

from architectural coatings and paving. The Project would also result in the emission of pollutants into the South Coast Air Basin during Project operation from vehicle trips and stationary sources. The emission of pollutants resulting from construction (short-term) and operation (long-term) of the Project have the potential to affect implementation of the AQMP. This is a **potentially significant impact**. Therefore, any potential impacts that the Project may have on the attainment of regional air quality objectives will be evaluated in an EIR.

b) The South Coast Basin is designated under the National Ambient Air Quality Standards by the U.S. Environmental Protection Agency as an extreme nonattainment area for ozone, a serious maintenance area for respirable particulate matter (PM_{10}), and a moderate nonattainment area for fine inhalable particulate matter ($PM_{2.5}$). Under the California Ambient Air Quality Standards, the South Coast Basin is designated as a nonattainment area for these pollutants.

Air quality impacts are divided into short-term construction and long-term operational impacts. Short-term impacts are the result of demolition, site preparation, grading, and/or construction operations. Long-term impacts are associated with the long-term operations of a project. Implementation of the Project may increase existing levels of criteria air pollutants and contribute to their nonattainment status in the South Coast Air Basin during both construction and operational activities. This is a **potentially significant impact**. Thus, an air quality analysis will be prepared to determine if the Project would result in a cumulatively considerable net increase in any criteria air pollutant. This topic will be addressed in an EIR.

c) Development of the Project has the potential to expose sensitive receptors near the Project site to emissions from construction equipment and grading activity, mobile sources (i.e., trucks and car exhaust), cooking equipment, and the dispensing of gasoline. The nearest sensitive receptors are the existing homes located to the immediate east and south of the Project site. Due to the presence of sensitive receptors in the immediate vicinity, there is the potential to expose nearby sensitive receptors to substantial pollutant concentrations. This is a **potentially significant impact**. Therefore, this topic will be further evaluated in an EIR.

d) Development of the Project has the potential to expose residential receptors near the Project site to odors from construction equipment, cooking equipment, and the dispensing of gasoline. The nearest residential neighborhood with a substantial number of people is located to the immediate east and south of the Project site. Due to the presence of the residential neighborhood in the immediate vicinity, there is the potential for the Project to generate odors affecting a substantial number of people. This is a **potentially significant impact**. Therefore, this topic will be further evaluated in an EIR.

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
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?	☐	☐	☐	☒

The material presented herein is based in part on the *Perris Retail Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis for the Proposed Retail Site Located within Assessor Parcel Number (APN) 300-260-001 in the City of Perris, Riverside County, California,* prepared by ELMT Consulting, Inc., October 2023 (Appendix A).

Methodology

Literature Review

Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project were determined through a query of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database Rarefind 5, the California Native Plant Society Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, U.S. Fish and Wildlife Service (USFWS) species listings, and species covered within the MSHCP and associated technical documents.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the Project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the Project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- U.S. Environmental Protection Agency (EPA) Water Program "My Waters" data layers;
- Google Earth Pro historic aerial imagery (1994-2023);
- U.S. Department of Agriculture Natural Resource Conservation Service Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- USFWS National Wetlands Inventory;

- Habitat Conservation Plan for the Stephen's Kangaroo Rat in Western Riverside County California (Stephen's Kangaroo Rat Habitat Conservation Plan);
- Western Riverside County Regional Conservation Authority MSHCP Information Map; and
- 2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the Project site. The California Natural Diversity Database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the Project site.

Field Investigation

Following the literature review, an ELMT biologist inventoried and evaluated the condition of the habitat within the Project site on June 19, 2023. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field survey.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field survey and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field survey using the U.S. Department of Agriculture Natural Resource Conservation Service Soil Survey for Western Riverside Area, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the Project site has undergone.

Plant Communities

Plant communities were mapped using 7.5-minute U.S. Geological Survey topographic base maps and aerial photography. The plant communities were delineated on an aerial photograph, classified in accordance with those described in the MSHCP, and then digitized into Geographic Information System Arcview. The Arcview application was used to compute the area of each plant community in acres.

Plants
Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less-familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. In this document, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife
Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America, A Field Guide to Western Reptiles and Amphibians, and A Field Guide to Mammals of North America. Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this document (first reference only).

Jurisdictional Drainages and Wetlands
Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, or CDFW. In general, surface drainage features indicated as blue-line streams on U.S. Geological Survey maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory and EPA Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the Project site.

a) The Project site is located in a primarily developed portion of the City of Perris. The site is bounded to the north by Placentia Avenue with residential developments beyond; to the east and south by residential development; and to the west by North Perris Boulevard with commercial development and undeveloped, vacant land beyond. The site itself supports undeveloped, vacant land and portions of Perris Boulevard and Placentia Avenue. Historically, land uses within and surrounding the project site supported large-scale agricultural operations, some of which persist in a limited capacity. According to historic aerial photographs, the site supported some development related to adjacent agricultural operations until at least 1985, with the site remaining in its current state since at least 1997.

Vegetation. Due to historic and existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the Project site. The site supports one (1) plant community: non-native grassland; in addition, the site supports two (2)

land cover types that would be classified as disturbed and developed. No native plant communities will be impacted from implementation of the proposed Project.
A non-native grassland plant community is supported throughout the site, consolidated mainly to site boundaries that are impacted by routine weed abatement activities. This plant community is dominated by non-native grasses such as slim oat (*Avena barbata*) and soft chess (*Bromus hordaceus*) and supports primarily non-native weedy/early successional species. Common plant species observed in the non-native grassland supported on-site include Spanish lotus (*Acmispon americanus*), nettleleaf goosefoot (*Chenopodium murale*), dove weed (*Croton setiger*), cryptantha species (*Cryptantha* sp.), flax-leaved horseweed (*Erigeron bonariensis*), mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), stinknet (*Oncosiphon pilulifer*), prostrate knotweed (*Polygonum aviculare*), Russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus barbatus*), and puncture vine (*Tribulis terrestris*).

Disturbed land is present throughout the site and supports the same species observed in the non-native grassland plant community but lacks regular dominance of any single group of species. Developed land is present along the northern and western boundaries of the site where site boundaries overlap with existing portions of Placentia Avenue and Perris Boulevard. Developed areas support non-native ornamental landscaping and are maintained to be free of incidental species.

Wildlife. Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the Project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

Fish
The MSHCP does not identify any covered or special-status fish species as potentially occurring within the Project site. Further, no fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the site. Therefore, no fish are expected to occur and are presumed to be absent.

Amphibians
The MSHCP does not identify any covered or special-status amphibian species as potentially occurring within the Project site. Further, no amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the site. Therefore, no amphibians are expected to occur.

Reptiles
The MSHCP does not identify any covered or special-status reptilian species as potentially occurring within the Project site. The site provides a limited amount of habitat for reptile species adapted to a high degree of human disturbance associated with the on-site weed

abatement activities and development. The only reptilian species observed on site was Great Basin fence lizard (*Sceloporus occidentalis longipes*). Additional common reptilian species that could be expected to occur on-site include common side-blotched lizard (*Uta stansburiana elegans*). Due to the high level of anthropogenic disturbances and surrounding development, no special-status reptilian species are expected to occur within Project site.

Birds

The Project site provides moderate foraging habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field survey include Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Eurasian collared dove (*Streptopelia decaocto*), and mourning dove (*Zenaida macroura*).

Mammals

The MSHCP does not identify any covered or special-status mammalian species as potentially occurring within the Project site. Mammalian species detected include coyote (*Canis latrans*), pocket gopher (*Thomomys bottae*), and domestic cat (*Felis catus*). Other common mammalian species that could be expected to occur include possum (Didelphis virginiana) and raccoon (Procyon lotor). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices).

Nesting Birds and Raptors

No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted during breeding season (i.e., generally February 1st - August 31st although the nesting season may be extended due to weather and drought conditions). Although subjected to routine disturbance, the plant communities and land cover types supported on-site, including ornamental vegetation along Perris Boulevard, have the potential to provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs during the nesting season, a pre-construction clearance survey for nesting birds would be conducted prior to the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. See Mitigation Measure BIO-1.

> **Mitigation Measure BIO-1.** To avoid violation of the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the Project shall be avoided, to the greatest extent

possible, during the nesting season of potentially occurring native and migratory bird species.

If site-preparation activities are proposed during the nesting/breeding season, the Project proponent shall retain a qualified biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the Project to determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within the construction zone. The nest surveys shall include the Project site and adjacent areas where project activities have the potential to cause nest failure. The survey results shall be provided to the City's Planning Division. The Project proponent shall adhere to the following:

1. The Project proponent shall retain a biologist (Designated Biologist) experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

2. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures within the Project site and an appropriate buffer of 500 feet of an active listed species or raptor nests, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests. The survey duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.

If no nesting birds are observed during the survey, site preparation and construction activities may be conducted during the nesting/breeding season. However, if active nests (including nesting raptors) are located within the survey area, then the Designated Biologist shall immediately establish a conservative avoidance buffer surrounding the nest(s) based on their best professional judgement and experience. The Designated Biologist shall monitor the nest(s) at the onset of Project activities and at the onset of any changes in such Project activities (e.g., increase in number or type of equipment, change in equipment usage) to determine the efficacy of the buffer. If the Designated Biologist determines that such Project activities may be causing an adverse reaction, the Designated Biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers shall be halted until the nesting

effort is finished (i.e., the juveniles are surviving independent from the nest). The Designated Biologist shall review and verify compliance with these nesting avoidance buffers and shall verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to City of Perris Planning Division for mitigation monitoring compliance record keeping.

With implementation of Mitigation Measure BIO-1, the potential impact to nesting birds and raptors would be **less than significant with mitigation incorporated**.

Special-Status Biological Resources

The California Natural Diversity Database was queried for reported locations of special-status plant and wildlife species as well as natural communities of special concern within the Perris U.S. Geological Survey 7.5-minute quadrangle. A search of published records within this quadrangle was conducted using the California Natural Diversity Database Rarefind 5 online software and the CDFW Biogeographic Information and Observation System database and the California Native Plant Society Inventory of Rare and Endangered Plants of California that supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the Project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified 15 special-status plant species and 75 special-status wildlife species within the Perris quadrangle. No special-status habitats were identified as having the potential to occur. Special-status plant and wildlife species were evaluated for their potential to occur within the Project site based on habitat requirements, availability and quality of suitable habitat, and known distributions.

Special-Status Plants

According to the California Natural Diversity Database and the California Native Plant Society, 15 special-status plant species have been recorded within the Perris quadrangle. No special-status plants were observed within the Project site during the field investigation. The Project site is heavily disturbed and no longer supports native plant communities that have the potential to provide suitable habitat for special-status plant species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the Project site does not have the potential to support any of the special-status plant species known to occur in the vicinity and all are presumed to be absent.

Special-Status Wildlife

According to the California Natural Diversity Database, 75 special-status wildlife species have been reported within the Perris quadrangle. No special-status wildlife species were observed on-site during the field investigation. Based on habitat requirements for specific species and the

availability and quality of on-site habitats, it was determined that the Project site has a moderate potential to support Costa's hummingbird (*Calypte costae*); and a low potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), and California horned lark (*Eremophila alpestris actia*).

None of the aforementioned species are federally or state listed as endangered or threatened. Of the aforementioned species, only Costa's hummingbird and California horned lark might be expected to nest on-site. Cooper's hawk is not expected to nest on-site due to the lack of suitable nesting opportunities and sharp-shinned hawk is not expected to nest on-site due to the site occurring outside of the geographic breeding range of this species.

To ensure that potential impacts to special-status avian species do not occur from implementation of the proposed Project, a pre-construction nesting bird survey shall be conducted prior to ground disturbance as discussed above. With implementation of the pre-construction nesting bird survey required by Mitigation Measure BIO-1, potential impacts to special-status avian species would be less than significant.

Burrowing Owl. The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground. Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

No burrowing owls or recent sign (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. Based on the results of the field investigation, it was determined that the Project site does not have potential to support burrowing owl and focused surveys are not recommended. However, out of an abundance of caution, a preconstruction burrowing owl survey shall be conducted prior to development to ensure burrowing owls remain absent from the Project site as specified in Mitigation Measure BIO-2.

> **Mitigation Measure BIO-2.** The Project proponent shall retain a qualified biologist to conduct a pre-construction survey for resident burrowing owls within 30 days prior to commencement of grading and construction activities on the Project site. The survey shall include the Project site and all suitable burrowing owl habitat within a 500-foot buffer. The results of the survey shall be submitted to the City of Perris Planning Division prior to obtaining a grading permit. In addition, if burrowing owls are

observed during the nesting bird survey (Mitigation Measure BIO-1), to be conducted within three days prior to ground disturbance or vegetation clearance, the observation shall be reported to the Wildlife Agencies. If ground disturbing activities in these areas are delayed or suspended for more than 30 days after the pre-construction survey, the area shall be resurveyed for owls. The pre-construction survey and any relocation activity shall be conducted in accordance with the current Burrowing Owl Survey Instructions for the Western Riverside MSHCP.

If burrowing owl are detected, the CDFW shall be sent written notification by the City, within three days of detection of burrowing owls. If active nests are identified during the pre-construction survey, the nests shall be avoided and the qualified biologist and Project applicant shall coordinate with the City of Perris Planning Department, the US Fish and Wildlife Service, and the CDFW to develop a Burrowing Owl Plan to be approved by the City in consultation with the CDFW and the US Fish and Wildlife Service prior to commencing Project activities. The Burrowing Owl Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and MSHCP. The Burrowing Owl Plan shall describe proposed avoidance, minimization, relocation, and monitoring as applicable. The Burrowing Owl Plan shall include the number and location of occupied burrow sites and details on proposed buffers if avoiding the burrowing owls and/or information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls may also be required in the Burrowing Owl Plan. The Permittee shall implement the Burrowing Owl Plan following CDFW and US Fish and Wildlife Service review and concurrence. A final letter report shall be prepared by the qualified biologist documenting the results of the Burrowing Owl Plan. The letter shall be submitted to the CDFW prior to the start of Project activities. When a qualified biologist determines that burrowing owls are no longer occupying the Project site per the criteria in the Burrowing Owl Plan, Project activities may begin.

If burrowing owls occupy the Project site after Project activities have started, then construction activities shall be halted immediately. The Project proponent shall notify the City and the City shall notify the CDFW and the US Fish and Wildlife Service within 48 hours of detection. A Burrowing Owl Plan, as detailed above, shall be implemented.

With implementation of Mitigation Measure BIO-2, the potential impact to special-status biological resources would be **less than significant with mitigation incorporated**.

Critical Habitat. Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species.

Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a Clean Water Act Permit from the U.S. Army Corps of Engineers). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The Project site is not located with federally designated Critical Habitat. The closest designated Critical Habitat is located approximately 2.9 miles to the southeast of the site for spreading navarretia (*Navarretia fossalis*) along the San Jacinto River. Therefore, the loss or adverse modification of Critical Habitat would not occur as a result of the proposed Project and consultation with the USFWS would not be required for implementation of the proposed Project.

Stephen's Kangaroo Rat Habitat Conservation Plan. Separate from the consistency review with the policies of the MSHCP, Riverside County established a boundary in 1996 for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and state threatened species. The Stephens' kangaroo rat is protected under the Stephens' Kangaroo Rat Habitat Conservation Plan (County Ordinance No. 663.10; SKR HCP). As described in the MSHCP Implementation Agreement, a Section 10(a) Permit and California Fish and Game Code Section 2081 Management Authorization were issued to the Riverside County Habitat Conservation Agency for the Long-Term Stephen's Kangaroo Rat Habitat Conservation Plan and was approved by the USFWS and CDFW in August 1990. Relevant terms of the Stephen's Kangaroo Rat Habitat Conservation Plan have been incorporated into the MSHCP and its Implementation Agreement. The Stephen's Kangaroo Rat Habitat Conservation Plan will continue to be implemented as a separate habitat conservation plan; however, to provide the greatest conservation for the largest number of Covered Species, the Core Reserves established by the Stephen's Kangaroo Rat Habitat Conservation Plan are managed as part of the MSHCP Conservation Area consistent with the Stephen's Kangaroo Rat Habitat Conservation Plan. Actions shall not be taken as part of the implementation of the Stephen's Kangaroo Rat Habitat Conservation Plan that will significantly affect other Covered Species. Take of Stephens' kangaroo rat outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.

The Project site is located within the Mitigation Fee Area of the Stephen's Kangaroo Rat Habitat Conservation Plan. Therefore, the Project applicant would be required to pay the Stephen's Kangaroo Rat Habitat Conservation Plan Mitigation Fee prior to development of the Project site.

b and c) No jurisdictional drainage and/or wetland features were observed within the Project site during the field investigation. Further, no blueline streams have been recorded within the Project site. **No impact** to riparian habitat or state or federally protected wetlands would occur with Project implementation.

d) Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The Project site has not been identified as occurring in a wildlife corridor or linkage. The proposed Project would be confined to existing areas that have been heavily disturbed and are isolated from regional wildlife corridors and linkages. In addition, there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the site to a recognized wildlife corridor or linkage. As such, implementation of the proposed Project is not expected to impact wildlife movement opportunities. Therefore, **no impact** to wildlife corridors or linkages is not expected to occur.

e) The City of Perris Municipal Code Section 19.71.050 provides regulations for the protection, preservation, and maintenance of significant tree resources and establishes minimum mitigation measures for trees removed as a result of new development. No trees are located within the Project site. Therefore, **no impact** to protected tree species would occur under this threshold.

f) The Project site is located within the Mead Valley Area Plan of the MSHCP but is not located within any Criteria Cells or MSHCP Conservation Areas (refer to Exhibit 7, *MSHCP Criteria Area*, in Attachment A). Further, the Project site is not located within any designated species survey areas as depicted in Figures 6-4 within Section 6.3.2 of the MSHCP.

Since the City is a permittee under the MSHCP and, while the Project is not specifically identified as a Covered Activity under Section 7.1 of the MSHCP, public and private developments that are outside of Criteria Areas and Public/Quasi-Public (PQP) Lands are permitted under the MSHCP, subject to consistency with MSHCP policies that apply to area outside of Criteria Areas. As such, to achieve coverage, the Project must be consistent with the following policies of the MSHCP:

- The policies for the protection of species associated with Riparian/Riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP;
- The policies for the protection of Narrow Endemic Plant Species as set forth in Section 6.1.3 of the MSHCP;

- The requirements for conducting additional surveys as set forth in Section 6.3.2 of the MSHCP;
- Guidelines pertaining to the Urban/Wildlands Interface intended to address indirect effects associated with locating Development in proximity to the MSHCP Conservation Area as detailed in Section 6.1.4 of the MSHCP.

Riparian/Riverine Areas

As identified in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools,* riparian/riverine areas are defined as areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. If impacts to riparian/riverine habitat cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be developed to address the replacement of lost functions of habitats in regard to the listed species. This assessment is independent from considerations given to "waters of the U.S." and "waters of the State" under the Clean Water Act and the California Fish and Game Code.

No jurisdictional drainages, riparian/riverine and/or wetland features were observed within the Project site during the field investigation. Development of the proposed Project would not result in impacts to riparian/riverine habitats and a DBESP would not be required for the loss of riparian/riverine habitat from development of the proposed Project. Therefore, the Project would be consistent with Section 6.1.2 of the MSHCP.

Vernal Pools and Fairy Shrimp Habitat

One of the factors for determining the suitability of the habitat for fairy shrimp would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. These astatic pools are typically characterized as vernal pools. More specifically, vernal pools are seasonal wetlands that occur in depression areas without a continual source of water. They have wetland indicators of all 3 parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season. The determination that an area exhibits vernal pool characteristics and the definition of the watershed supporting vernal pool hydrology is made on a case-by-case basis. Such determinations should be considered the length of time the areas exhibit upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. The seasonal hydrology of vernal pools provides for a unique environment, which supports plants and invertebrates specifically adapted to a regime of winter inundation, followed by an extended period when the pool soils are dry.

Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of

Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp.

The MSHCP lists two general classes of soils known to be associated with listed and special-status plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with listed and special-status species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the special-status plant or wildlife species associated with vernal pools can occur within the Project site. None of these soils have been documented within the Project site.

A review of recent and historic aerial photographs (1994-2023) of the Project site did not provide visual evidence of an astatic or vernal pool conditions within the Project site. No ponding was observed, further supporting the fact that the drainage patterns currently occurring on the Project site do not follow hydrologic regimes needed for vernal pools. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring within the Project site. Therefore, the Project would be consistent with Section 6.1.2 of the MSHCP.

Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the Western Riverside County Regional Conservation Authority MSHCP Information Map query and review of the MSHCP, it was determined that the Project site is not located within the designated survey area for Narrow Endemic Plant Species. Through the field investigation, it was determined that the Project site does not provide suitable habitat for any of the Narrow Endemic Plant Species listed under Section 6.1.3 of the MSHCP, and, therefore, the Project would be consistent with Section 6.1.3 of the MSHCP. No additional surveys or analysis is required.

Additional Survey Needs and Procedures

In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional surveys may be needed for certain species in order to achieve coverage for these species. The query of the Western Riverside County Regional Conservation Authority MSHCP Information Map and review of the MSHCP determined that the Project site is not located

within any designated survey areas and no further surveys related for Section 6.3.2 species are required.

Urban/Wildlands Interface Guidelines
Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface,* is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The Urban/Wildlife Interface Guidelines are intended to ensure that indirect project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The Project site is not located within or immediately adjacent to any Criteria Cells, corridors, or linkages. The urban/Wildlands Interface Guidelines do not apply to the proposed Project, and, therefore, the Project would be consistent with Section 6.1.4 of the MSHCP.

The proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **No impact** would occur under this threshold.

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

The material presented herein is based on the *Cultural Resources Investigation in Support of the Perris Market Place Project, City of Perris, Riverside County, California*, prepared by PaleoWest, October 2023 (Appendix B).

The cultural resource investigation of the Project area included background research, communication with the Native American Heritage Commission (NAHC) and interested Native American tribal groups, and a pedestrian survey of the Project area. The purpose of the

investigation was to determine the potential for the Project to impact archaeological and historical resources under CEQA.

On August 14, 2023, a literature review and records search were conducted at the Eastern Information Center of the California Historical Resource Information System, housed at the University of California, Riverside. This inventory effort included the Project area and a one mile radius around the Project area, collectively termed the Project study area. The objective of this records search was to identify prehistoric or historical cultural resources that have been previously recorded within the study area during prior cultural resource investigations.

As part of the cultural resources inventory, PaleoWest staff also examined historical maps and aerial images to characterize the developmental history of the Project area and surrounding area. The records search results show that 37 previous investigations have been conducted and documented within the Project study area since 1979. Four studies encompass or intersect the Project area. Thus, it appears that the Project area in its entirety has been previously inventoried for cultural resources. Eight historic-era cultural resources have been previously documented within the Project study area. These resources include one archaeological site and seven built-environment resources. No prehistoric resources have been documented within one mile of the Project area. None of the previously documented historic-era resources are within the Project area.

Additional sources consulted during the cultural resource literature and data review include the National Register of Historic Places, the Office of Historic Preservation Archaeological Determinations of Eligibility, and the Office of Historic Preservation Built Environment Resources Directory. There are no listed cultural resources recorded within the Project area or within one mile of the Project area.

PaleoWest conducted a pedestrian survey of the proposed Project area on September 22, 2023. No archaeological or built-environment resources were identified during the survey. However, an examination of topographic and historical aerial maps indicates that the Project site was developed by the early 1940s and contained nine buildings and a track or riding ring. These buildings and structures appeared to have been demolished by 1997 and the area was subsequently graded. No cultural resources were identified in the Project area during the survey.

a) An examination of topographic and historical aerial maps indicates that the Project site was developed by the early 1940s and contained nine buildings and a track or riding ring. These buildings and structures appeared to have been demolished by 1997 and the area was subsequently graded. No historic or built-environment resources were identified during the survey of the Project area. Although no evidence of the former development is present on the surface of the Project site, ground-disturbing activities have the potential to impact unknown buried archaeological resources within the Project area. With implementation of Mitigation Measure CUL-1, this potential impact would be **less than significant with mitigation incorporated**.

Mitigation Measure CUL-1. Prior to the issuance of grading permits, the Project proponent/developer shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeology (U.S. Department of Interior, 2012; Registered Professional Archaeologist preferred). The primary task of the consulting archaeologist shall be to monitor the initial ground-disturbing activities at both the Project site and any off-site Project-related improvement areas for the identification of any previously unknown archaeological and/or cultural resources. Selection of the archaeologist shall be subject to the approval of the City of Perris Director of Development Services and no ground-disturbing activities shall occur at the Project site or within the off-site Project improvement areas until the archaeologist has been approved by the City.

The archaeologist shall be responsible for monitoring ground-disturbing activities, maintaining daily field notes and a photographic record, and for reporting all finds to the developer and the City of Perris in a timely manner. The archaeologist shall be prepared and equipped to record and salvage cultural resources that may be unearthed during ground-disturbing activities and shall be empowered to temporarily halt or divert ground-disturbing equipment to allow time for the recording and removal of the resources.

The Project proponent/developer shall also enter into an agreement with either the Pechanga Band of Indians or the Soboba Band of Luiseño Indians for a Native American tribal representative (observer/monitor) to work along with the consulting archaeologist. This tribal representative will assist in the identification of Native American resources and will act as a representative between the City, the Project proponent/developer, and the Native American Tribal Cultural Resources Department. The Native American tribal representative shall be on-site during all ground-disturbing of each portion of the Project site including clearing, grubbing, tree removals, grading, trenching, etc. The Native American tribal representative should be on-site any time the consulting archaeologist is required to be on-site. Working with the consulting archaeologist, the Native American representative shall have the authority to halt, redirect, or divert any activities in areas where the identification, recording, or recovery of Native American resources are on-going.

The agreement between the proponent/developer and the Native American tribe shall include, but not be limited to:

- An agreement that artifacts will be reburied on-site and in an area of permanent protection;
- Reburial shall not occur until all cataloging and basic recordation have been completed by the consulting archaeologist;
- Native American artifacts that cannot be avoided or relocated within the Project site shall be prepared for curation at an accredited curation facility in Riverside County

that meets federal standards (per 36 CFR Part 79) and available to archaeologists/researchers for further study; and

- The Project archaeologist shall deliver the Native American artifacts, including title, to the identified curation facility within a reasonable amount of time, along with applicable fees for permanent curation.

The Project proponent/developer shall submit a fully executed copy of the agreement to the City of Perris Planning Division to ensure compliance with this condition of approval. Upon verification, the City of Perris Planning Division shall clear this condition. This agreement shall not modify any condition of approval or mitigation measure.

In the event that archaeological resources are discovered at the Project site or within the off-site Project improvement areas, the handling of the discovered resource(s) will differ, depending on the nature of the find. Consistent with California Public Resources Code Section 21083.2(b) and Assembly Bill 52 (Chapter 532, Statutes of 2014), avoidance shall be the preferred method of preservation for Native American/tribal cultural/archaeological resources. However, it is understood that all artifacts, with the exception of human remains and related grave goods or sacred/ceremonial/religious objects, belong to the property owner. The property owner shall commit to the relinquishing and curation of all artifacts identified as being of Native American origin. All artifacts, Native American or otherwise, discovered during the monitoring program shall be recorded and inventoried by the consulting archaeologist.

If any Native American artifacts are identified when the Native American tribal representative is not present, all reasonable measures shall be taken to protect the resource(s) in situ and the City Planning Division and Native American tribal representative will be notified. The designated Native American tribal representative shall be given ample time to examine the find. If the find is determined to be of sacred or religious value, the Native American tribal representative will work with the City and Project archaeologist to protect the resource in accordance with tribal requirements. All analysis shall be undertaking in a manner that avoids destruction or other adverse impacts.

In the event that human remains are discovered at the Project site or within the off-site Project improvement areas, Mitigation Measure CUL-2 shall immediately apply and all items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

Non-Native American artifacts shall be inventoried, assessed, and analyzed for cultural affiliation, personal affiliation (prior ownership), function, and temporal placement. Subsequent to analysis and reporting, these artifacts shall be subjected to curation, as deemed appropriate, or returned to the property owner.

Once grading activities have ceased and/or the archaeologist, in consultation with the designated Native American tribal representative, determines that monitoring is no longer warranted, monitoring activities can be discontinued following notification to the City of Perris Planning Division.

A report of findings, including an itemized inventory of artifacts, shall be prepared upon completion of the tasks outlined above. The report shall include all data outlined by the Office of Historic Preservation guidelines, including a conclusion of the significance of all recovered, relocated, and reburied artifacts. A copy of the report shall also be filed with the City of Perris Planning Division, the University of California, Riverside, Eastern Information Center and the Native American tribe(s) involved with the Project.

b) As part of the cultural resource investigation of the Project area PaleoWest contacted the Native American Heritage Commission (NAHC) on August 18, 2023, for a review of the Sacred Lands File. The objective of the Sacred Lands File search was to determine if the NAHC had any knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the Project area. The NAHC responded on October 3, 2023, stating the results were positive and provided a list of Native American Tribes to contact. In anticipation of the results, 21 individuals representing 14 Native American groups were contacted requesting information regarding Native American cultural resource issues related to the proposed Project. PaleoWest sent outreach letters to tribal contacts on August 25, 2023. Individuals contacted were selected based on previous NAHC contact lists for a recent project within the same region and were identical to the list provided by the NAHC. These letters were followed up by phone calls to individuals who had not responded on October 3, 2023.

To date, the following six responses have been received as a result of the Native American outreach efforts conducted for the Project (Appendix A of Appendix B).

- The Agua Caliente Band of Cahuilla Indians sent an email requesting the following documentation related to the Project:
    - A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.
    - A copy of the records search with associated survey reports and site records from the information center.
    - Copies of any cultural resource documentation (report and site records) generated in connection with this project.
- The EPA Department of Los Coyotes Band of Cahuilla and Cupeño Indians responded via phone on October 3, 2023, stating they have reviewed the outreach letter, and they have no further comments.
- The Pechanga Band of Indians sent an email requesting the following documentation related to the Project:

  - Notification once the Project begins the entitlement process, if it has not already;
  - Copies of all applicable archaeological reports, site records, proposed grading plans and environmental documents (EA/IS/MND/EIR, etc);
  - Government-to-government consultation with the Lead Agency; and
  - The Tribe believes that monitoring by a Riverside County qualified archaeologist and a professional Pechanga Tribal Monitor may be required during earthmoving activities. Therefore, the Tribe reserves its right to make additional comments and recommendations once the environmental documents have been received and fully reviewed.
  - In the event that subsurface cultural resources are identified, the Tribe requests consultation with the Project proponent and Lead Agency regarding the treatment and disposition of all artifacts.
- Rincon Band of Luiseño Indians sent an email stating that the Project is within the Traditional Use Area of the Luiseño people and within the Tribe's specific Area of Historic Interest and as such, the Rincon Band is traditionally and culturally affiliated to the project area. The Tribe, however, does not have cultural resource information to share, and requested a final copy of the report.
- The Soboba Band of Luiseño Indians responded via phone on October 3, 2023, stating that the entire area of Perris has numerous village sites that have been identified and the Tribe has significant information to share regarding the area. The Soboba are more than willing to disclose the significant information they have to the agency during consultation.
- Torres-Martinez Desert Cahuilla Indians responded via phone on October 3, 2023,stating that the Tribe does not have any comments or concerns for the City of Perris.

Although no archaeological resources were identified in the Project area during the survey, ground-disturbing activities have the potential to impact unknown buried archaeological resources in the Project area. With implementation of Mitigation Measure CUL-1, identified above, this potential impact would be **less than significant with mitigation incorporated**.

c) The Project site has been previously disturbed, as described above, and has not been previously used as a cemetery. It is not anticipated that implementation of the proposed Project would result in the disturbance of human remains. However, there is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. If human remains are discovered during any phase of construction, including disarticulated or cremated remains, all ground-disturbing activities must cease within 100 feet of the remains and the County Coroner and the Lead Agency (City of Perris) must be immediately notified.

California State Health and Safety Code §7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and Public Resources Code (PRC) § 5097.98. If the County Coroner

determines that the remains are Native American, the NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. These requirements are reflected in Mitigation Measure CUL-2. With implementation of Mitigation Measure CUL-2, this potential impact would be **less than significant with mitigation incorporated**.

> **Mitigation Measure CUL-2:** In the event that human remains (or remains that may be human) are discovered at the Project site or within the off-site Project improvement areas during ground-disturbing activities, the construction contractors, Project archaeologist, and/or designated Native American tribal representative shall immediately stop all activities within 100 feet of the find. The Project proponent shall then inform the Riverside County Coroner and the City of Perris Planning Division immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b).
>
> If the coroner determines that the remains are of Native American origin, the coroner would notify the NAHC, which will identify the "Most Likely Descendent" (MLD). Despite the affiliation with any Native American tribal representative(s) at the site, the NAHC's identification of the MLD will stand. The MLD shall be granted access to inspect the site of the discovery of Native American human remains and may recommend to the Project proponent means for treatment or disposition, with appropriate dignity of the human remains and any associated grave goods. The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains will be determined in consultation between the Project proponent and the MLD. In the event that there is disagreement regarding the disposition of the remains, State law will apply and median with the NAHC will make the applicable determination (see Public Resources Code Section 5097.98I and 5097.94(k)).
>
> The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations shall be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings shall be filed with the Eastern Information Center.

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

a) During construction, the Project would temporarily consume energy for the operation of construction equipment and vehicles. Standard methods of earth moving, excavations, building construction, and paving are planned. The proposed construction activities do not include methods of construction which would result in inefficient or unnecessary use of energy resources. For operational energy use, the project would be required to meet CCR Title 24 building energy and California Green Building (CALGreen) Code standards. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space or water heating) results in greenhouse gas (GHG) emissions. The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The 2022 Title 24 standards went into effect on January 1, 2023. The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards—the energy budgets—that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

CALGreen (CCR Title 24, Part 11) is a code with mandatory requirements for all residential and nonresidential buildings (including industrial and commercial buildings) for which no other state agency has authority to adopt green building standards. The current 2022 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2023. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the

Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. CALGreen contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more.

Table 1 below shows estimated gasoline demand for construction workers. Table 2 shows diesel fuel demand for construction equipment. All fuel calculations are based on the total Carbon Dioxide Equivalent (CO_2e) value calculated for each construction phase and vehicle miles traveled (VMT) using the California Emission Estimator Model (CalEEMod) version 2022.1. Data are reported in annual metric tons of CO_2e for the duration of each construction phase. Metric tons are converted to kilogram CO_2e and then divided by a conversion factor used by the U.S. Environmental Protection Agency to estimate gallons of gasoline consumed based on carbon emissions. For the purpose of determining fuel demand, it was assumed that all worker vehicles would be gasoline fueled and all construction equipment would diesel-fueled.

Table 1
Estimated Construction Worker Gasoline Demand

	CO2E MT	Kg CO2e	Gallons
Demolition – 2025	1.9	1,900	214
Site Preparation – 2025	1.06	1,060	120
Grading – 2025	1.81	1,810	204
Building Construction – 2026	43.7	43,700	4,927
Building Construction – 2026	54.3	54,300	6,122
Architectural Coating - 2026	1.72	1,720	194
Paving - 2026	1.77	1,770	200
Total	106.26	106,366	11,981

Table 2
Estimated Construction Equipment Diesel Demand

	CO2E MT	Kg CO2e	Gallons
Demolition – 2025	32.7	32,700	3,212
Site Preparation – 2025	24.1	24,100	2,367
Grading – 2025	26.9	26,900	2,642
Building Construction - 2025	111	111,000	10,903
Building Construction - 2026	140	140,000	13,752
Architectural Coating – 2026	2.73	2,730	268
Paving - 2026	13.8	13,800	1,356
Total	351.23	351,230	34,500

During operation, the project would generate demand for approximately 2,687,021 kilowatt hours (kWh) of electricity and 2,018,831 British Thermal Units (BTU) of natural gas annually. The annual gasoline demand generated by passenger vehicles visiting the site would be approximately 1,434,498 gallons.

Compliance with state Title 24 and CALGreen standards would ensure that the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. No further Project-specific mitigation measures would be required. Implementation of the Project would

not result in wasteful, inefficient, or unnecessary consumption of energy resource that may have a significant impact on the environment. Impacts would be **less than significant** and no mitigation would be required.

b) Several levels of government have implemented regulatory programs in response to reducing GHG emissions, which consequently serve to increase energy efficiency statewide. Multiple state agencies, including CARB, the California Energy Commission, the California Public Utilities Commission, CalRecycle, the California Department of Transportation (Caltrans), and the Department of Water Resources have developed regulatory and incentive programs that promote energy efficiency. Many of the measures are generally beyond the ability of any future development to implement and are implemented by utility providers or manufacturers.

The Project would not conflict with any state or local plans for renewable energy efficiency. The Project would employ standard methods of construction and does not propose to create a Project condition post-construction whereby a greater energy demand, relative to projects of a similar scope would occur. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **No impact** would result from the Project under this threshold.

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

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

Information provided in this section was obtained in part from the *Preliminary Geotechnical Interpretive Report, Proposed Vallarta Supermarkets, Assessor's Parcel Number 300-260-001, Located South of Placentia Avenue and East of Perris Boulevard, City of Perris, Riverside County, California*, prepared by Earth Strata Geotechnical Services, Inc. (May 21, 2024) and included as Appendix C. The *Paleontological Resource Assessment for the Perris Marketplace Project, City of Perris, Riverside County, California*, prepared by Chronicle Heritage (October 6, 2023) is provided as Appendix D.

The purpose of the Preliminary Geotechnical Interpretive Report was to evaluate the nature, distribution, engineering properties, and geologic strata underlying the site with respect to the proposed development, and then provide preliminary grading and foundation design recommendations based on the proposed building plans.

a (i-ii) The City of Perris, like the rest of southern California, is located within a seismically active region near the active margin between the North American and Pacific tectonic plates. The geologic structure of the entire southern California area is dominated by northwest-trending faults associated with the San Andreas Fault system, which accommodates for most of the right lateral movement associated with the relative motion between the Pacific and North American tectonic plates. Known active faults within this system include the Newport-Inglewood, Whittier-Elsinore, San Jacinto and San Andreas Faults.

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties where these zones occur must inform the public regarding the location of these zones. Proposed development plans within earthquake fault zones must be accompanied by a geotechnical report prepared by a qualified geologist describing the likelihood of surface rupture.

No active faults are known to project through the Project site and the Project site is not located within an Alquist-Priolo Earthquake Fault Zone. An active fault is defined by the State of California as having surface displacement within the past 11,000 years or during the Holocene geologic time period. Therefore, **no impact** associated with development within an Alquist-Priolo fault zone would occur at the Project site

As reported, the closest known active fault to the site is the San Jacinto Valley/Casa Loma segment of the San Jacinto Fault Zone which is located approximately 8.2 miles (13.17 kilometers) northeast of the site. During the life of the proposed improvements, the Project will likely experience moderate to occasionally high ground shaking from known faults, as well as background shaking from other seismically active areas of the southern California region.

Design and construction of the project would comply with the International Code Council International Building Code and related California Building Code and other applicable standards. Based on the distance from active faults in the region and implementation of standard engineering practices and design criteria, the Project would not directly or indirectly be exposed to adverse effects related to seismic ground shaking. Implementation of the design and construction recommendations in the *Preliminary Geotechnical Investigation Report* would further minimize impacts related to a seismic event. Potential impacts related to seismic ground shaking would be **less than significant.**

a (iii) Liquefaction typically occurs within the upper 30 feet of the surface, when saturated, loose, fine- to medium-grained soils (sand and silt) are present. Earthquake shaking suddenly increases pressure in the water that fills the pores between soil grains, causing the soil to lose strength and behave as a liquid. When liquefaction occurs, the strength of the soil decreases, reducing the ability of the underlying soil to support foundations for buildings and other structures. The potential for liquefaction and associated adverse effects within the site is considered low, based on the medium dense to very dense very old alluvial-fan deposits which

underlie the site at shallow depths, the cementation of the material and anticipated removal of near-surface potentially compressible soils during site grading activities. Further, the Project site is identified in the City of Perris General Plan Safety Element to be an area of "low generalized liquefaction susceptibility" (City of Perris 2005). Thus, potential impacts related to exposing people or structures to seismic-related ground failure, including liquefaction, would be **less than significant.**

a (iv) The Project site and surrounding area are relatively flat and no slopes are located within or around the Project site. According to the City of Perris General Plan Safety Element, the Project site is not located within an area with high susceptibility to seismically induced landslides and rockfalls (City of Perris 2005). Thus, **no impact** related to landslides as a result of the proposed Project is anticipated.

b) As noted, the Project site and surrounding area is relatively flat; however, earthwork would be required to create the building pads and parking areas. There is the potential for soil erosion or loss of topsoil during construction activities as the ground is cleared and graded. Compliance with South Coast AQMD Rule 403 (Fugitive Dust) would include implementation of soil stabilization measures, such as daily watering. The site is greater than one acre in size and individual improvements would disturb more than one acre; thus, the Project would be subject to a State Water Resources Control Board General Construction Permit during construction to minimize soil erosion. The General Construction Permit would include implementation of the City's standard erosion control practices, such as silt fencing, fiber rolls, and sandbags. Further, the California Building Code requires an erosion control plan prior to issuance of a grading permit as a means to minimize soil erosion to the extent practicable during both construction and operational phases. For additional information, see Section X, *Hydrology and Water Quality*.

With implementation of Best Management Practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP) prepared for the Project, potential soil erosion hazard impacts would be **less than significant.**

c, d) Land subsidence is defined as the sinking or settling of land to a lower level. Causes can include: (1) earth movements; (2) lowering of ground water level; (3) removal of underlying supporting materials by mining or solution of solids, either artificially or from natural causes; (4) compaction caused by wetting (hydro-compaction); (5) oxidation of organic matter in soils; or (6) added load on the land surface. As stated in the *Preliminary Geotechnical Interpretive Report* referenced above, research showed no features generally associated with subsidence directly on the Project site. Based on the composition of the underlying very old alluvial-fan deposits, and lack of onsite faulting and adjacent hillside terrain, the potential for this subsidence is considered very low. Potential site-specific impacts related to subsidence would be **less than significant**.

e) The proposed Project would connect to the existing sewer line located along Perris Boulevard or Placentia Avenue. No septic systems would be installed. **No impact** would occur under this threshold.

f) The City of Perris General Plan Conservation Element (City of Perris, 2005) divides the City into five areas based on their paleontological potential. The Project site is located within Paleontological Sensitivity Area #1, which contains mapped geological units that have been assigned a "high sensitivity," including the older valley alluvial deposits (City of Perris, 2005). Conservation Element Policy IV.A requires that the City of Perris comply with state and federal regulations and ensure preservation of the significant historical, archaeological, and paleontological resources within the City. The three implementation measures for Policy IV.A require that all new construction involving grading require appropriate surveys and necessary site investigations in conjunction with the earliest environmental documents prepared for a project, that in specifically delineated areas shown on the City's paleontological sensitivity map that levels of paleontological monitoring will be required, from full-time monitoring to part-time monitoring in some less-sensitive areas. Finally, the General Plan requires that the City of Perris identify and collect previous surveys of cultural resources, evaluate each resource, and consider preparation of a comprehensive citywide inventory of cultural resources including both prehistoric sites and man-made resources.

A Paleontological Resource Assessment (Chronicle Heritage, October 6, 2023, Appendix E) was prepared for the Project site to determine the potential effect on paleontological resources associated with implementation of the proposed Project. As stated, the Project site is within Paleontological Sensitivity Area 1, which contains mapped geological units that have been assigned a "high sensitivity," including the older valley alluvial deposits. As stated in the Paleontological Resource Assessment, the Project area is entirely underlain by Very old alluvial fan deposits (Qvof) of well-indurated reddish-brown sand from alluvial fans of the early Pleistocene Epoch. Elsewhere in the region, Pleistocene deposits have produced remains of a diverse terrestrial fauna, including ground sloth, deer, mammoth, camel, horse, bison, badger, mole, rabbit, gray fox, coyote, snake.

The paleontological record search conducted at the Western Science Center in Hemet, California, did not produce any fossil localities from within the Project site or a one mile radius. Searches of online databases and other literature produced one fossil locality within three miles.

A field survey of the Project site was conducted on August 3, 2023. The purpose of the field survey was to visually inspect the ground surface for exposed fossils and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. Approximately 50 percent of the central Project site was overgrown by grasses and shrubs. The ground surface along the boundary of the Project site was recently mowed and tilled, which turned up and exposed the soil and underlying sediment. The Project site was inspected by walking 2-meter transects with additional focus paid to areas of exposed sediment. Sediment was a massive, medium brown clay to silt with abundant subangular pebbles. No paleontological resources were observed during the field survey.

However, based on the literature review and museum records search results, and in accordance with the Society of Vertebrate Paleontology sensitivity scale, the Quaternary Very old alluvial fan deposits (Qvof) in the Project site have high paleontological sensitivity because similar deposits have yielded

significant fossils in the vicinity. Due to the presence of fossil localities in the vicinity, Project-related ground disturbance has the potential to impact paleontological resources throughout the Project site. With implementation of Mitigation Measures PAL-1 and PAL-2, this potential impact would be **less than significant with mitigation incorporated**.

MM PAL-1: Paleontological Resource Impact Mitigation Monitoring Program. Prior to the issuance of grading permits, the Project applicant shall submit to and receive approval from the City of Perris Planning Division, a Paleontological Resource Impact Mitigation Monitoring Program (PRIMMP). The PRIMMP shall include the provision of a qualified professional paleontologist (or his or her trained paleontological monitor representative) during any onsite and offsite subsurface excavation. Selection of the paleontologist shall be subject to approval of the City of Perris Planning Manager and no grading activities shall occur at the Project site or within offsite Project improvement areas until the paleontologist has been approved by the City.

Monitoring shall be restricted to undisturbed subsurface areas of older Quaternary alluvium, which might be present below the surface. The paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.

Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage.

A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources.

MM PAL-2: Worker's Environmental Awareness Program (WEAP). Prior to the start of the Project site disturbance activities, all field personnel shall receive a worker's environmental awareness training on paleontological resources. The training shall provide a description of the laws and ordinances protecting fossil resources, the types of fossil resources that may be encountered in the project area, the role of the paleontological monitor, outline steps to follow if a fossil discovery is made, and provide contact information for the project paleontologist. The training shall be developed by the Project paleontologist and can be delivered concurrently with other training, including cultural, biological, safety, et cetera.

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

a) Global climate change is not confined to a particular project area. A typical project does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. GHG emissions are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal.

Implementation of the Project would generate GHG emissions during both construction and operation. During construction, sources of GHG emissions include construction equipment and workers' commutes to and from the site. During operation, the Project would generate GHG emissions from vehicular trips; water, natural gas, and electricity consumption; and solid waste generation. The Project has the potential to generate a substantial increase in GHG emissions. This is a **potentially significant impact**. Therefore, this issue will be further analyzed in an EIR.

b) The State of California, through its Governors and Legislature, has established a comprehensive framework for the substantial reduction of GHG emissions over the next 40-plus years. This will occur primarily through the implementation of Assembly Bill (AB) 32 (2006), Senate Bill (SB) 375 (2008), Executive Order S-3-05 (2005), Executive Order B-30-15 (2015), and SB 32 (2016), which address GHG emissions on a statewide, cumulative basis. The Project would result in an increase in GHG emissions. This is a **potentially significant impact**. Therefore, an EIR will further evaluate the level of GHG emissions produced by the Project and evaluate its consistency with the applicable plans and policies.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact

IX. HAZARDS AND HAZARDOUS MATERIALS - Would the project:

risk of loss, injury, or death involving wildland fires?

Information within this section was in part, obtained from the *Phase I Environmental Site Assessment* prepared by Chubb Global Risk Advisors (November 2, 2022) and included as Appendix E.

a-b) The proposed Project would be comprised of a grocery store, retail buildings, a convenience store with fueling station and four fast-food restaurant buildings. Construction would involve the transport of fuels, lubricants, and various other liquids needed for operation of construction equipment at the site via service trucks. Materials hazardous to humans, wildlife, and sensitive environments would be present during construction of the proposed Project. These materials include fuels, equipment fluids, cleaning solutions and solvents, and lubricants.

Direct impacts to human health and the environment from accidental spills of small amounts of hazardous materials would be minimized by using a fuel/lubricant vendor and absorptive pads and related materials to absorb fluids during fueling activities. This would avoid the need to store hazardous chemicals on-site. State, and local regulations, including those implemented by the California Division of Occupational Safety and Health, Riverside County Department of Public Health and Riverside County Fire Department programs address the regulation and remediation of hazardous materials and hazardous wastes in the County. Methods would be implemented to avoid accidental spills and/or minimize any impact should accidental spills occur. Compliance with requirements that provide safety and control measures for those materials handled on-site, would avoid potentially significant hazards to the public or the environment during construction.

Operation of the proposed Project would involve the use of materials common to all urban development that are labeled hazardous (e.g., solvents and commercial cleansers; petroleum products; and pesticides, fertilizers, and other landscape maintenance materials). There is the potential for routine use, storage or transport of other hazardous materials; however, the precise materials are not known, as the tenants of the proposed retail buildings are not yet defined. Manufacturing and other chemical processing would not occur on-site.

The proposed convenience store and fueling station would require the ongoing use, storage and routine transport of hazardous materials consisting primarily of gasoline and diesel fuel. Individual liquid propane canisters may be available; and thus, stored on-site. Common

cleaning chemicals would also be used on-site similar to those used in other businesses. The fueling center would be designed and operated consistent with state and federal regulations pertaining to the underground storage and dispensation of flammable materials that include the following:

- 2013 California Fire Code Title 24, Part 9 (CFC 8003.1.3.2) Spill Control Requirements;
- California Code of Regulations Title 13, Motor Vehicles Division 1, 2 and 3;
- California Code of Regulations Title 27, Environmental Protection, as applicable
- California Mechanical Code;
- California Code of Regulations, Title 8, Industrial Relations, Chapter 4, Industrial Safety;
- Health and Safety Code, Section 13240 – 1343.6 (California Propane Storage and Handling Safety Act); and
- National Fire Protection Association Code Section 30a.

An increase in the transport of hazardous materials would be limited to areas along selected major transportation corridors, where commercial uses and industrial uses are concentrated. One designated hazardous materials transportation route, Interstate 215, passes through the City of Perris west of the Project site. It is presumed trucks transporting hazardous materials to/from the Project site would use I-215, Placentia Avenue and Perris Boulevard as the primary route of travel. The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). These agencies also govern permitting for hazardous materials transportation. Haulers would be required to comply with regulations and permitting requirements associated with transporting hazardous materials. Compliance with applicable regulations and procedures would reduce potential impacts associated with the transport of hazardous materials to a less than significant level.

With adherence to all applicable regulations pertaining to the construction and operation of a fueling station containing below ground fuel storage tanks, the Project would not emit or release hazardous waste or emissions or otherwise adversely impact public safety through the storage of flammable materials on-site.

With respect to storing hazardous materials, the Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the federal Resource Conservation and Recovery Act and the California Hazardous Waste Control law (Title 22 CFR Chapter 6.5). Both laws impose regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies , including the Riverside County Fire Department. Any hazardous materials stored on-site would be required to comply with regulations referenced above. This would minimize any adverse impacts associated with

the storage of hazardous materials on the project site. Impacts would be **less than significant** under this threshold.

c) The nearest school to the Project site is the Triple Crown Elementary School located at 530 Orange Avenue in the City of Perris. This school is located approximately ½ mile southeast of the Project site. No schools are located within ¼ mile from the site. **No impact** would occur under this threshold.

d) Based on the regulatory agency records search conducted as part of the Phase I Environmental Site Assessment prepared by Chubb Global Risk Advisors (November 2, 2022) and included as Appendix E, the Project site is not on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. **No impact** would occur under this threshold.

e) The Project site is located approximately 1.3 miles south of MARB/IPA and is located within the MARB/IPA Airport Influence Area (AIA) boundary Zone C1: Primary Approach/Departure Zone (per Map MA-1) in the MARB/IPA Airport Land Use Compatibility Plan (November 13, 2014). The site is also located within the area subject to the Final Air Installations Compatible Use Zone (AICUZ) Study for March Air Reserve Base. Prohibited uses within the C1 include children's schools, day care centers, libraries, hospitals, congregate care facilities, hotels/motels, places of assembly, buildings with more than three aboveground habitable floors, noise-sensitive outdoor non-residential uses, critical community infrastructure facilities, and those that are hazards to flight and include physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. The proposed Project does not contain any uses prohibited by the MARB/IPA ALUCP.

Perris Valley Airport is located approximately 5 miles south of the Project site. However, the project site is not located within the area subject to the ALUCP for Perris Valley Airport (Riverside County Airport Land Use Commission 2011).

According to Exhibit MA-5 in the Background Data: March Air Reserve Base/Inland Port Airport and Environs, the Project site is outside the FAR Part 77 Military Outer Horizontal Surface Limits. The Project site is not located beyond the 60 dBA CNEL noise contour shown in Figure 4-2 of the MARB AICUZ (2018). Therefore, noise associated with aircraft operations would not expose people working in the Project area to excessive noise levels.

Potential impacts would be **less than significant** under this threshold.

f) The City of Perris participates in the Riverside County Multiagency Multi-Hazard Functional Plan, which outlines requirements for emergency access and standards for emergency responses. Access to the Project site would be via Perris Boulevard and Placentia Avenue. Project related traffic would not cause a significant increase in traffic operations to the extent that congestion would occur. During construction of the Project, heavy construction vehicles could interfere with emergency response to the site or emergency evacuation procedures in the event of an emergency (e.g., vehicles traveling behind the slow-moving truck). However, such

delays would be brief and infrequent. Moreover, as required in the City's Municipal Code Section 10.12.100, no street shall be closed or partially obstructed, or detours established, without approval of the City's traffic engineer. As a result, potential impacts would be **less than significant** under this threshold.

g) According to the City of Perris General Plan Safety Element, wildfires typically pose minimal threat to people and buildings in urban areas but increasing human encroachment into natural areas increases the likelihood of bodily harm or structural damage. This encroachment occurs in areas called the wildland-urban interface, which is considered an area within the high and very high fire hazard severity zone as defined by the California Department of Forestry and Fire Protection (CalFire). The General Plan Safety Element Wildfire Hazards map shows that the Project site is not located in a Very High Fire Hazard Severity Zone (City of Perris 2022). Therefore, the proposed Project would not expose people or structures to wildland fires. **No impact** would occur under this threshold.

	Potentially Significant Impact	**Less Than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
IX. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surveys, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
(ii) substantially increase the rate or	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY** – Would the project:				
	amount of surface water runoff which would result in flooding on- or off-site?				
(iii)	create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
(iv)	Otherwise impede or redirect flood flows?	☐	☐	☒	☐
d)	In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Information presented in this section is derived in part from the *Preliminary Water Quality Management Plan, Santa Ana Region of Riverside County, Perris Vallarta*, prepared by Ventura Inland Engineering, Inc., August 2023 (Appendix E).

a, c) The Santa Ana Regional Water Quality Control Board sets water quality standards for all ground and surface waters within the Project's region. Water quality standards are defined under the Clean Water Act to include both the beneficial uses of specific water bodies and the levels of water quality that must be met and maintained to protect those water quality objectives. The proposed Project site is located within the Santa Ana Watershed and San Jacinto Sub-Watershed. Runoff from the Project site, discharges into the Perris Valley Storm Channel, which is tributary to the San Jacinto River, Canyon Lake, and Lake Elsinore.

Activities associated with the construction of the proposed Project would include construction activities, which may have the potential to release pollutants (e.g., oil from construction equipment, cleaning solvents, paint) and silt off-site which could impact water quality. Potential water quality impacts associated with the proposed Project would be generally limited to short-

term construction-related erosion and sedimentation. During operation, the discharge of minor amounts of fuels or other pollutants associated with automobiles into storm drains during rain events may occur. The Project would include installation of underground storage tanks and on-site storm drains in compliance with City design standards. Furthermore, the Project applicant has submitted a Preliminary Water Quality Management Plan to illustrate how low impact development Best Management Practices (BMPs) have been incorporated into Project construction and design. The Preliminary Water Quality Management Plan incorporates BMPs in accordance with the California Low Intensity Design BMP Design Handbook and the City's BMP Design Manual to control erosion and protect the quality of surface water runoff.

As required under the National Pollutant Discharge Elimination System (NPDES), a Stormwater Pollution Prevention Plan (SWPPP) would be created specifically for construction of the proposed Project. The SWPPP would address erosion control measures that would be implemented to avoid or minimize erosion impacts to exposed soil associated with construction activities. The SWPPP would include a program of BMPs to provide erosion and sediment control and reduce potential impacts to water quality that may result from construction activities. BMPs would include providing gravel bags and silt fences where applicable. Through compliance with the regulatory requirements of the NPDES Statewide General Construction Permit and on-site drainage facilities, the Project is not expected to violate any water quality standards or waste discharge requirements during construction.

Development of the proposed Project would add impervious surfaces to the site through rooftops, parking, loading areas, and drive aisles. By providing impervious surfaces on the site, less water would percolate into the ground and more surface runoff would be generated. Paved areas and streets would collect dust, soil and other impurities that would then assimilate into surface runoff during rainfall events. The Project would be required to comply with the NPDES permit and Waste Discharge Requirements for Riverside County, of which the City of Perris is a co-permittee.

As stated, the proposed Project incorporates site design, source controls and treatment control BMPs to address storm water runoff as stipulated in the Preliminary Water Quality Management Plan. As designed, stormwater would enter one of two underground infiltration tanks and then percolate down through the bioretention media. Thus, through the BMPs combined with compliance with existing regulations such as the implementation of the Water Quality Management Plan, the proposed Project would not violate water quality standards or waste discharge requirements. Therefore, potential impacts would be **less than significant** under this threshold.

b) The project site is located within the Eastern Municipal Water District (EMWD) service area. The EMWD produces potable groundwater from two management plan areas within the San Jacinto Groundwater Basin. The areas are the West San Jacinto Groundwater Basin Management Plan area (West San Jacinto Basin) and the Hemet/San Jacinto Water Management Plan area (Hemet/San Jacinto Basin). The EMWD also owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water.

These plants provide a source of potable water, protect potable sources of groundwater and support the EMWD's groundwater salinity management program.

Natural recharge to the San Jacinto groundwater basin is primarily from percolation of flows into the San Jacinto River and its tributary streams, with percolation of water stored in Lake Perris as an additional source of recharge. While the majority of the Project site would become impermeable after development, Project design features and BMPs such as the use of impervious or semi-pervious materials and the use of landscaping would facilitate some groundwater recharge and percolation. In addition, due to the proposed Project's small size in relationship to the total size of the San Jacinto Groundwater Basin (approximately 188,000 acres) and implementation of BMPs to be identified in the Project's Water Quality Management Plan, there would not be a substantial effect upon groundwater recharge within the groundwater basin. Furthermore, the Project would rely on domestic water supply, would not require new sources of groundwater sources, and would not substantially deplete groundwater supplies. Therefore, potential impacts would be **less than significant** under this threshold.

c) There are no streams or rivers currently mapped within or adjacent to the Project site. Based on review of historic aerials, drainage on the Project site appears to flow from northwest to southeast. With the exception of landscaped areas, the entire Project site would be impervious, with the site design mimicking the existing drainage patterns that convey flows to the west towards North Perris Boulevard. The Project site would be divided into two drainage areas, with each draining to an underground infiltration tank. In the built condition, the western portion of the site, Drainage Area 1, would drain via overland flow and valley gutter to a proposed storm drain inlet and then into an underground infiltration tank. Similarly, the eastern portion of the site, Drainage Area 2, would drain via overland flow and valley gutter to a proposed storm drain inlet and then into an underground infiltration tank.

The proposed Project would not 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 which would result in substantial erosion or siltation onsite or offsite. Thus, potential impacts would be **less than significant** under this threshold.

d) According to the Safety Element of the City General Plan, the Project site is not located within a Special Flood Hazard Area Inundated by 100-Year Flood Zone. However, the Project site is within the Dam Inundation Area for the Lake Perris Dam (City of Perris 2022). The California Department of Water Resources has developed The Perris Dam Modernization Project, which is intended to make the dam more seismically resilient. The final phase is the construction of an Emergency Release Facility, which will allow for the safe drawdown of lake water surface levels following a seismic event. This final phase of the project is scheduled to begin construction in 2022 (City of Perris 2022). Potential impacts related to dam inundation would be **less than significant**.

The Federal Emergency Management Agency (FEMA) Flood Map Service Center information shows the site is located in Flood Zone X; and thus, located outside the 0.2% Annual Flood

Hazard Flood Zone (see FIRM Map No. 06065C143OH, August 18, 2014). Special Flood Hazard Areas are defined as areas that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The chance for on-site flooding is less than 1 percent; thus, the site is not located within a Special Flood Hazard Area. Seiches are oscillations of the surface of inland bodies of water that vary in period from a few minutes to several hours. Seismic excitations can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The Project site is located approximately 34 miles inland from the Pacific Ocean. The nearest water body is Lake Perris Reservoir which is located approximately 2.8 miles northeast of the site. The Project site is not expected to be affected by either a tsunami or seiche. The Project site is generally flat and not located near any slopes that would be subject to a mudflow hazard. A **less than significant impact** would occur under this threshold.

e) This section provides an evaluation of project consistency with the following plans: Water Quality Control Plan for the West San Jacinto Groundwater Sub-basin and Santa Ana River Basin.

West San Jacinto Groundwater Sub-Basin Management Plan

Implementation of the Project would not have a substantial effect on groundwater recharge within the overlapping Perris North Groundwater Management Zone of the West San Jacinto Groundwater Sub-basin. Under the Sustainable Groundwater Management Act passed in 2014 (California Water Code Section 10729[d]), each high and medium priority basin, as identified by the Department of Water Resources, is required to have a Groundwater Sustainability Agency (GSA) that will be responsible for groundwater management and development of a Groundwater Sustainability Plan (GSP) (DWR 2020a). The San Jacinto Groundwater Basin is a high priority basin (DWR 2019). The Eastern Municipal Water District (EMWD) Board of Directors is the Groundwater Sustainability Agency for the West San Jacinto Groundwater Sub-basin and is responsible for development and implementation of a Groundwater Sustainability Plan. A Groundwater Sustainability Plan was approved in September 2021. The GSP documents basin conditions and basin management will be based on measurable objectives and minimum thresholds defined to prevent significant and unreasonable impacts to the sustainability indicators defined in the Groundwater Sustainability Plan. The Project would not conflict with the plan because new sources of groundwater would not be required to serve the Project.

The Project would be supplied with imported, potable water and recycled water for non-potable water demands and the Project site is not within a groundwater recharge area. Therefore, the Project does not have the potential to conflict or obstruct implementation of a sustainable groundwater management plan and potential impacts would be **less than significant** and no mitigation would be required.

Water Quality Control Plan for the Santa Ana River Basin

The *Water Quality Control Plan for the Santa Ana River Basin* (February 2016) is intended to preserve and enhance water quality and protect the beneficial uses of water bodies in the Santa Ana River watershed. The Basin Plan provides water quality standards for water resources in the Santa Ana River and its watershed and includes an implementation plan to maintain these standards. The standards serve as the basis for the basin's regulatory programs. Basin Plan implementation occurs primarily through issuance of individual Waste Discharge Requirements; discharge prohibitions; water quality certifications; programs for salt management, non-point sources, and storm water; and monitoring and regulatory enforcement actions, as necessary. As discussed herein, the Project would not cause or contribute to the release of polluted stormwater runoff or generate other discharges that could adversely impact water quality within the Santa Ana River. All runoff would be treated and conveyed to the Perris Valley Storm Channel. The Project would not conflict with water quality goals provided in the Santa Ana River Basin Plan

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

a) The proposed Project would result in the development of a new commercial shopping center on a 10.55-acre site zoned Commercial Community. All uses would be allowed with approval of a Conditional Use Permit to allow development of the proposed fast-food restaurants with drive-thru windows and the convenience store/fueling station, and compliance with development criteria in Section 19.30.080 and design criteria in Section 19.030.090 of the Perris Municipal Code. The site is vacant and located adjacent to single-family residential neighborhoods to the north, south and east. The site would be accessed via Placentia Avenue and Perris Boulevard. The Project would not physically divide a community or otherwise cause an adverse land use impact. **No impact** would occur under this threshold.

b) The proposed Project site is located within the City of Perris; thus, land use is guided by both the Perris General Plan and Municipal Code. The proposed Project includes a new grocery store, two retail buildings, a convenience store/fueling station and four fast-food restaurants. With approval of a Conditional Use Permit, the proposed uses would be consistent with the

Community Commercial land use designation. Project consistency with the applicable policies from the City of Perris General Plan that have been adopted for the purpose of avoiding or mitigating an environmental effect is evaluated in Table 3 below. As shown, the Project would be consistent with the policies of the City's General Plan.

Table 3
General Plan Consistency

Policy	Consistency Evaluation
Land Use Element	
Policy II.A: Require new development to pay its full, fair-share of infrastructure costs.	The Project applicant would be required to pay applicable development impact fees (DIFs) pursuant to City Ordinance No. 1182 to mitigate the cost of public facilities required to support the project. Thus, the Project would be consistent with Land Use Element Policy II.A.
Policy II.B: Require new development to include school facilities or pay school impact fees, where appropriate.	The Project applicant would be required to pay school impact fees, as set by the Val Verde Unified School District. Effective July 15, 2024, the fee would be $0.84 per assessed square foot of constructed commercial space. Therefore, the Project would be consistent with Land Use Element Policy II.B.
Policy III.A: Accommodate diversity in the local economy.	The proposed Project would provide commercial development consistent with the General Plan and zoning designations for the site. Further, the project would generate new local tax revenue from the local economy. Therefore, the proposed Project would be consistent with Land Use Element Policy III.A.
Policy V.A: Restrict development in areas at risk of damage due to disasters.	The proposed Project site is not located within an area of significant disaster risk more so than the southern California region as a whole. Therefore, the proposed Project would be consistent with Land Use Element Policy V.A.
Circulation Element	
Policy II.B: Maintain the existing transportation network while providing for future expansion and improvement based on travel demand, and the development of alternative travel modes.	The proposed Project would not involve or require any changes to the existing transportation network within the City of Perris. Additionally, the project applicant would be required to pay the fair-share of costs associated with City-wide roadway network improvements. Further, installation of sidewalks and bike racks at the Project site would support alternative travel modes such that the Project would be consistent with Circulation Element Policy II.B.

Policy III.A: Implement a transportation system that accommodates and is integrated with new and existing development and is consistent with financing capabilities.	The proposed Project would not involve or require any changes to the existing transportation system within the City of Perris. The Project applicant would be responsible for financing street and access driveway improvements and making a fair-share contribution to off-site mitigation requirements. Therefore, the Project would be consistent with Circulation Element Policy III.A
Policy V.A: Provide for safe movement of goods along the street and highway system.	The Project would be located proximal to a designated truck route (i.e., Placentia Avenue). This street would allow for the movement of goods without compromising the circulation or safety of local roads. The Project would be consistent with Circulation Element Policy V.A.
Conservation Element	
Policy II.A: Comply with state and federal regulations to ensure protection and preservation of significant biological resources.	The proposed Project would be consistent with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) upon implementation of the mitigation measures identified in Section IV, Biological Resources. Furthermore, the Project applicant would be required to pay applicable fees pursuant to City's Ordinance No. 1123 to offset incremental impacts to biological resources from Project construction and operation. Therefore, the Project would be consistent with Conservation Element Policy II.A.
Policy III.A: Review all public and private development and construction projects and any other land use plans or activities within the MSHCP area, in accordance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP.	The Project site is located within the Mead Valley Area Plan of the Western Riverside MSHCP. The Project is not within a MSHCP Criteria Cell or Conservation Area. In accordance with the MSHCP, the proposed Project was reviewed for consistency with the MSHCP in Section IV, Biological Resources, and the Project's Habitat Assessment-MSHCP Consistency Analysis (see Appendix B). The Project would be consistent with the requirements and mitigation set forth in the MSHCP and Conservation Element Policy III.A.
Policy IV.A: Comply with State and Federal regulations and ensure preservation of the significant historical, archaeological, and paleontological resources.	As addressed in Sections V, Cultural Resources and VII, Geology and Soils, and XVIII, Tribal Cultural Resources, the Project would comply with applicable regulations and implement mitigation measures to ensure preservation of significant historical, archaeological, and paleontological resources. Therefore, the Project would be consistent with Conservation Element Policy IV.A.

Policy V.A: Coordinate land-planning efforts with local water purveyors.	The Eastern Municipal Water District (EMWD) is the local water provider and has been involved with utility planning for the proposed land uses at the Project site. Water-related improvements are detailed in Section 9, Project Description. The Project would be consistent with Conservation Element Policy V.A.
Policy VI.A: Comply with requirements of the National Pollutant Discharge Elimination System (NPDES).	As required under the NPDES, a SWPPP would be created for construction of the proposed Project. The Project would also be required to comply with the NPDES permit and Waste Discharge Requirements for Riverside County during operation as addressed in the Preliminary WQMP. The Project would be consistent with Conservation Element Policy VI.A.
Noise Element	
Policy I.A: The State of California Noise/Land Use Compatibility Criteria shall be use in determining land use compatibility for new development.	According to the City of Perris General Plan Noise Element, exterior noise levels of up to 65 dBA CNEL are considered to be "Normally Acceptable" for commercial uses based on the assumption that any building is of normal conventional construction without any special noise attenuation requirements. Noise levels between 65 and 75 dBA CNEL are "Conditionally Acceptable" and that new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction but with closed windows and fresh air supply systems or air conditioning will normally suffice. The proposed buildings would be built using conventional construction techniques with closed windows with air conditioning. The proposed buildings would be built using conventional construction techniques with closed windows with air conditioning. According to Appendix G of the Noise Element, the future 70 dBA CNEL noise contour for Perris Boulevard is expected to extend up to 84 feet from the centerline of the roadway. The future 70 dBA CNEL noise contour for Placentia Avenue is expected to extend up to 22 feet from the centerline of the roadway The proposed buildings would be located approximately 70 feet from the centerline of Perris Boulevard and approximately

	85 feet from the centerline of Placentia Avenue. The nearest building would be located approximately 70 feet from the roadway centerline. Therefore, these buildings would not be exposed to roadway noise levels that exceed the applicable Noise Element standards. The Project site is located approximately 3.0 miles south of MARB/IPA and is located within the MARB/IPA Airport Influence Area Boundary, and the area subject to the 2018 Final Air Installations Compatible Use Zone (AICUZ) Study for March Air Reserve Base. The Project site is located beyond the 60 dBA CNEL noise contours shown in Figure 4-2 of the AICUZ Study for March Air Reserve Base. Therefore, noise levels associated with aircraft operations at March ARB/IPA would not exceed the City's standards for commercial uses. Therefore, the Project would be consistent with Noise Element Policy I.A.
Policy V.A: New large-scale commercial or industrial facilities located within 160 feet of sensitive land uses shall mitigate noise impacts to attain an acceptable level as required by the State of California Noise/Land Use Compatibility Criteria.	The Project consists of new commercial uses within 160 feet of single-family residences to the north, east and south. The noise evaluation addressed whether the project would generate noise levels in excess of 60 dBA CNEL, at the existing adjacent receivers. The Project would comply with Noise Element Policy V.A.
Safety Element	
Policy S-2.1: Require road upgrades as part of new developments/major remodels to ensure adequate evacuation and emergency vehicle access. Limit improvements for existing building sites to property frontages.	The Project would require new driveways along both Placentia Avenue and Perris Boulevard. No upgrades to the existing roadways are required to ensure adequate evacuation and emergency vehicle access. The driveway improvements would be constructed consistent with City of Perris specifications. The Project would be consistent with Safety Element Policy S-2.1.
Policy S-2.2: Require new development or major remodels include backbone infrastructure master plans substantially consistent with the provisions of "Infrastructure Concept Plans" in the Land Use Element.	The Project includes proposed access improvements, utility and stormwater infrastructure consistent with the provisions contained in the Land Use Element. The Project would be consistent with Safety Element Policy S-2.2.

Policy S-2.5: Require all new developments, redevelopments, and major remodels to provide adequate ingress/egress, including at least two points of access for sites, neighborhoods, and/or subdivisions.	The Project includes six new driveways. The driveways and access improvements along Placentia Avenue and Perris Boulevard would provide adequate ingress/egress. The Project would be consistent with Safety Element Policy S-2.5.
Policy S-4.1: Restrict future development in areas of high flood hazard potential until it can be shown that risk is or can be mitigated.	The Project site is not located in an area of high flood hazard according to the Safety Element. Therefore, the Project would be consistent with Safety Element Policy S-4.1
Policy S-4.3: Require new development projects and major remodels to control stormwater run-off on site.	The proposed drainage system has been designed to control all stormwater run-off on site. Therefore, the Project is consistent with Safety Element Policy S-4.3.
Policy S-4.4: Require flood mitigation plans for all proposed projects in the 100-year floodplain (Flood Zone A and Flood Zone AE).	The Project site is not within the 100-year Floodplain and, therefore, the proposed Project would be consistent with Safety Element Policy S-4.4.
Policy S-4.5: Ensure areas downstream of dams within the City are aware of the hazard potential and educated on the necessary steps to prepare and respond to these risks.	The applicant is aware of the Project site's location in the Dam Inundation Zone identified in the Safety Element. Recent improvements to the Lake Perris Reservoir dam would reduce the potential hazard resulting from a dam failure. The Project would be consistent with Safety Element Policy S-4.5.
Policy S-5.3: Promote new development and redevelopment in areas of the City of Perris outside the VHFHSZ and allow for the transfer of development rights into lower-risk areas, if feasible.	The Project ite is outside of the Very High Fire Hazard Severity Zone (VHFHSZ). The transfer of development rights is not proposed. The Project would be consistent with Safety Element Policy S-5.3.
Policy S-5.6: All developments throughout the City Zones are required to provide adequate circulation capacity, including connections to at least two roadways for evacuation.	The Project would provide adequate circulation capacity and would include connections to both Placentia Avenue and Perris Boulevard. The Project would be consistent with Safety Element Policy S-5.6.
Policy S-5.10: Ensure that existing and new developments have adequate water supplies and conveyance capacity to meet daily demands and firefighting requirements.	Water supplies and conveyance infrastructure would meet daily demand and would be adequate for firefighting. The Project would be consistent with Safety Element Policy S-5.10.
Policy S-6.1: Ensure new development and redevelopments comply with the development requirements of the AICUZ Land Use Compatibility Guidelines and ALUP Airport Influence Area for March Air Reserve Base.	The project required review by the Riverside County ALUC to ensure consistency with the applicable plans and development requirements related to the MARB/IPA ALUCP. ALUC reviewed the Project and determined that it is consistent with the applicable policies. Therefore, the Project would be consistent with Safety Element Policy S-6.1.

Policy S-6.2: Effectively coordinate with March Air Reserve Base, Perris Valley Airport, and the March Inland Port Airport Authority on development within its influence areas.	As stated above, the Project applicant has coordinated with ALUC which determined that the Project would comply with the MARB/IPA ALUCP. The Project site is not located within the area subject to the Perris Valley Airport ALUCP. The Project would be consistent with Safety Element Policy S-6.2.
Policy S-7.1: Require all development to provide adequate protection from damage associated with seismic incidents.	Design and construction of the Project would be required to be in conformance with applicable building codes to avoid or minimize impacts from seismic events. The Project would be consistent with Safety Element Policy S-7.1.
Policy S-7.2: Require geological and geotechnical investigations by State-licensed professionals in areas with potential for seismic and geologic hazards as part of the environmental and development review and approval process.	A Preliminary Geotechnical Interpretive Report has been prepared and incorporated herein as an appendix to this Initial Study. The Project would be consistent with Safety Element Policy S-7.2.
Healthy Community Element	
Policy HC 1.3: Improve safety and the perception of safety by requiring adequate lighting, street visibility, and defensible space.	The proposed lighting would include a combination of operational, street, and security lighting on the building's exterior and in parking areas. the transportation analysis provided design requirements for safe circulation. The Project site is within an urban area. No defensible space is required. The project would be consistent with Healthy Community Element Policy HC 1.3.
Policy HC 6.3: Promote measures that will be effective in reducing emissions during construction activities: • Perris will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations • All construction equipment for public and private projects will also comply with California Air Resources Board's vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD • Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control	Construction activities would follow South Coast AQMD and California Air Resources Board rules and regulations for dust and other emissions. A Construction Management Plan would be prepared prior to construction to include Best Available Control Measures and appropriate control measures. The Project would be compliant with Healthy Community Element Policy HC 6.3.

measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded	
Environmental Justice Element	
Goal 3.1 Policy: Continue to ensure new development is compatible with the surrounding uses by co-locating compatible uses and using physical barriers, geographic features, roadways or other infrastructure to separate less compatible uses. When this is not possible, impacts may be mitigated using: noise barriers, building insulation, sound buffers, traffic diversion.	The proposed Project is consistent with surrounding commercial and residential land uses. Impacts to the residential land uses to the west would be minimized through the use of sound/screening walls and landscaping. The project would be consistent with this Environmental Justice Element Goal 3.1 policy.
Goal 3.1 Policy: Support identification, clean-up and remediation of local toxic sites through the development review process.	There is no evidence of on-site contamination reported in the State Water Board Geotracker database or the Department of Toxic and Substance Control Envirostor database. The Project would be consistent with this Environmental Justice Element Goal 3.1 policy.
Goal 3.1 Policy: Encourage smoke-free/vape-free workplaces, multi-family housing, parks, and other outdoor gathering places to reduce exposure to second-hand smoke. As part of the development review process, require conditions that promote Good Neighbor Policies for Industrial Development for industrial buildings larger than 100,000 square feet. The conditions shall be aimed at protecting nearby homes, churches, parks, day-care centers, schools, and nursing homes from air pollution, noise lighting, and traffic associated with large warehouses, making them a "good neighbor."	The proposed Project is not an industrial development; thus, good neighbor policies do not apply. Section 5148 of the California Code of Regulations prohibits smoking within workplaces. The Project would be consistent with this Environmental Justice Element Goal 3.1 policy.
Goal 5.1 Policy: Require developers to provide pedestrian and bike friendly infrastructure in alignment with the vision set in the City's Active Transportation Plan or active transportation in-lieu fee to fund active mobility projects.	Bicycle parking would be installed around the commercial buildings. The development fee action (A4.5) of the City's Active Transportation Plan has not yet been reflected in the development fee schedule. The Project would be consistent with this Environmental Justice Goal 5.1 policy.

The Project site is designated Community Commercial. Thus, the Project would not result in employment growth that is greater that what was used to develop Connect SoCal, the Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments (SCAG). Forecasts from Connect SoCal project an increase of 10,300 employees between 2024 and 2050 in the City of Perris. Thus, the employees generated by the Project would be with SCAG's Connect SoCal forecasts.

Connect SoCal (2024) (approved April 2024) contains twelve mobility policies that provide guidance for considering projects based on SCAG's long-range planning strategies. Table 4 provides analysis of the consistency of the Project with the applicable mobility policies from Connect SoCal. As shown, the proposed Project would not conflict with the goals of Connect SoCal.

Table 4
Connect SoCal 2024 Consistency

Connect SoCal 2024-2050 Mobility Policies	Consistency Evaluation
System Preservation and Resilience. Prioritize repair, maintenance and preservation of the SCAG region's existing transportation assets, following a "Fix-It-First" principle.	The Project would provide access improvements along both Perris Boulevard and Placentia Avenue. These would enhance safety and traffic movement along these streets. The Project would be consistent with this Mobility Policy.
Complete Streets. Pursue the development of Complete Streets that comprise a safe, multimodal network with flexible use of public rights-of-way for people of all ages and abilities using a variety of modes (e.g., people walking, biking, rolling, driving, taking transit)	Roadway improvements to Placentia Avenue and North Perris Boulevard are components of the proposed Project that would improve vehicular circulation. Further, use of Placentia Avenue, an approved truck route, would facilitate the delivery of goods to the businesses located within the shopping center. The Project would be consistent this Mobility Policy.
Transit and Multi-Modal Integration. Encourage and support the implementation of projects, both physical and digital, that facilitate multimodal connectivity, prioritize transit and shared mobility, and result in improved mobility, accessibility and safety. Encourage residential and employment development in areas surrounding existing and planned transit/rail stations	See response to the Complete Streets Policy. The Riverside Transit Agency (RTA) provides service to the general area with Route 19. The nearest transit stop is located across Perris Boulevard from the Project site. The Project would not affect existing transit service along RTA Route 19 as currently provided or otherwise affect transit or multimodal access. The Project would be consistent this Mobility Policy.
Transportation System Management. Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of adding roadway capacity, where possible	The proposed Project would provide transportation improvements fronting the site to improve access and safety when entering and existing the parking lot. These improvements would not increase the existing road network capacity. The Project would be consistent this Mobility Policy.
Transportation Demand Management. Encourage the development of transportation projects that provide convenient, cost-effective and safe alternatives to single-occupancy vehicle travel (e.g., trips made by foot, on bikes, via transit, etc.)	See response to the Transportation System Management policy above. The Project would be consistent this Mobility Policy.
Technology Integration. Support the implementation of technology designed to provide equal access to mobility, employment,	The proposed Project would be a new commercial development. This Mobility Policy is not applicable.

economic opportunity, education, health and other quality-of-life opportunities for all residents within the SCAG region	
Safety. Eliminate transportation-related fatalities and serious injuries (especially those involving vulnerable road users, such as people, especially older adults and children, walking and biking) on the regional multimodal transportation system	See response to the Safety policy above. This Mobility Policy is not applicable to the proposed Project.
Funding the System/User Fees. Leverage locally available funding with innovative financing tools to attract private capital and accelerate project delivery	The Project applicant would be responsible for funding off-site improvements along Perris Boulevard and Placentia Avenue required by the City to ensure safe ingress/egress. The Project would be consistent this Mobility Policy.
Priority Development Areas. Promote the growth of origins and destinations, with a focus on future housing and population growth, in areas with existing and planned urban infrastructure that includes transit and utilities.	The proposed Project would be constructed adjacent to existing residential neighborhoods to the north, east and south. The Project would provide new commercial services proximal to existing residences and transit access as stated. The Project would be consistent this Mobility Policy.
Housing the Region. Encourage housing development in areas with access to important resources and amenities (economic, educational, health, social and similar) to further fair housing access and equity across the region.	The proposed Project would not provide housing. This Mobility Policy is not applicable to the proposed Project.
15-Minute Communities. Promote 15-minute communities as places with a mix of complementary land uses and accessible mobility options that align with and support the diversity of places (or communities) across the region. These are communities where residents can either access their most basic, day-to-day needs within a 15-minute walk, bike ride or roll from their home or as places that result in fewer and shorter trips because of the proximity of complementary land uses.	The proposed Project would be constructed adjacent to existing residential neighborhoods to the north, east and south. The Project would provide new commercial services proximal to existing residences and transit access. This would reduce travel time to existing businesses for those living proximal to the site. The Project would be consistent this Mobility Policy.
Equitable Engagement and Decision Making. Advance community-centered interventions, resources and programming that serve the most disadvantaged communities and people in the region, like Priority Equity Communities, with strategies that can be implemented in the short-to-long-term	The proposed Project would be constructed consistent with existing regulations related to ADA compliance and overall accessibility as stated. The Project would be consistent this Mobility Policy.

The project would be consistent with the City of Perris General Plan and Connect SoCal. The potential impacts would be **less than significant** with the implementation of the mitigation

measures recommended in this Initial Study for biological resources, cultural resources, paleontological resources, noise and tribal cultural resources.

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

a, b) The California Department of Conservation classifies the availability of mineral resources in a region into four mineral resource zone (MRZ) categories: MRZ 1 for no mineral resources, MRZ 2 for significant resources areas with the quality and quantity known, MRZ 3 for significant resource areas with the quality and quantity unknown, and MRZ 4 for areas with no information. According to the City of Perris General Plan EIR, the Department of Conservation is primarily interested in the preservation of significant resources in MRZ 2 regions. The land within the City of Perris, including the Project site, is classified as MRZ 3 and MRZ 4, which are not considered to be significant resource areas or delineated on any plan for mineral resource recovery uses (Perris General Plan EIR, p.VI-28). Implementation of the proposed Project would not 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** to mineral resources would occur under these thresholds.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Material provided in this section was obtained in part from the *Vallarta Market Place Shopping Center Noise Study*, prepared by Birdseye Planning Group, October 2023, Appendix F.

Regulatory Standards

City of Perris General Plan Noise Element

The City of Perris General Plan Noise Element (City 2016) establishes noise compatibility guidelines for land uses and provides policies for new commercial and industrial facilities. Policy V.A states that new large-scale commercial or industrial facilities located within 160 feet of sensitive land uses shall mitigate noise impacts to attain an acceptable level. This policy is enforced through Implementation Measure V.A.1 states that an acoustical impact analysis is required to ensure that noise levels generated by the commercial facilities do not exceed 60 CNEL for those residential land uses within 160 feet of the project. Exhibit N-1 of the City General Plan Noise Element shown in the Noise Study (Appendix H) shows that the land uses associated with commercial developments are normally acceptable when exposed to noise levels of 65 dBA CNEL and below. This land use is conditionally acceptable when exposed to noise levels of 75 dBA CNEL and below. As stated, residential properties are located to the north, east and south. The General Plan Noise Element states that noise levels between 50 and 60 dBA are normally compatible with residential uses.

City of Perris Municipal Code

Section 7.34.040 of the Perris Municipal Code limits exterior noise levels at nearby properties to a maximum noise level (Lmax) of 80 dBA from 7:01 a.m. to 10:00 p.m. and 60 dBA from 10:01 p.m. to 7:00 a.m.

Section 7.34.060 of the City's Municipal Code Chapter states that is in unlawful for any person between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Construction activity shall not exceed 80 dBA Lmax in residential zones.

a) The primary source of noise during construction activities would be comprised of heavy machinery used during site preparation (i.e., clearing/grubbing) and grading, as well as equipment used during building construction and paving. Table 5 shows the typical noise levels associated with heavy construction equipment. As shown in Table 5, average noise levels associated with the use of heavy equipment at construction sites can range from 80 to 85 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction. Project construction would occur over the entire Project site. Construction activities would vary in distance from the nearest sensitive properties which are the single-family residences along Genuine Risk Street that back up to the eastern property line and along Chant Street that back up to the southern property line. While the distance between the property line and closest residences varies, the distance is approximately 25 feet from the eastern and southern property lines.

Table 5
Typical Maximum (Lmax) Construction Equipment Noise Levels

Equipment Onsite	Typical Maximum Level (dBA) 25 Feet from the Source	Typical Maximum Level (dBA) 50 Feet from the Source	Typical Maximum Level (dBA) 100 Feet from the Source
Air Compressor	86	80	74
Backhoe	86	80	74
Bobcat Tractor	86	80	74
Concrete Mixer	91	85	79
Loader	86	80	74
Bulldozer	91	85	79
Jack Hammer	94	88	82
Pavement Roller	91	85	79
Street Sweeper	88	82	76
Man Lift	81	75	69
Dump Truck	90	84	78

Table 5
Typical Maximum (Lmax) Construction Equipment Noise Levels

Equipment Onsite	Typical Maximum Level (dBA) 25 Feet from the Source	Typical Maximum Level (dBA) 50 Feet from the Source	Typical Maximum Level (dBA) 100 Feet from the Source
Mobile Crane	89	83	77
Excavator/Scraper	91	85	79

Source: FTA Noise and Vibration Impact Assessment Manual (September 2018), Table 7-1.
Noise levels are based on actual maximum measured noise levels at 50 feet (Lmax).
Noise levels are based on a noise attenuation rate of 6 dBA per doubling of distance.

Construction noise across the entire site would vary throughout the workday and by phase (i.e., site preparation, grading, building construction, paving and architectural coating). As stated, the highest sustained noise levels would be associated with site preparation and grading because ongoing use of large earth moving and paving equipment would occur during these phases. Because of the site size, heavy equipment operation throughout the property can be accommodated simultaneously.

For the purpose of this evaluation, maximum construction noise was estimated with equipment operating at 25 feet from the nearest receiver west of the property line for the site preparation and grading phase. This is conservative as equipment can operate simultaneously throughout the site; however, equipment cannot operate at the same location at the same time. Typically, equipment is staggered across the site. Site preparation and grading/excavation would utilize a bulldozer, backhoe and loader. For building construction, noise from operation of a crane, manlift, backhoe and tractor/loader were used. Paving equipment noise was calculated based on noise levels from operation of a roller and paver at 25 and 50 feet from any specific receiver. Use of an air compressor for application of architectural coating phases was modeled at 50 feet, the approximate distance between the closest building and the southern property line. Equipment and materials would be staged proximal to the buildings to use the structures as a noise barrier to the extent feasible. However, to present a more conservative analysis, the noise levels identified in this report do not include any of the noise reductions associated with the features discussed in this paragraph.

The Federal Highway Administration Roadway Construction Noise Model data were used to estimate construction noise levels at the nearest occupied noise-sensitive land use referenced above. Although the model was funded by the Federal Highway Administration, the Roadway Construction Noise Model data is used for non-roadway projects because the same types of construction equipment used for roadway projects are used for other types of construction. Input variables for the Roadway Construction Noise Model consist of the receiver/land use types, the equipment type and number of each, the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. As noted, the distances were varied across the site as equipment cannot work simultaneously in the same location from a given point. No topographical or structural shielding was assumed nor did the calculations account for the fact that not all equipment

would operate at the same time. The estimated hourly Leq by phase are shown below in Table 6. These are the most conservative noise levels that could occur proximal to the neighboring properties.

Table 6
Estimated Maximum Construction Noise Levels

Phase	Lmax Noise Levels
Site Preparation (dozer, back-hoe, front-end loader)	87.7
Grading (dozer, backhoe and front-loader)	87.7
Building Construction (crane, manlift, backhoe and front-end loader)	79.0
Paving (paver and roller)	88.0
Architectural Coating (air compressor)	77.7

Note: Site Preparation, Grading and Paving assumes equipment would operate at 25 feet from the nearest receiver to approximate worst case conditions.

As shown in Table 6, the highest hourly noise levels are projected to be 87.7 dBA Lmax at 25 feet during site preparation and grading and 88.0 dBA 20 feet during paving. Maximum building construction noise levels are conservatively estimated to be 79.0 dBA Lmax at 50 feet from the property line. As stated, this does not consider screening by the buildings as they are constructed. The Lmax associated with the application of architectural coating would be approximately and 77.7 dBA Lmax (at 50 feet), respectively.

On a typical workday, heavy equipment would be operating sporadically throughout the project site and more frequently away from the edges of the site as the site preparation and grading phases are completed. However, nearby off-site residences would be exposed to elevated noise levels associated with construction. As stated, the City of Perris Municipal Code restricts construction to the weekday hours between 7:00 am and 7:00 pm , with the exception of some holidays. Construction is not allowed on Sundays or applicable holidays. The Project would comply with the Municipal Code restrictions on construction hours. Further, construction noise levels would be relatively short term and terminate as each construction phase is completed. However, as stated, noise levels could exceed the 80 dBA Lmax standard at the closest sensitive properties. With implementation of Project specific Mitigation Measures NOI-1, NOI-2 and NOI-3, potential impacts to a less than **less than significant with mitigation incorporated**.

Mitigation Measure NOI-1: **Install Temporary Noise Barrier.** A noise barrier shall be erected along the southern and eastern site boundary during construction. A minimum 8-foot-high barrier shall be maintained throughout site preparation and grading activities to reduce noise at adjacent receivers to the south and east. The noise barrier should be constructed of material with a minimum weight of 4 pounds per square foot with no gaps or perforations. Noise barriers may be constructed of 5/8-inch plywood and/or 5/8-inch

oriented strand board. Other temporary construction noise barrier systems may be used at the contractors' discretion with City of Perris approval.

Mitigation Measure NOI-2: Neighbor Notification. Notification shall be provided to residential occupants adjacent to the project site at least 48 hours prior to initiation of construction activities that could result in substantial noise levels at outdoor or indoor living areas. This notification shall include the anticipated hours and duration of construction and a description of noise reduction measures being implemented at the project site. The notification shall include a telephone number for local residents to call and submit complaints associated with construction noise.

Mitigation Measure NOI-3: Noise Control Plan. Construction contractors shall develop and implement a noise control plan that includes a noise control monitoring program to avoid construction noise levels exceeding 80 dBA Lmax at the nearest sensitive receivers. The plan may include the following requirements:

- Contractor shall turn off idling equipment.
- Contractor shall perform noisier operation during the times least sensitive to receptors.
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory- recommended mufflers.
- Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or security staff facilities.

Operational Noise

Operation of the proposed Project was evaluated for potential exterior traffic related impacts caused by increased traffic volumes associated with the project caused by traffic. As documented in the project's Trip Generation/VMT Screening Memorandum (August 2023) (Appendix H), the proposed Project is considered to be a typical development that would not cause traffic on the existing road network to exceed City established thresholds or affect the distribution of nighttime traffic. All Project traffic accessing the site would be concentrated (highest) on North Perris Boulevard and Placentia Avenue.

Exterior Traffic Noise. Traffic is the primary noise source that would be generated by operation of the proposed Project. Existing noise levels were measured at the project site on August 22, 2023. The highest Leq during the 15-minute monitoring period was 63.4 dBA at the southwest corner of the site along North Perris Boulevard. The existing measured Leq at the northeast corner of the project site was 61.3 dBA. Noise levels at receiving properties proximal to the site are greater than 60 dBA, the normally compatible noise level for residences referenced in the General Plan Noise Element policy for exterior noise exposure to transportation related noise at residences and other sensitive properties. As stated, the Noise Element sets 60 dBA CNEL for the outdoor areas and interior noise levels of less than 45 dBA CNEL as the "normally

acceptable" level. Noise levels up to 65 dBA CNEL are "conditionally acceptable" when interior noise standards can be met and noise levels are dominated by traffic.

The roadway network adjacent to the project site was modeled using the Federal Highway Administration Traffic Noise Model version 2.5 software. The model calculates traffic noise at receiver locations based on traffic volumes, travel speed, mix of vehicle types operating on the roadways (i.e., cars/trucks, medium trucks and heavy trucks) and related factors. The existing six-foot-high concrete masonry unit walls along the eastern and southern property boundaries, along the east side of North Perris Boulevard south and north of the site and along the north side of Placentia Boulevard were included in the calculations. The vehicle mix on Perris Boulevard and Placentia Avenue is based on vehicle counts during the noise monitoring effort. Hourly average baseline noise levels (Leq) were calculated at representative single-family residences located at the southwest corner of the site along North Perris Boulevard and along Placentia Avenue north of the site to calibrate the noise model without the existing perimeter walls. The perimeter walls were then added to the model to approximate actual baseline noise conditions at five sensitive properties adjacent to the site. These receivers represent the residences adjacent to the Project site. These receivers would experience the highest concentration of Project-related traffic. The receiver locations are defined as follows and shown in Figure 4.

1. Single-family residence at 2672 20 Grand Street southwest of the site;
2. Single-family residence at 34 Chant Street southwest of the site;
3. Single-family residence at 113 Galileo Lane north of Placentia Avenue;
4. Single-family residence at 145 Galileo Lane north of Placentia Avenue; and
5. Single-family residence at 100 Spectacular Bid Street northeast of the site.

Receivers 1 and 2 represent residences along Perris Boulevard south of the site. Receivers 3, 4 and 5 represent residences along Placentia Avenue north and east of the site. Noise levels associated with the Project were calculated by distributing 1,205 P.M. peak hour trips generated by the Project into the baseline traffic volumes along Perris Boulevard and Placentia Avenue. Volumes were concentrated in these areas for the purpose of evaluating worst case noise conditions. The modeling results are shown in Table 7. As shown, the highest modeled increase would occur at Receivers 4 and 5. Project P.M. peak hour volumes would not be high enough to cause a noticeable effect (i.e., +/- 3 dBA) on baseline conditions at any of the receivers modeled. Impacts related to exterior traffic-related noise would be less than significant.

Table 7
Modeled Noise Levels

Receptor	Existing Ldn/CNEL	Cumulative With Project Ldn/CNEL	Decibel Change –	Significant Impact
Receiver 1	57.0	57.8	+0.8	No
Receiver 2	58.2	59.0	+0.8	No
Receiver 3	60.2	61.1	+0.9	No
Receiver 4	58.2	59.4	+1.2	No
Receiver 5	55.8	57.1	+1.3	No

On-Site Truck Movement. Mid-size delivery trucks (i.e., two-axle, six wheel) would move throughout the site servicing the commercial tenants. It is assumed that some heavy trucks (i.e., semi-trucks) would deliver to the grocery regularly. The heavy trucks would enter the site from the north and travel around to the back of the grocery store and retail buildings to unload. Placentia Avenue is a designated truck route within the City of Perris and Interstate 215 is located approximately one mile to the west. To quantify on-site truck movement noise exposure in terms of the CNEL/Ldn (24-hour average), individual truck movement sound exposure level (SEL) is used. The SEL is a measure of the total energy of a noise event, including consideration of event duration. The SEL is not actually heard, but is a derived value used for the calculation of energy-based noise exposure metrics such as the CNEL/Ldn. The average measured truck event movement SEL is 78.1 decibels (Birdseye Planning Group, 2022/WJVA Acoustics, 2017) which includes noise generated by diesel engines, air brakes and backup warning devices. The number of daily truck trips accessing the loading dock(s) at the rear of the store is assumed to be 18 (Transportation Northwest, August 2010) and that the trips would be evenly distributed over a 24-hour day. The L_{dn} associated with truck movement is quantified using the following equation:

Ldn = *SEL + 10 log Neq – 49.4*

SEL is the average SEL for a truck movement, Neq is the equivalent number of truck movements in a typical 24-hour period determined by adding 10 times the number of nighttime events (10 p.m. - 7 a.m.) to the actual number of daytime events (7 a.m. – 7 p.m.), and 49.4 is a time constant equal to 10 log the number of seconds in the day. Assuming 18 truck events per day, the resulting noise exposure on-site would be approximately 41.2 dBA Ldn (i.e., 24-hour average). The Lmax (78.1 dBA) associated with truck movement would be less than the 80 dBA Lmax daytime standard; however, it would exceed the 60 dBA Lmax nighttime standard.

Drive-Thru Menu Board Speakers. Speaker noise is an intermittent, variable noise source and subject to change with volume settings. Based on field observations, speaker noise is typically screened by the vehicle at the menu board and is audible as a conversational source. Measured sound levels from drive-thru menu boards approximate 53 dBA at approximately 32 feet. As stated, ambient noise levels at the southwest corner of the site is approximately 63.5 dBA and 61.3 dBA at northeast corner. As stated in the Project Description, a total of three quick serve restaurants with drive thru windows are proposed along the western side of the site adjacent to North Perris Boulevard. One would be located near the southwest corner of the site north of the 26-foot-wide driveway and adjacent 12-foot wide drive thru lane.

Speakers may be mounted in a variety of different enclosures. Further, buildings, adjacent cars and other cars in proximity all effect the direction and attenuation rate of speaker noise. Speaker noise is also intermittent rather than a constant source. These factors all make the sound more directional and the decay rate less predictable. Based on the planned orientation of the speaker boards, the speaker noise associated with the northerly two quick serve restaurants would project west towards North Perris Boulevard. However, the quick serve restaurant at the southwest corner of the site would project south towards the receivers located adjacent to the

southwest corner of the site. The menu board speaker would be approximately 40 feet north of the southern property line. A sound level of 53 dBA at 32 feet would be less than the 80 dBA daytime Lmax standard and 60 dBA nighttime Lmax standard at the southern property line. The existing perimeter wall would provide approximately 5 dBA of additional attenuation. Speaker noise at the residences located south of the site would be 48 dBA Lmax which is less than baseline levels and both the daytime and nighttime standard.

Loading Dock Operation. The reference loading dock activities are intended to describe the typical operational noise activities associated with primarily the supermarket; however, deliveries would occur at all the buildings located on-site. The supermarket loading dock is located on the east side of the building approximately 43 feet west of the property line, proximal to single-family residences located adjacent to and east of the site. Loading docks noise includes trucks maneuvering, air brakes, truck unloading, backup alarms or beepers and truck docking. Truck operation would be comprised of a combination of tractor trailer semi-trucks and two-axle delivery trucks. To describe the supermarket loading dock activities, short-term reference noise level measurements were collected. The reference loading dock activity noise level measurement was taken over a fourteen-minute period and represents multiple noise sources taken from the center of activity generating a reference noise level of 71.2 dBA Lmax at a uniform reference distance of 50 feet.

Typical backup alarms generate a noise level of 109.7 dBA at four feet at a single frequency of one KHz. Backup alarms on trucks are commonly mounted on the back of the truck at a height of 3 feet above the ground. Assuming 18 truck operations daily, using the equation above and an SEL/Lmax of 71.2 dBA,the CNEL/Ldn for general activity within the loading area would be 39.8 dBA CNEL. A Lmax of 71.2 dBA would not noticeably attenuate over the distance between the supermarket building and closest residences to the east; however, the existing 6-foot high CMU wall would provide approximately 5 dBA of attenuation. The loading dock activity would would not exceed the 80 dBA daytime Lmax standard; however, it would exceed the 60 dBA Lmax nighttime standard. Without mitigation, the impact would be significant.

Roof-Top Air Conditioning Units. The Project would use commercial-sized HVAC units located on the rooftop of the buildings behind shrouds and/or parapets. Specific planning data for the future HVAC systems is not available at this stage of project design. To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements from Lennox SCA120 series 10-ton model packaged air conditioning unit were used. At a uniform reference distance of 50 feet, the roof-top air conditioning units generate a reference noise level of 57.7 dBA Lmax. The parapets would provide 5-10 dBA of attenuation which would reduce HVAC noise to approximately 52.7 dBA. If located proximal to the center of the buildings, noise levels from each unit would attenuate to below existing background noise levels approximately 50 feet from the source. HVAC systems are not anticipated to be audible at off-site receivers.

Combined Sources. The combined noise from operation of the HVAC units would attenuate to approximately 52.7 dBA Lmax at 50 feet, the approximate distance between the source and

closest residential receivers to the south. This would meet both the 80 dBA Lmax daytime and 60 dBA Lmax nighttime standard along the eastern and southern property lines where residences are located adjacent to the site. The closest menu board speaker would be approximately 40 feet north of the southern property line. A sound level of 53 dBA at 32 feet would be less than the 80 dBA daytime Lmax standard and 60 dBA nighttime Lmax standard at the southern property line. Truck movement would generate an Lmax of approximately 78.1 dBA Lmax and a 24-hour average of 41.2 dBA. The 24-hour average is below the residential compatibility standard identified in the General Plan Noise Element as referenced above. While truck movement activities would be below the 80 dBA Lmax daytime standard, truck movement could exceed the 60 dBA Lmax nighttime standard during individual events. Similarly, operation of the loading dock behind the supermarket would exceed the 60 dBA nighttime standard. To avoid exceeding the nighttime standard, it is recommended that mitigation measure NOI-4 be implemented.

> **Mitigation Measure NOI-4.** All truck deliveries requiring use of the loading dock at the rear of the supermarket building shall be conditioned to occur only between 7:00 a.m. and 10:00 p.m.

With implementation of project-specific Mitigation Measures NOI-4, nighttime noise levels at neighboring receivers would be **less than significant with mitigation incorporated**.

b) The vibration velocity level threshold of perception for humans is approximately 65 vibration decibles (VdB). A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. As stated, 0.2 peak particle velocity (PPV) (94 VdB) is the vibration level at which damage to residential structures can occur and is considered annoying to most people exposed to the vibration energy.

Heavy impact construction methods that could generate enough vibration to damage buildings proximal to the project site (i.e., pile driving, rock breaking, drilling, blasting) would not be required for the project. However, both PPV and the related VdB are used to address construction vibration and related effects to structurees and people residing in adjacent residences. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. The PPV and accompanying VdB level associated with common construction equipment is shown in Table 8.

Construction activity within the Project site would be temporary and vibration events would be transitory occuring only during equipment pass bys. Using vibration levels associated with a large bulldozer the piece of equipment with the highest vibration level, as a worst case scenario, typical groundborne vibration could reach 87 VdB at 25 feet, the distance between the property boundary and nearest receiver. Vibration at this level can cause annoyance for brief periods of time during pass by events. Sustained equipment operation is not expected to occur proximal to this location nor would the PPV reach levels that may cause structural damage to the nearest residential buildings.

Table 8
Vibration Source Levels for Construction Equipment

	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, September 2018.		

As stated, vibration levels in excess of 75 VdB may be perceptible; thus, vibration may be perceptible at the nearest residences periodically during equipment pass by events. While there are no specific standards for use in quantifying excessive vibration levels, the PPV would not be high enough to damage buildings (i.e., 0.2 PPV) nor would construction activities generate vibration levels high enough to annoy people (i.e., 94 dBA). Thus, temporary vibration impacts would be **less than significant**.

Operation-Related Vibration

The proposed Project would provide eight new commercial buildings. These uses do not generate vibration; thus, no vibration impacts are anticipated to occur with operation of the Project.

c) According to the City of Perris General Plan Noise Element, exterior noise levels of up to 65 dBA CNEL are considered to be "Normally Acceptable" for commercial uses based on the assumption that any building is of normal conventional construction without any special noise attenuation requirements. Noise levels between 65 and 75 dBA CNEL are "Conditionally Acceptable" and that new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction but with closed windows and fresh air supply systems or air conditioning will normally suffice. The proposed buildings would be built using conventional construction techniques with closed windows with air conditioning.

The Project site is located approximately 3.0 miles south of MARB/IPA and is located within the MARB/IPA Airport Influence Area Boundary, and the area subject to the 2018 Final Air Installations Compatible Use Zone (AICUZ) Study for March Air Reserve Base. The Project site

is located beyond the 60 dBA CNEL noise contours shown in Figure 4-2 of the AICUZ Study for March Air Reserve Base. Therefore, noise levels associated with aircraft operations at March ARB/IPA would not exceed the City's standards for commercial uses and potential impacts would be less than significant.

Perris Valley Airport is located approximately 3.4 miles south of the Project site. According to the Airport Land Use Compatibility Plan (ALUCP) for Perris Valley Airport, the Project site is not located within the Airport Influence Area Boundary or area affected by aircraft noise as per Exhibit PV-3 (Riverside County Airport Land Use Commission 2011). Therefore, no impact associated with noise levels from Perris Valley Airport would occur.

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

a) The proposed Project would include a new grocery store/supermarket, two retail buildings, a convenience store/fueling station and four fast food restaurants. The proposed Project does not include residential development; thus, the project would not cause or contribute to unplanned population growth. Because the Project is intended to serve the existing population and has no other features that would directly or indirectly induce growth, **no impact** would occur under this threshold.

b) The Project site is vacant. Project implementation would not result in the removal of any existing housing. No residents would be displaced nor would removal of housing require the construction of replacement housing elsewhere. **No impact** would occur under this threshold.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☒	☐

a) The proposed Project would include the construction and operation of a new shopping center that would require fire protection services; however, no new residential uses or other uses that would increase the City's population would be constructed. The City of Perris contracts with the Riverside County Fire Department to provide fire protection services within the City and has two fire stations within its boundaries that are served by 14 firefighters (City 2021). The two fire stations are located at 210 W. San Jacinto Avenue (Station No. 1) and 333 Placentia Avenue (Station No. 90). Station 90 is located approximately ¼ mile east of the Project site; and thus, would be first responder to an incident. The Project site is designated for commercial development; thus, the Project would not induce unplanned growth that would require the construction of new or expanded fire protection facilities. However, the Project applicant would be required to pay a Development Impact Fee (DIF) for fire services that would support fire protection services at the Project site and throughout the City of Perris. Therefore, potential impacts would be **less than significant.** No mitigation would be required.

b) The proposed Project would include the construction and operation of a new shopping center that may require police protection services; however, no new residential uses or other uses that would increase the City's population would be constructed as part of the project. The City

contracts with the Riverside County Sheriff's Office to provide police protection services within the City and has a police station located at 137 North Perris Boulevard, approximately 2.2 miles south of the Project site. While the Project site is planned for commercial development, the Project would not induce growth in an unplanned manner that would place unexpected future demands on existing police protection services. The Project would also not represent a use that would require unique or expanded police protection services. As a result, the Project itself is not expected to require the construction of new or expanded police protection facilities; however, the Project applicant would be required to pay a Development Impact Fee (DIF) to support police protection services at the Project site. Therefore, potential impacts would be **less than significant.** No mitigation would be required.

c) The proposed Project would construct and operate a new shopping center. It would not induce growth within the Project area that would increase the demand for school services. The site is within the Val Verde Unified School District. The Project applicant would be conditioned to pay impact fees to the school district to assist with the development and/or expansion of school facilities to accommodate population growth within the City of Perris associated with future growth. **No impact** to schools would occur.

d) The proposed Project would result in the construction and operation of a new shopping center. It would not increase the use of parks that would require the construction or expansion of additional park and recreational facilities. **No impact** would occur under this threshold.

f) Other public facilities include streets, libraries, senior centers, community centers, and pools, all of which are intended to serve the general public. The proposed Project involves the construction and operation of a new shopping center. These uses would not induce population growth or otherwise increase demand for public services. Thus, no construction or expansion of other public facilities would occur. However, increased use of Perris Boulevard and Placentia Avenue by trucks accessing the site would contribute to ongoing wear and tear of local streets. Impact fees paid by the applicant could be allocated to street repair or a related use as needed and determined by City of Perris staff. Potential impacts would be **less than significant** under this threshold.

	Potentially Significant Impact	**Less Than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XVI. <u>RECREATION</u> --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. RECREATION --				
occur or be accelerated?				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) The proposed Project consists of construction and operation of a new commercial shopping center. The Project would not increase the use of or create the need for new parks and recreational facilities. Similarly, the proposed Project would not result in physical deterioration of an existing open space area or any recreation facilities. **No impact** would occur under this threshold.

b) The proposed Project consists of construction and operation of a commercial shopping center. The Project would not increase the use of or create demand for expanded recreational facilities. **No impact** would occur under this threshold.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. TRANSPORTATION -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. <u>TRANSPORTATION</u> -- Would the project:				
equipment)?				
d) Result in inadequate emergency access?	☐	☐	☐	☒

The information provided in this section is summarized from the *Trip Generation and VMT Screening Analysis for the Vallarta Market Place Community Shopping Center*, prepared by Mizuta Traffic Consulting, Inc., October 2024; (Appendix G).

a) The following summarizes potential Project impacts to existing bicycle/trail, transit and pedestrian facilities in proximity to the Project site.

Bicycle and Trail Facilities. There are no existing striped bicycle lanes on Perris Boulevard or Placentia Avenue. No trails are located within or planned for construction within the Project area. The Project would not affect existing bicycle facilities, implementation of planned bicycle facilities or use of existing or planned trail facilities.

Transit Facilities. The Riverside Transit Agency (RTA) provides service to the general area with Route 19. The nearest transit stop is located across Perris Boulevard from the Project site. The Project would not affect existing transit service along RTA Route 19 as currently provided.

Pedestrian Facilities. Sidewalks front the Project site on both sides of Perris Boulevard and Placentia Avenue. Sidewalk, curb and gutter repair/improvements would be required for construction of the project ingress/egress driveways. These improvements would retain off-site connectivity for pedestrians. The project will have no adverse impacts to pedestrian facilities.

No impact would occur under this threshold.

b) The Project is estimated to generate 13,950 average daily trips (ADT) with 971 trips (511 inbound, 460 outbound) during the AM peak-hour and 1,205 trips (613 inbound, 592 outbound) in the PM peak-hour. After applying a pass-by trip reduction factor to account for existing vehicles on the adjacent roadways that would stop at the Project site, the Project is estimated to generate a net of 9,844 ADT with 566 trips (292 inbound, 274 outbound) during the AM peak-hour and 681 trips (344 inbound, 337 outbound) during the PM peak-hour.

Senate Bill (SB) 743 was approved in 2013 and revised the method for assessing transportation impacts under CEQA. The Governor's Office of Planning and Research recommended the use of

vehicle miles travelled (VMT) as the required metric to replace the automobile delay-based Level of Service (LOS). The VMT assessment is required to satisfy CEQA guidelines that utilize VMT as the required metric to determine transportation impacts. The Trip Generation and VMT Screening Analysis was based on the criteria outlined in the *City of Perris Traffic Impact Analysis Guidelines*, *May 2020.*

According to the City's Transportation Impact Analysis Guidelines, there are five screening criteria that can be applied to effectively screen projects from VMT project-level assessments. The purpose is to screen out projects that are presumed to have a non-significant transportation impact based on facts of a project and to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743. The following lists the five screening criteria:

1. Is the project 100% affordable housing?
2. Is the project within one half (1/2) mile of qualifying transit?
3. Is the project a local serving land use?
4. Is the project in a low VMT area?
5. Are the project's net daily trips less than 500 ADT?

If the Project meets any of the screening criteria above, it is presumed to not have a significant impact and is screened out from completing additional VMT analysis. Based on a review of the screening criteria, the most appropriate and applicable criterion is p whether the Project is located within ½ mile of an existing or major transit stop or an existing stop along a high-quality transit corridor. Those that meet with criteria are presumed to have a less than significant impact absent substantial evidence to the contrary.

The City's Transit Priority Area exhibit shows that the project site is located within a Transit Priority Area. Additionally, the Western Regional Council of Government's VMT Screening Tool was used to verify the determination. The Project site is located within Traffic Analysis Zone 1836 and this is located inside a Transit Priority Area. Thus, the Project would meet criterion 2. Potential transportation impacts related to VMT would be **less than significant** under this threshold.

c) The proposed Project would be consistent with the Community Commercial zoning designation for the site. Implementation of the Project would not introduce incompatible uses to the Project area. Project access driveways would be designed consistent with City of Perris design standards, which would ensure that adequate site distance and pedestrian access is provided at each Project access location. Additionally, prior to the issuance of final occupancy permits, City staff would ensure that signing/striping are implemented in conjunction with the detailed construction plans for the Project site and off-site improvement area.

Signage would be posted on-site directing delivery truck drivers to use the existing City truck route on Placentia Boulevard to access Interstate 215. Signage information would be coordinated with the City Traffic Engineer during the plan check process. The truck access driveways would be separated from the passenger car parking areas on the west side of the

supermarket and retail buildings located on the east side of the site to ensure the safety of vehicle occupants and pedestrians.

All roadway improvements would be designed consistent with City of Perris standards. The Project would not create dangerous curves or intersections. During construction, the proposed Project would comply with all local regulations regarding temporary road closures or/and/or one-way traffic controls. Potential impacts would be **less than significant** and no Project-specific mitigation would be required.

d) A significant impact would occur if the design of the proposed Project would not satisfy emergency access requirements of the Riverside County Fire Department or in any other way threaten the ability of emergency vehicles to access and serve the Project site or adjacent uses. The proposed Project would provide adequate emergency access. As discussed above, access to the site will be provided via six driveways; three along Placentia Avenue and three along Perris Boulevard. The driveways would be of standard size required to accommodate passenger cars and emergency vehicles. The truck entrances would be constructed per City of Perris standards to accommodate heavy trucks. All access features are subject to the City of Perris design requirements, including the Fire Department's requirement of a minimum 20-foot width for driveways. Because of this, emergency vehicles would be able to access the Project site. Potential impacts associated with this issue would be **less than significant** and no mitigation would be required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resource 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	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:				
Historic Places, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or				
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a-b) Based on the results of the Cultural Resources Investigation conducted for the Project (PaleoWest, October 2023; Appendix C), no known tribal cultural resources are present at the Project site. However, there is the potential for previously undiscovered tribal cultural resources to occur at the Project site given the cultural sensitivity of the area identified by Native American tribes in the region. Ground disturbing activities could harm previously undiscovered subsurface resources which would be a potentially significant impact. The Cultural Resources Survey recommends that a Native American monitoring program be implemented. This would be implemented through Mitigation Measure CUL-1.
In the unlikely event that human remains are discovered during construction, all activities in the vicinity of the remains shall cease and the contractor shall notify the County Coroner immediately pursuant to California Health & Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Project Mitigation Measure CUL-2 shall be implemented to ensure that potential impacts to Native American human remains would be less than significant.

In accordance with the requirements of AB 52, the City, as the lead agency, notified the tribes identified by the NAHC. The notices were sent out to the following tribes on June 12, 2024:

- Agua Caliente Band of Cahuilla Indians;
- Torrez Martinez Desert Cahuilla Indians;
- Morongo Band of Mission Indians;
- Pechanga Band of Indians;
- Rincon Band of Luiseño Indians; and
- Soboba Band of Luiseño Indians.

The comment period concluded on July 11, 2024. No comments were received.

With completion of consultation pursuant to AB 52 and implementation of Mitigation Measures CUL-1 and CUL-2, potential impacts to tribal cultural resources would be **less than significant with mitigation incorporated**.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Within the Project area, potable water is distributed and wastewater is collected and conveyed by the Eastern Municipal Water District (EMWD). Water to the Project vicinity is provided by water delivery pipes located within both Perris Boulevard and Placentia Avenue. The Project would connect to one or both of the existing water pipes without the need for the EMWD to provide new infrastructure within the Project area.

The EMWD provides wastewater services to approximately 239,000 customers within its service area and currently treats approximately 43 million gallons per day of wastewater at its four active regional water reclamation facilities through 1,813 miles of sewer pipelines. The facilities closest to the project area is the Perris Valley Regional Water Reclamation Facility. The Perris Valley Regional Water Reclamation Facility is the largest of the four treatment facilities operated by the EMWD and has a daily treatment capacity of 22 million gallons per day with a build out capacity of 100 million gallons per day. Currently, the facility treats approximately 13.8 million gallons per day. Assuming that wastewater is approximately 60% of potable water demand (approximately 23,609 gallons per day – see item b below), the Project would generate approximately 15,785 gallons per day of wastewater. This is 0.0007% of the daily treatment capacity of the Perris Valley Regional Water Reclamation Facility. The EMWD has provided a will serve letter for wastewater. Therefore, no new wastewater facilities would be needed to serve the Project**.**

The Project would connect to an existing 15-inch sewer line in Placentia Avenue. It would not require relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, natural gas, or telecommunications facilities or expansion of existing facilities. No impacts associated with the construction or relocation of public utilities would occur. Potential impacts related to the provision of utility services would be **less than significant**.

b) The EMWD provides potable water, recycled water, and wastewater services to an area of approximately 555 square miles in western Riverside County. The EMWD is both a retail and wholesale agency, serving a retail and wholesale population of approximately 800,000. The majority of the EMWD's supplies are imported water purchased through the Metropolitan Water District of Southern California from the State Water Project and the Colorado River Aqueduct. Imported water is delivered to the EMWD either as potable water treated by the Metropolitan Water District, or as raw water that the EMWD can either treat at one of its two local filtration plants or deliver as raw water for non-potable uses. The EMWD's local supplies include groundwater, desalinated groundwater, and recycled water. Groundwater is pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin. The EMWD owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water. The EMWD also owns, operates, and maintains its own recycled water system that consists of four regional water reclamation facilities and several storage ponds spread throughout the EMWD's service area that are all connected through the recycled water system. Per the EMWD's 2020 Urban Water Master Plan (UWMP), the EMWD has a combined retail and wholesale demand and supply forecast of 208,899-acre feet in 2025 and 214,899-acre feet in 2030. Water supply is expected to meet demand forecast through the 2040 UWMP planning horizon.

Agencies were required to demonstrate compliance with the 2020 interim water use target provided in the 2015 UWMP. In 2015, the EMWD's gross water use was 78,937 acre-feet. The EMWD's retail population in 2015 was estimated at 546,146. Therefore, the EMWD's actual 2015 per capita use was 129 gallons per customer per day, which is below the 2015 interim water use target of 187 gallons per customer per day. In the 2020 UWMP, agencies are required to demonstrate compliance with their confirmed 2020 Target amounts. The EMWD did not make any optional adjustments to its 2020 gross water use. The actual 2020 amount was 125 gallons per customer per day; the target was 176 gallons per customer per day. Thus, the actual use was below the target.

CalEEMod version 2022.1 estimated that the Project would use approximately 12,043,834 gallons (37 acre feet) of water annually or 32,997 gallons per day assuming a reduction of 20% over business as usual. The Project would connect to one of two existing 12-inch water lines in either Placentia Avenue or Perris Boulevard. Water demand associated with the Project would be less than one percent of projected demand for the service area. The Project would not necessitate expanding existing entitlements. Further, a will serve letter was provided by the EMWD stating that service would be provided. A **less than significant** impact would occur under this threshold.

d) The proposed Project would generate construction/demolition waste as well as ongoing domestic waste. Solid waste generated within the City of Perris is transferred to the El Sobrante Landfill in Corona or the Badlands Landfill in Moreno Valley. These solid waste facilities serving Riverside County have a combined remaining capacity of 151,777,170 tons. The Badlands Landfill is expected to close in 2026 while the El Sobrante Landfill has the capacity to remain open until 2051 (CalRecycle 2022). The El Sobrante Landfill has an approved maximum daily throughput of 16,052 tons daily.

It is presumed that construction waste would be comprised of concrete, metals, wood, landscape and typical domestic material. The California Integrated Waste Management Act of 1989 mandated that all cities and counties in California reduce solid waste disposed at landfills generated within their jurisdictions by 50%. AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that no less than 75% of solid waste be generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. Per the 2022 CALGreen Code, at least 65 percent of construction/demolition waste associated with the proposed Project would be recycled with the remainder sent to a landfill.

CalEEMod 2022.1 estimates the proposed Project would generate approximately 602 tons of solid annually (3,300 pounds daily) during operation. These estimates assume no solid waste would be recycled. If the Project were to recycle 75%, the policy goal of AB 341, the amount of solid waste landfilled would be approximately 150 tons annually. Assuming that the El Sobrante Landfill receives the waste, this would increase the total volumes going to landfill daily by less than 1 percent.

The amount of solid waste produced as a result of this Project is negligible compared to the capacity available at the two primary landfills. Compliance with County of Riverside waste reduction programs and policies would reduce the volume of solid waste entering landfills. Individual development projects would be required to comply with applicable state and local regulations which are focused on reducing the amount of landfill waste. Therefore, because there would be adequate landfill capacity in the region to accommodate Project-generated waste and the proposed Project would not generate a substantial quantity of solid waste, the potential impact would be **less than significant**.

e) The applicant and Project contractor would comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal as required by the California Integrated Waste Management Act of 1989, AB 341 and AB 1896. Specifically, AB 1896 requires that businesses and multifamily residential developments of five or more units divert organic waste. This is defined as compostable paper, food waste and landscape trimmings. Thus, recycling infrastructure will be required for organic (AB 1896) and non-organic (AB 341) waste and would help ensure that AB 341 recycling policy objectives are met. CR&R Environmental Services is the franchise hauler for the City of Perris and is responsible for providing collection cans, collecting the solid waste material, providing

recycling services and disposing of the solid waste in a landfill. Per the franchise agreement with the City of Perris, it is presumed that CR&R would follow all applicable federal, state, and local management and reduction statutes and regulations related to solid waste. A **less than significant** impact would occur under this threshold.

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

a-d) According to Figure S-05, Wildfire Hazards, of the City of Perris General Plan Safety Element, the Project site is located within a Local Responsibility Area and is not located in or near an area identified as being a Very High Fire Hazard Severity Zone (Perris, 2022). The

Project site is not within a State Responsibility Area for fire protection. Therefore, the Project would have no impacts related to wildfires or the associated issues identified in thresholds a through d, above. **No impact** would occur per thresholds a-d.

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

a) The project would be constructed on a undeveloped site. Removal of ruderal vegetation species would be required in some areas prior to construction particularly along the site perimeter. There are no threatened, endangered or sensitive plant or animal species occurring on the site. Implementation of Mitigation Measures BIO-1 and BIO-2 would avoid potential

impacts to nesting bird species and burrowing owls.

The project site has a low sensitivity to cultural or paleontological resources. Implementation of Mitigation Measures CUL-1, CUL-2, PAL-1, and PAL-2would avoid or minimize potentially significant impacts to previously undiscovered cultural, paleontological and tribal cultural resources. Potential impacts to cultural resources and paleontological resources would be **less than significant with mitigation incorporated**.

b) As presented in the discussion of environmental checklist Sections I through XX, the project would have no impact, a less than significant impact, or a potentially significant impact unless mitigation is incorporated with respect to all environmental issues. With implementation of Mitigation Measures AES-1, BIO-1, BIO-2, CUL-1, CUL-2, PAL-1, PAL-2 and NOI-1, NOI-2, NOI-3 and NOI-4, potentially significant impacts to aesthetics, biological resources, cultural resources, geology and soils (paleontological resources), noise, and tribal cultural resources would be reduced to **less than significant** levels. Pursuant to the 2018 update to the State CEQA Guidelines, level of service (LOS) and congestion may no longer be used to evaluate traffic and transportation impacts under CEQA. However, the transportation impacts of the proposed Project would not exceed the current thresholds of significance. Based on the limited scope of direct physical impacts to the environment associated with the proposed project, the impacts are project-specific in nature. Consequently, the project along with other cumulative projects would result in a **less than significant** cumulative impact with respect to all environmental issues with mitigation incorporated with the possible exception of air quality and GHG emissions. The cumulative impacts associated with air quality and GHG emissions will be evaluated in an EIR.

c) In general, impacts to human beings are associated with air quality, hazards and hazardous materials and noise. As presented in the environmental checklist discussions, the project would have noise impacts that can be mitigated to less than significant levels with implementation of Mitigation Measures NOI-1, NOI-2, NOI-3 and NOI-4. No significant or adverse impacts related to hazards or hazardous materials were identified. The proposed Project would have impacts to air quality and GHG emissions, both of which will be evaluated in an EIR.

REFERENCES

Birdseye Planning Group, *Vallarta Market Place Community Shopping Center, Air Quality/Greenhouse Gas Study*, October 2023.

Birdseye Planning Group, *Vallarta Market Place Community Shopping Center Noise Study*, October 2023.

California Environmental Protection Agency (CalEPA) and Department of Toxic Substances Control. *Envirostar database.* http://www.envirostor.dtsc.ca.gov/public/.

California Air Pollution Control Officers Association (CAPCOA). *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008

California Air Resources Board (CARB). *Proposed Early Actions to Mitigate Climate Change in California*. April 20, 2007

California Department of Conservation, Farmland Mapping and Monitoring Program, website visited, September 2023

California Department of Forestry and Fire Protection. *Riverside County Very High Fire Hazard Severity Zone Map -Murrieta,* December 2009.

California Department of Transportation. *Transportation-Related Earthborne Vibration, Technical Advisory*, September 2013.

California Department of Transportation. *Officially Designated State Scenic Highways,* website visited September 2023.

California Environmental Protection Agency. *Climate Action Team Report to the Governor and Legislature*, April 3, 2006

City of Perris. *Climate Action Plan*, 2016

City of Perris. *Perris Valley General Plan, Draft Environmental Impact Report (State Clearinghouse No. 2004031135)* April 2005

City of Perris. *General Plan Noise Element,* August 2016

City of Perris. *General Plan Safety Element, January 2022*

Eastern Municipal Water District, *2020 Urban Water Management Plan Update,* July 2021

Eastern Municipal Water District, *Perris Valley Regional Water Reclamation Facility Factsheet,* October 2016.

ELMT Consulting, Inc., *Habitat Assessment and MSHCP Consistency Analysis for the Proposed Retail Site Located within Assessor Parcel Number (APN) 300-260-001*, City of Perris, Riverside County, California. October 2023

Federal Emergency Management Agency. *Flood Insurance Rate Map No.* 0605C143OH, August 18, 2014.

Federal Transit Administrations (FTA). *Transit Noise and Vibration Impact Assessment,* September 2018

Mizuta Traffic Consulting, Inc., *Trip Generation and VMT Screening Analysis for the Proposed Vallarta Market Place Community Shopping Center Project*, August 2023

PaleoWest, LLC, *Cultural Resources Investigation in Support of Perris Market Place Project,* City of Perris, Riverside County, California. September 2024

PaleoWest, LLC, *Paleontological Resource Assessment for the Perris Marketplace Project*, City of Perris, Riverside County, California, October 2023

Riverside County Airport Land Use Compatibility Plan Policy Document, Map FV-1, January 2012.

South Coast AQMD. *Air Quality Management Plan*. 2016.

- *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. 2011

- *Final Localized Significant (LST) Thresholds Methodology,* revised July 2008.

State Water Resources Control Board, *Water Quality Control Plan for the San Diego Basin (9)*, September 1994, amended May 2016.

US Census Bureau, Quick Facts July 1, 2022 population estimate for Menifee city, California; Moreno Valley city, California; Perris city, California. (Available at https://www.census.gov/quickfacts/fact/table/menifeecitycalifornia,morenovalleycitycalifornia, perriscitycalifornia/PST045223, accessed July 24, 2024.)

Ventura Inland Engineering, Inc., *Preliminary Water Quality Management Plan, Santa Ana Region of Riverside County, Perris Vallarta*, August 2023.

Waste Management, Inc. El Sobrante Landfill Fact Sheet, 2014. https://www.wmsolutions.com/pdf/factsheet/El_Sobrante_Landfill.pdf

- *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. 2011

- *Final Localized Significant (LST) Thresholds Methodology*, revised July 2008.

Waste Management, Inc. El Sobrante Landfill Fact Sheet, 2014.
https://www.wmsolutions.com/pdf/factsheet/El_Sobrante_Landfill.pdf

Western Riverside Council of Governments, Subregional Climate Action Plan, September 2014.
https://wrcog.us/DocumentCenter/View/188/Subregional-Climate-Action-Plan-CAP-PDF?bidId=

October 4, 2023

BIRDSEYE PLANNING GROUP
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SUBJECT: **Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis for the Proposed Retail Site Located within Assessor Parcel Number (APN) 300-260-001 in the City of Perris, Riverside County, California**

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis for the proposed project (project site or site) located in the City of Perris, Riverside County, California. The field investigation was conducted by biologists Jacob H. Lloyd Davies on June 19, 2023, to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the proposed project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the on-site habitat to support special-status species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and other electronic databases as potentially occurring on or within the general vicinity of the project site.

The Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map was queried to determine if the MSHCP identifies any potential survey requirements for the project. Further, the project site was reviewed against the MSHCP to determine if the site is located within any MSHCP areas including Criteria Cells (core habitat and wildlife movement corridors) or areas proposed for conservation. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is located within the Mead Valley Area Plan of the MSHCP but is not located within any Criteria Cells or MSHCP Conservation Areas. Further, it was determined that the project site is not located within any MSHCP designated species survey areas.

Project Location

The project site is generally located east of Interstate 215, south of State Route 60, southwest of Lake Perris, and north of State Route 74 in the City of Perris, Riverside County, California. The site is depicted on the Perris quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map within Section 17 of Township 4 South, Range 3 West. Specifically, the proposed project site is located at the

1 As used in this report, "special-status" refers to plant and wildlife species that are federally, State, and MSHCP listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

southeast corner of the intersection of North Perris Boulevard and Placentia Avenue within Assessor Parcel Number 300-260-001. Refer to Exhibits 1-3 in Attachment A.

Project Description

The project proposes the development of a commercial retail center with associated parking and infrastructure on approximately 10.45 acres and improvements to adjacent portions of Placentia Avenue. Refer to Attachment B, *Site Plan*.

Methodology

Literature Review

The first step in determining if a project is consistent with the above listed sections of the MSHCP is to conduct a literature review and records search for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project were determined through a query of the CDFWs CNDDB Rarefind 5, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, United States Fish and Wildlife Service (USFWS) species listings, and species covered within the MSHCP and associated technical documents.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred on the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Environmental Protection Agency (EPA) Water Program "My Waters" data layers
- Google Earth Pro historic aerial imagery (1994-2023);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey[2];
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- USFWS National Wetlands Inventory (NWI);
- Stephen's Kangaroo Rat Habitat Conservation Plan;
- Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map; and
- 2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area.

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the project site. The CNDDB database was used, in conjunction with ArcGIS software, to

2 A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

locate the nearest recorded occurrences of special-status species and determine the distance from the project.

Field Investigation

Following the literature review, biologists Jacob H. Lloyd Davies inventoried and evaluated the condition of the habitat within the project site on June 19, 2023. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field survey.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field survey and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field survey using the USDA NRCS Soil Survey for Western Riverside Area, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were delineated on an aerial photograph, classified in accordance with those described in the MSHCP, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

Plants

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less-familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during

the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Existing Site Condition

The project site is located in a primarily developed portion of the City of Perris. Historically, land uses within and surrounding the project site supported large-scale agricultural operations, some of which persist in a limited capacity. The site is bounded to the north by Placentia Avenue with residential developments beyond; to the east and south by residential development; and to the west by North Perris Boulevard with commercial development and undeveloped, vacant land beyond. The site itself supports undeveloped, vacant land and portions of North Perris Boulevard and Placentia Avenue. According to historic aerials, the site supported some development related to adjacent agricultural operations until at least 1985, with the site remaining in its current state since at least 1997.

Topography and Soils

The project site is located at an approximate elevation of 1,443 to 1,450 feet above mean sea level. On-site topography is generally flat limited topographic relief where fill dirt and spoils were left following the completion of construction projects in the area. Based on the NRCS USDA Web Soil Survey, the project site is underlain by Exeter sandy loam (0 to 2 percent slopes) and Ramona sandy loam (0 to 2 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, grading activities and on-site surrounding development).

Vegetation

Due to historic and existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project site. The site supports one (1) plant community: non-native grassland; in addition, the site supports two (2) land cover types that would be classified as disturbed and developed. Refer to Attachment C, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed project.

A non-native grassland plant community is supported throughout the site, consolidated mainly to site boundaries that are impacted by routine weed abatement activities. This plant community is dominated by non-native grasses such as slim oat (*Avena barbata*) and soft chess (*Bromus hordaceus*) and supports primarily non-native weedy/early successional species. Common plant species observed in the non-native grassland supported on-site include Spanish lotus (*Acmispon americanus*), nettleleaf goosefoot (*Chenopodium murale*), dove weed (*Croton setiger*), cryptantha species (*Cryptantha* sp.), flax-leaved horseweed (*Erigeron bonariensis*), mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), stinknet (*Oncosiphon pilulifer*), prostrate knotweed (*Polygonum aviculare*), Russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus barbatus*), and puncture vine (*Tribulis terrestris*).

Disturbed land is present throughout the site and supports the same species observed in the non-native grassland plant community but lacks regular dominance of any single group of species. Developed land is present along the northern and western boundaries of the site where site boundaries overlap with existing portions of Placentia Avenue and North Perris Boulevard. Developed areas support non-native ornamental landscaping and are maintained to be free of incidental species.

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

Fish

The MSHCP does not identify any covered or special-status fish species as potentially occurring within the project site. Further, no fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the site. Therefore, no fish are expected to occur and are presumed absent.

Amphibians

The MSHCP does not identify any covered or special-status amphibian species as potentially occurring within the project site. Further, no amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the site. Therefore, no amphibians are expected to occur.

Reptiles

The MSHCP does not identify any covered or special-status reptilian species as potentially occurring within the project site. The site provides a limited amount of habitat for reptile species adapted to a high degree of human disturbance associated with the on-site weed abatement activities and development. The only reptilian species observed on site was Great Basin fence lizard (*Sceloporus occidentalis longipes*). Additional common reptilian species that could be expected to occur on-site include common side-blotched lizard (*Uta stansburiana elegans*). Due to the high level of anthropogenic disturbances and surrounding development, no special-status reptilian species are expected to occur within project site.

Birds

The project site provides moderate foraging habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field survey include Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Eurasian collared dove (*Streptopelia decaocto*), and mourning dove (*Zenaida macroura*).

Mammals

The MSHCP does not identify any covered or special-status mammalian species as potentially occurring within the project site. Mammalian species detected include coyote (*Canis latrans*), pocket gopher (*Thomomys bottae*), and domestic cat (*Felis catus*). Other common mammalian species that could be expected to occur include possum (*Didelphis virginiana*) and raccoon (*Procyon lotor*). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices).

Nesting Birds and Raptors

No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted during breeding season. Although subjected to routine disturbance, the plant communities and land cover types supported on-site, including ornamental vegetation along North Perris Boulevard, have the potential to provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted prior to the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site has not been identified as occurring in a wildlife corridor or linkage. The proposed project will be confined to existing areas that have been heavily disturbed and are isolated from regional wildlife corridors and linkages. In addition, there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the site to a recognized wildlife corridor or linkage. As such, implementation of the proposed project is not expected to impact wildlife movement opportunities. Therefore, impacts to wildlife corridors or linkages are not expected to occur.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage and/or wetland features were observed on the project site or within the during the field investigation. Further, no blueline streams have been recorded on the project site. Therefore, development of the project will not result in impacts to Corps, Regional Board, or CDFW jurisdiction and regulatory approvals will not be required.

Special-Status Biological Resources

The CNDDB was queried for reported locations of special-status plant and wildlife species as well as natural communities of special concern in the Perris USGS 7.5-minute quadrangle. A search of published records within this quadrangle was conducted using the CNDDB Rarefind 5 online software and the CDFW BIOS database and the CNPS Inventory of Rare and Endangered Plants of California that supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified fifteen (15) special-status plant species and seventy-five (75) special-status wildlife species Perris quadrangle. No special-status habitats were identified as having potential to occur. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity are presented in *Table D-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment D. Refer to Table D-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

Special-Status Plants

According to the CNDDB and CNPS, fifteen (15) special-status plant species have been recorded in the Perris quadrangle (refer to Attachment D). No special-status plants were observed on the project site during the field investigation. The project site is heavily disturbed and no longer support native plant communities that have the potential to provide suitable habitat for special-status plant species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site does not have potential to support any of the special-status plant species known to occur in the vicinity and all are presumed absent.

Special-Status Wildlife

According to the CNDDB, seventy-five (75) special-status wildlife species have been reported in the Perris quadrangle (refer to Attachment D). No special-status wildlife species were observed on-site during the

field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a moderate potential to support Costa's hummingbird (*Calypte costae*); and a low potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), and California horned lark (*Eremophila alpestris actia*).

None of the aforementioned species are federally or state listed as endangered or threatened. Of the aforementioned species, only Costa's hummingbird and California horned lark might be expected to nest on-site. Cooper's hawk is not expected to nest on-site due to the lack of suitable nesting opportunities and sharp-shinned hawk is not expected to nest on-site due to the site occurring outside of the geographic breeding range of this species.

In order to ensure impacts to special-status avian species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to special-status avian species will be less than significant and no mitigation will be required.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat (refer to Exhibit 6, *Critical Habitat*, in Attachment A). The closest designated Critical Habitat is located approximately 2.9 miles to the southeast of the site for spreading navarretia (*Navarretia fossalis*) along the San Jacinto River. Therefore, the loss or adverse modification of Critical Habitat will not occur as a result of the proposed project and consultation with the USFWS will not be required for implementation of the proposed project.

Western Riverside County MSHCP

The project site is located within the Mead Valley Area Plan of the MSHCP but is not located within any Criteria Cells or MSHCP Conservation Areas (refer to Exhibit 7, *MSHCP Criteria Area*, in Attachment A). Further, the project site is not located within any designated species survey areas as depicted in Figures 6-4 within Section 6.3.2 of the MSHCP.

Since the City is a permittee under the MSHCP and, while the project is not specifically identified as a Covered Activity under Section 7.1 of the MSHCP, public and private development that are outside of

Criteria Areas and Public/Quasi-Public (PQP) Lands are permitted under the MSHCP, subject to consistency with MSHCP policies that apply to area outside of Criteria Areas. As such, to achieve coverage, the project must be consistent with the following policies of the MSHCP:

- The policies for the protection of species associated with Riparian/Riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP;
- The policies for the protection of Narrow Endemic Plant Species as set forth in Section 6.1.3 of the MSHCP;
- The requirements for conducting additional surveys as set forth in Section 6.3.2 of the MSHCP;
- Guidelines pertaining to the Urban/Wildlands Interface intended to address indirect effects associated with locating Development in proximity to the MSHCP Conservation Area as detailed in Section 6.1.4 of the MSHCP.

Riparian/Riverine Areas

As identified in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools,* riparian/riverine areas are defined as areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. If impacts to riparian/riverine habitat cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be developed to address the replacement of lost functions of habitats in regard to the listed species. This assessment is independent from considerations given to "waters of the U.S." and "waters of the State" under the CWA and the California Fish and Game Code.

No jurisdictional drainages, riparian/riverine and/or wetland features were observed within the project site during the field investigation. Development of the proposed project will not result in impacts to riparian/riverine habitats and a DBESP will not be required for the loss of riparian/riverine habitat from development of the proposed project. Therefore, the project is consistent with Section 6.1.2 of the MSHCP.

Vernal Pools and Fairy Shrimp Habitat

One of the factors for determining the suitability of the habitat for fairy shrimp would be demonstrable evidence of seasonal ponding in an area of topographic depression that is not subject to flowing waters. These astatic pools are typically characterized as vernal pools. More specifically, vernal pools are seasonal wetlands that occur in depression areas without a continual source of water. They have wetland indicators of all 3 parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season. The determination that an area exhibits vernal pool characteristics and the definition of the watershed supporting vernal pool hydrology is made on a case-by-case basis. Such determinations should be considered the length of time the areas exhibit upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. The seasonal hydrology of vernal pools provides for a unique environment, which supports plants and invertebrates specifically adapted to a regime of winter inundation, followed by an extended period when the pool soils

are dry.

Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp.

The MSHCP lists two general classes of soils known to be associated with listed and special-status plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with listed and special-status species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the special-status plant or wildlife species associated with vernal pools can occur on the project site. None of these soils have been documented within the project site.

A review of recent and historic aerial photographs (1994-2023) of the project site did not provide visual evidence of an astatic or vernal pool conditions within the project site. No ponding was observed, further supporting the fact that the drainage patterns currently occurring on the project site do not follow hydrologic regimes needed for vernal pools. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring within the proposed project site. Therefore, the project is consistent with Section 6.1.2 of the MSHCP.

Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is not located within the designated survey area for Narrow Endemic Plant Species. Through the field investigation, it was determined that the project site does not provide suitable habitat for any of the Narrow Endemic Plant Species listed under Section 6.1.3 of the MSHCP, and, therefore, the project is consistent with Section 6.1.3 of the MSHCP. No additional surveys or analysis is required.

Additional Survey Needs and Procedures

In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional surveys may be needed for certain species in order to achieve coverage for these species. The query of the RCA MSHCP Information Map and review of the MSHCP determined that the project site is not located within any designated survey areas and no further surveys related for Section 6.3.2 species are required.

Urban/Wildlands Interface Guidelines

Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface,* is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The Urban/Wildlife Interface Guidelines are intended to ensure that indirect project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The project site is not located within or immediately adjacent to any Criteria Cells, corridors, or linkages. The urban/Wildlands Interface Guidelines do not apply to this project, and, therefore, the project is consistent with Section 6.1.4 of the MSHCP.

Stephen's Kangaroo Rat Habitat Conservation Plan

Separate from the consistency review against the policies of the MSHCP, Riverside County established a boundary in 1996 for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and state threatened species. The Stephens' kangaroo rat is protected under the Stephens' Kangaroo Rat Habitat Conservation Plan (County Ordinance No. 663.10; SKR HCP). As described in the MSHCP Implementation Agreement, a Section 10(a) Permit, and California Fish and Game Code Section 2081 Management Authorization were issued to the Riverside County Habitat Conservation Agency (RCHCA) for the Long-Term SKR HCP and was approved by the USFWS and CDFW in August 1990 (RCHCA 1996). Relevant terms of the SKR HCP have been incorporated into the MSHCP and its Implementation Agreement. The SKR HCP will continue to be implemented as a separate HCP; however, to provide the greatest conservation for the largest number of Covered Species, the Core Reserves established by the SKR HCP are managed as part of the MSHCP Conservation Area consistent with the SKR HCP. Actions shall not be taken as part of the implementation of the SKR HCP that will significantly affect other Covered Species. Take of Stephens' kangaroo rat outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.

The project site is located within the Mitigation Fee Area of the SKR HCP. Therefore, the applicant will be required to pay the SKR HCP Mitigation Fee prior to development of the project site.

Conclusion

Based on the literature review and field survey, implementation of the project will have no significant impacts on federally, State, or MSHCP listed species known to occur in the general vicinity of the project site. Additionally, the project will have no effect on designated Critical Habitat because none exists within the area. No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. Additionally, the project site is not located within or adjacent to any criteria cell, and no riparian/riverine resources or vernal pools were found onsite. Therefore, the proposed project is consistent with Section 6.1.2 of the MSHCP. With completion of recommendations, and payment of the MSHCP Local Development Mitigation Fee, and Stephen's kangaroo rat mitigation fee, development of the project site is fully consistent with the MSHCP.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions regarding this proposal.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

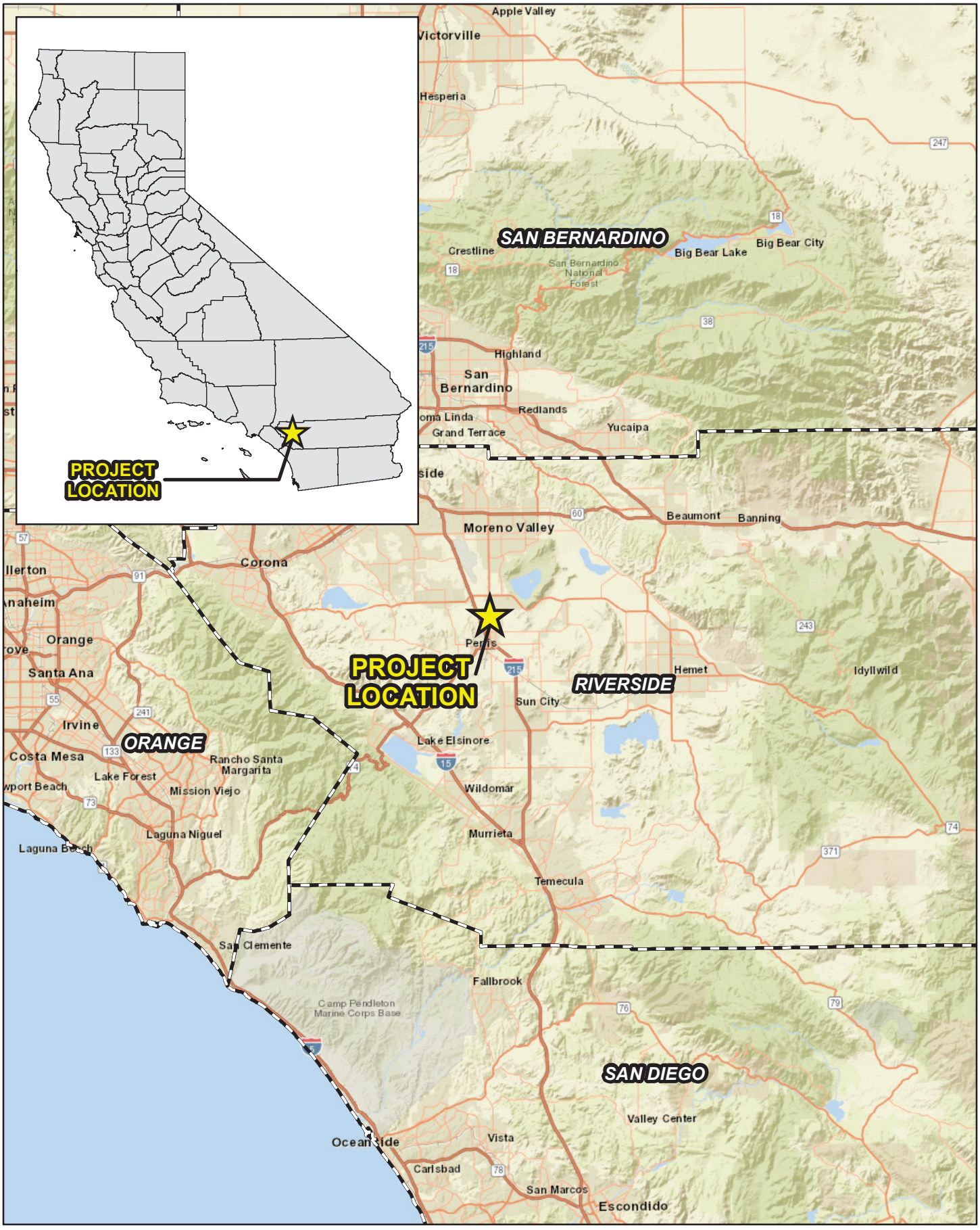
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Conceptual Site Plan*
C. *Site Photographs*
D. *Potentially Occurring Special-Status Biological Resources*
E. *Regulations*

Attachment A

Project Exhibits

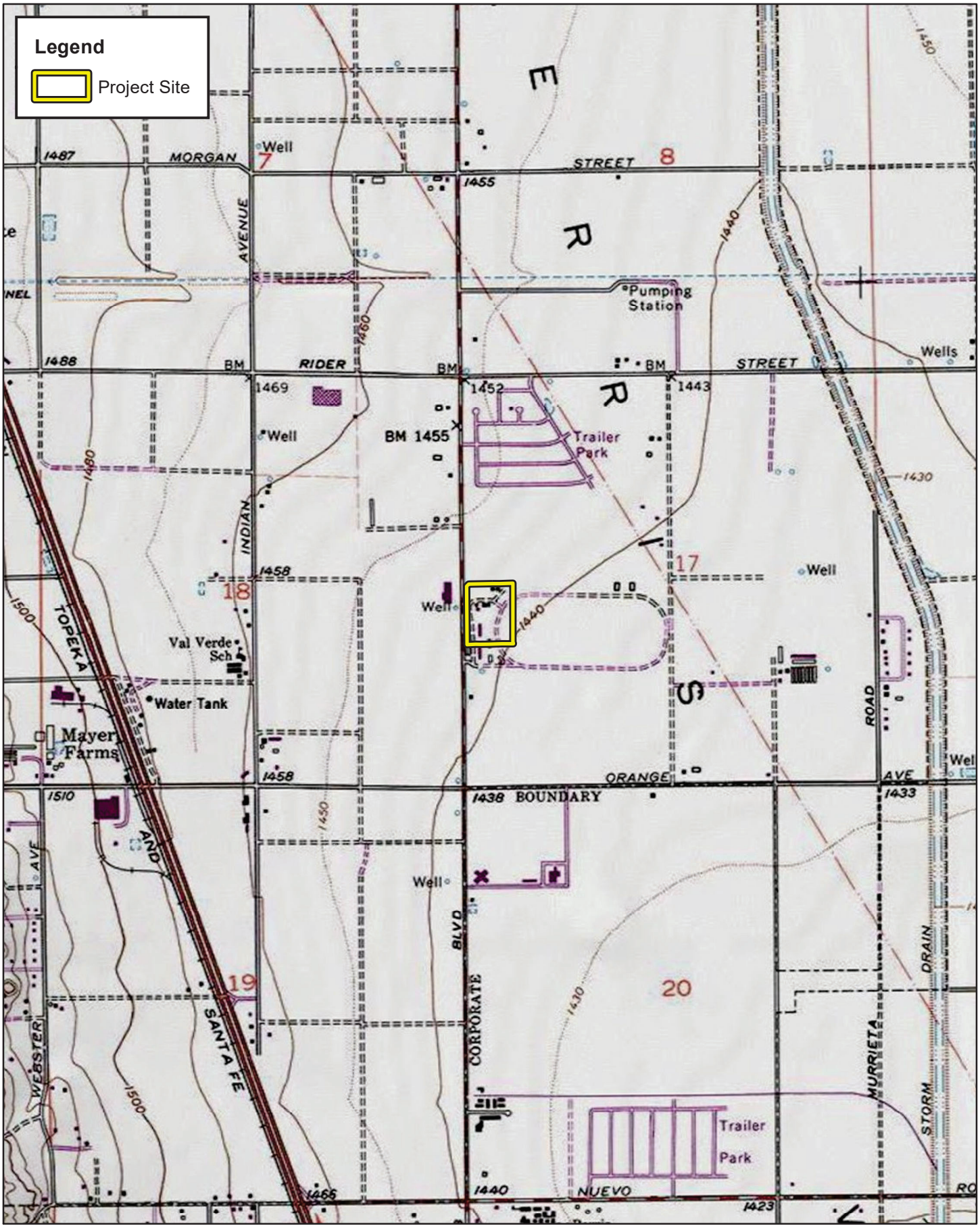


HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

Regional Vicinity

Source: World Street Map, Riverside County

Exhibit 1



HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

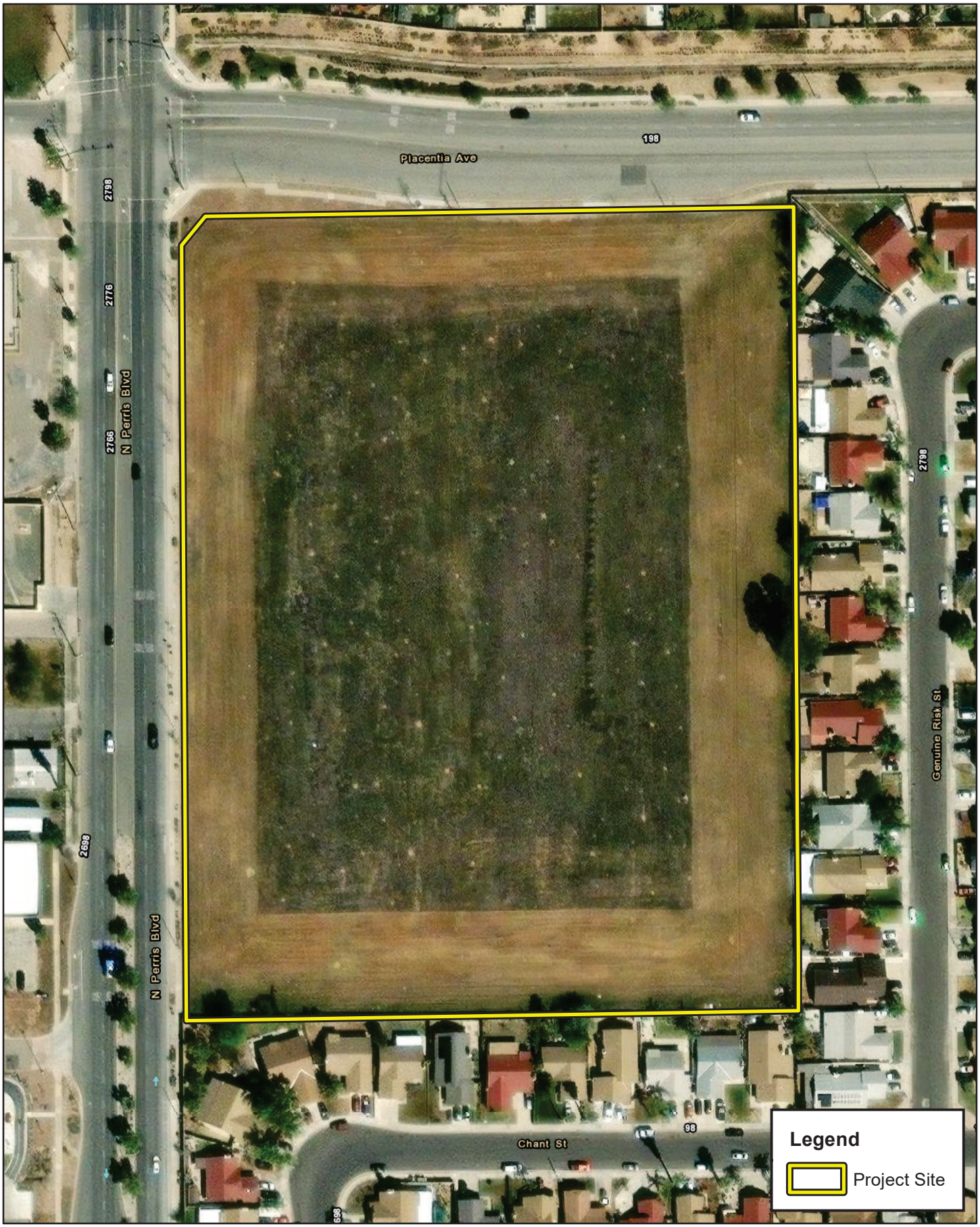
ELMT CONSULTING

0 1,000 2,000 4,000 Feet

Source: USA Topographic Map, Riverside County

Site Vicinity

Exhibit 2



HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

Project Site

ELMT CONSULTING

0 125 250 500 Feet

Source: ESRI Aerial Imagery, Riverside County

Exhibit 3

HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

ELMT CONSULTING

0 125 250 500 Feet

Soils

Source: ESRI Aerial Imagery, Soil Survey Geographic Database, Riverside County

Exhibit 4

HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

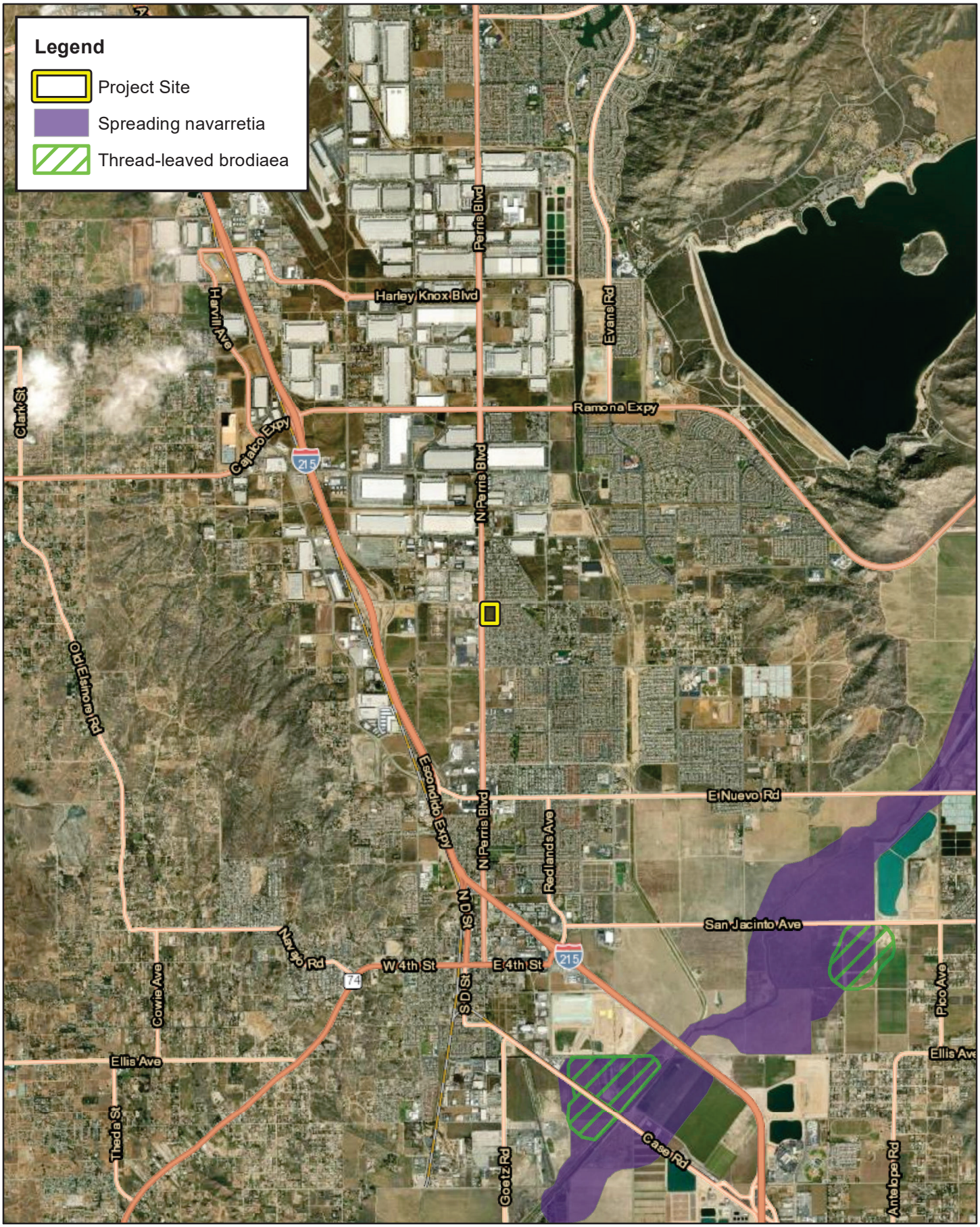
ELMT CONSULTING

0 125 250 500 Feet

Vegetation

Source: ESRI Aerial Imagery, Riverside County

Exhibit 5



HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

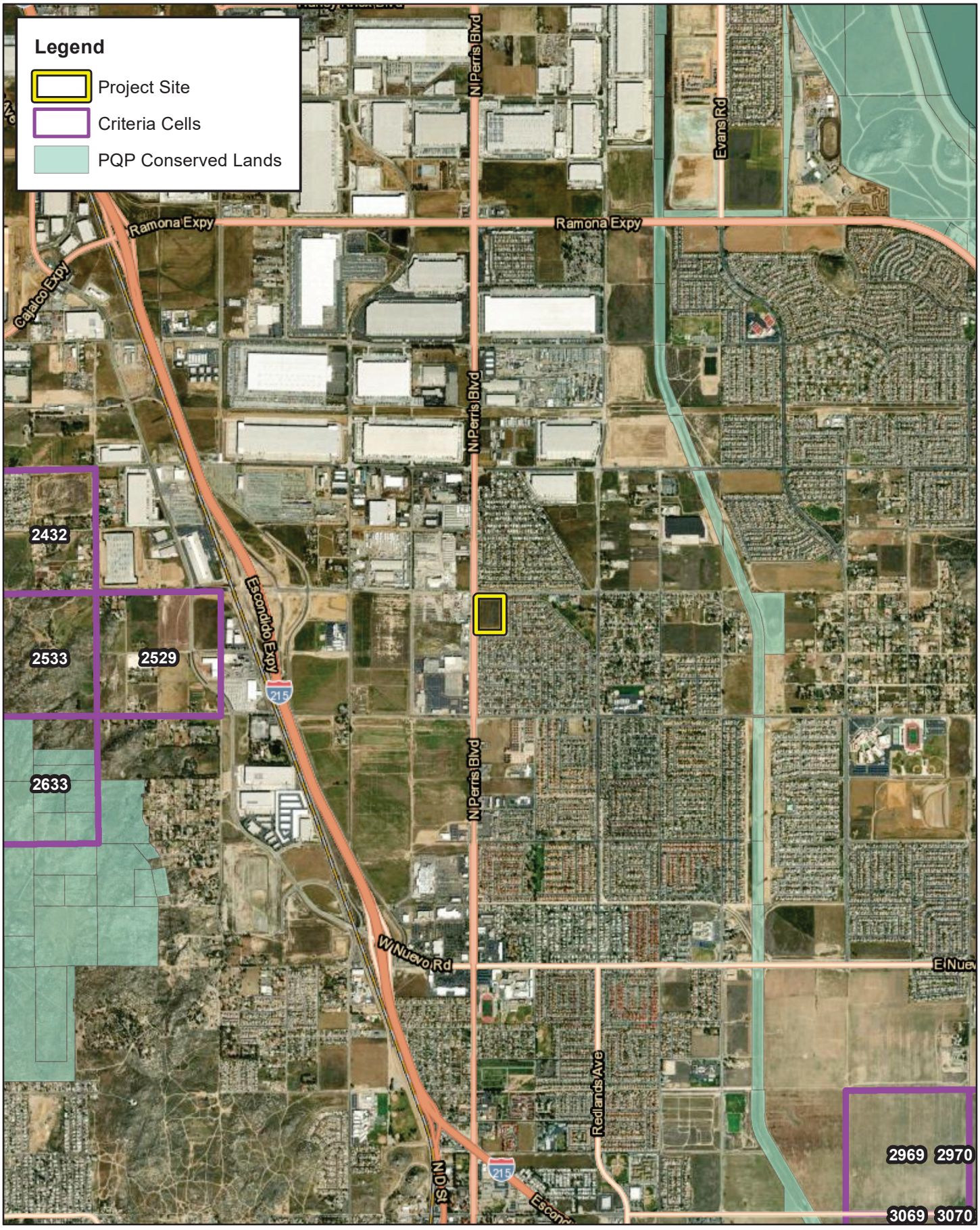
ELMT CONSULTING

0 1 2 4 Miles

Critical Habitat

Source: ESRI Aerial Imagery, USFWS Critical Habitat, Riverside County

Exhibit 6



HABITAT ASSESSMENT AND MSHCP CONSISTENCY ANALYSIS
PERRIS RETAIL

MSHCP Criteria Area

ELMT CONSULTING

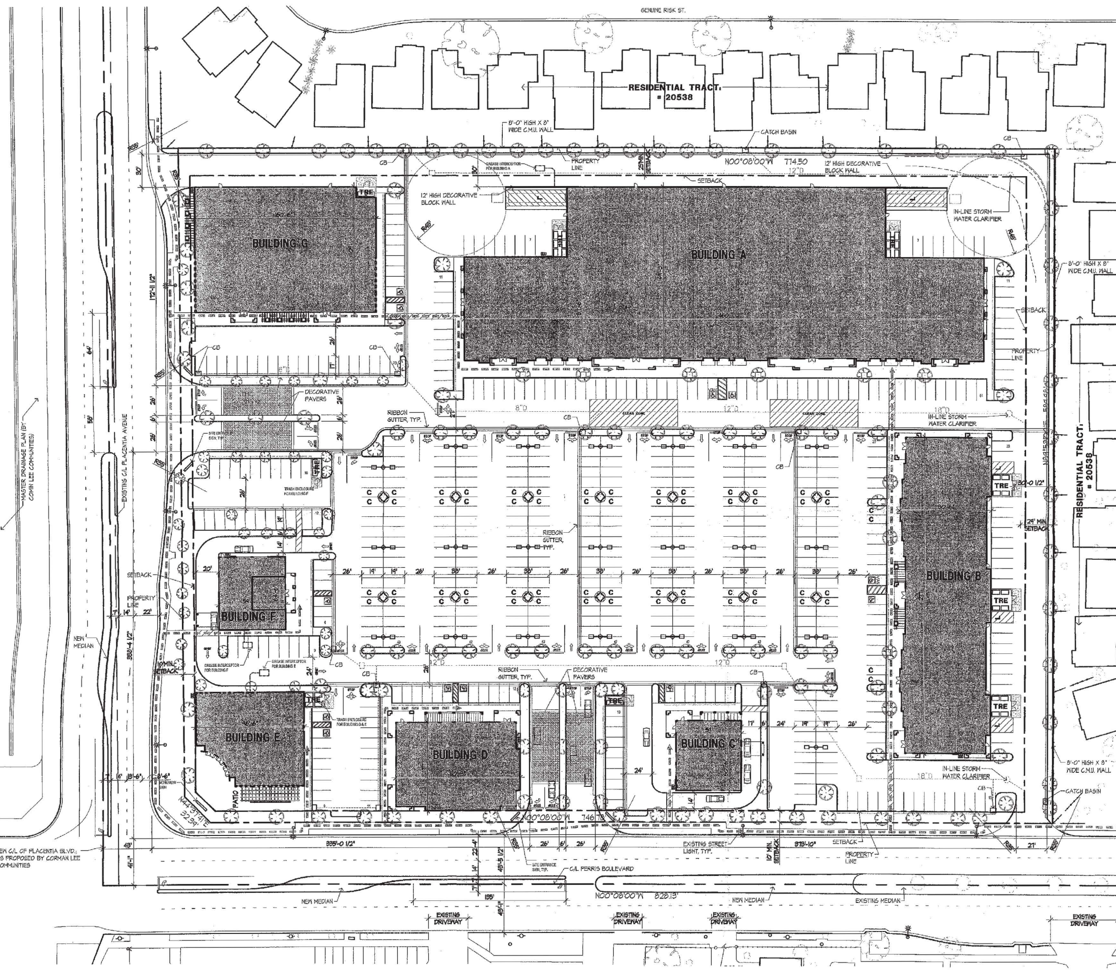
0 0.5 1 2 Miles

Source: ESRI Aerial Imagery, Riverside County

Exhibit 7

Attachment B

Site Plan



SITE PLAN

N SCALE: 1" = 40'

PROJECT INFORMATION

SITE SUMMARY

	DEVELOPMENT STANDARD	COMPLIANCE
MINIMUM SITE AREA:	1 ACRE	10.455 ACRES (455,425.25 SQ. FT.)
MAXIMUM SITE COVERAGE:	50%	26% (119,662 SQ. FT.)
MAXIMUM BUILDING HEIGHT:	45'	45'
BUILDING SETBACKS:		
PERRIS BLVD.:	10'	10' MINIMUM
PLACENTIA AVE.:	10'	10' MINIMUM
SIDE:	30'	50' MINIMUM
REAR:	30'	27' MINIMUM

LAND USE

EXISTING LAND USE:		UNDEVELOPED
PROPOSED LAND USE:		COMMUNITY SHOPPING CENTER
ADJACENT LAND USE (WITHIN 100' RADIUS):	NORTH:	UNDEVELOPED (FUTURE RESIDENTIAL)
	SOUTH:	RESIDENTIAL
	EAST:	RESIDENTIAL
	WEST:	COMMERCIAL
ZONING:		COMMUNITY COMMERCIAL
BUILDING TYPE:		V-N, FULLY SPRINKLERED
TOTAL BUILDING AREA:		119,662 SQ. FT.
SCOPE OF WORK:		NEW SHOPPING CENTER: SHELL AND SITE WORK ONLY

LEGAL DESCRIPTION

LOT 156, OF TRACT NO. 20538-2, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 202, PAGES 12 TO 22, INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

ASSESSOR'S PARCEL #: 306-030-022

GOVERNING CODES:

1997 UBC AND 2001 CALIFORNIA AMENDMENTS (2001 CALIFORNIA BUILDING CODE, PART 2, TITLE 24, CCR)
1999 NEC AND 2001 CALIFORNIA AMENDMENTS (2001 CALIFORNIA ELECTRICAL CODE - PART3, TITLE 24, CCR)
2000 UMC AND 2001 CALIFORNIA AMENDMENTS (2001 CALIFORNIA MECHANICAL CODE - PART 4, TITLE 24, CCR)
2000 UPC AND 2001 CALIFORNIA AMENDMENTS (2001 CALIFORNIA PLUMBING CODE - PART 5, TITLE 24, CCR)
2001 UFC AND 2001 CALIFORNIA AMENDMENTS (2001 CALIFORNIA FIRE CODE - PART 9, TITLE 24, CCR)
ALL LOCAL CODES AND ORDINANCES

PARKING

STANDARD PARKING	REQUIRED	PROVIDED
STANDARD DISABLED PARKING:		10
VAN ACCESSIBLE PARKING:		2
TOTAL DISABLED PARKING:	12	12
FULL SIZE PARKING SPACES:		507
COMPACT PARKING SPACES:		60
TOTAL STANDARD PARKING:		567
TOTAL PARKING SPACES:	548	579
LOADING ZONE PARKING		
STANDARD LOADING SPACES:		3
SEMI-TRAILER LOADING SPACES:		2
TOTAL LOADING ZONE SPACES:	5	5

LANDSCAPE COVERAGE

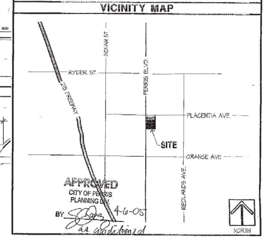
TOTAL SITE AREA:	10.455 ACRES (455,425.25 SQ. FT.)
LANDSCAPE AREA PROVIDED:	29,437 SQ. FT.
PERCENT LANDSCAPE PROVIDED:	6.5% (7% MIN. REQUIRED)
PARKING LOT PLANTING	
SURFACE PARKING (SPACES):	604
TREES REQUIRED:	101
TREES PROVIDED:	103

PARKING LOT TREES REQUIRED AT A RATIO OF ONE (1) FOR EVERY SIX (6) PARKING SPACES.

LEGEND

TRE	TRASH ENCLOSURE
C	COMPACT PARKING SPACE
L	LOADING SPACES
	PEDESTRIAN PATH OF TRAVEL
CB	CATCH BASIN WITH DROP INLET FILTER

VICINITY MAP



Project: **PERRIS MARKETPLACE SHOPPING CENTER**
PERRIS BLVD. & PLACENTIA AVE.
PERRIS, CA

Sheet Title: **SITE PLAN**

Job No.:	0362PER
Drawn By:	PDG
Project Architect:	PDG
Checked By:	PDG
File Name	362-SITE.dwg
Plot Date	Apr 06, 2005

Sheet No.: **A-1.0**

No. Date Revision

Consultant:

Attachment C

Site Photographs

Photograph 1: From the northwest corner of the project site looking south along the western boundary.

Photograph 2: From the northwest corner of the project site looking east along the northern boundary.

Photograph 3: From the northeast corner of the project site looking west along the northern boundary.

Photograph 4: From the northeast corner of the project site looking south along the eastern boundary.

Photograph 5: From the southeast corner of the project site looking north along the eastern boundary.

Photograph 6: From the southeast corner of the project site looking west along the southern boundary.

Photograph 7: From the southwest corner of the project site looking east along the southern boundary.

Photograph 8: From the southwest corner of the project site looking north along the western boundary.

Attachment D

Potentially Occurring Special-Status Biological Resources

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
WILDLIFE SPECIES					
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	Yes	No	**Low** Suitable foraging habitat is present within and surrounding the project site. Suitable nesting opportunities may be present nearby. This species is adapted to urban environments and occurs commonly.
Accipiter striatus sharp-shinned hawk	Fed: None CA: WL	Found in pine, fir and aspen forests. They can be found hunting in forest interior and edges from sea level to near alpine areas. Can also be found in rural, suburban and agricultural areas, where they often hunt at bird feeders. Typically found in southern California in the winter months.	Yes	No	**Low** Suitable foraging habitat is present within and surrounding the project site. This species does not nest in this region. This species is adapted to urban environments and occurs commonly.
Agelaius tricolor tricolored blackbird	Fed: None CA: **THR**/SSC	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, protected nesting substrate (freshwater marsh dominated by cattails, willows, and bulrushes [*Schoenoplectus* sp.]), and either flooded or thorny or spiny vegetation and suitable foraging space providing adequate insect prey.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Ammodramus savannarum grasshopper sparrow	Fed: None CA: SSC	Occurs in grassland, upland meadow, pasture, hayfield, and old field habitats. Optimal habitat contains short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs. May inhabit thickets, weedy lawns, vegetated landfills, fence rows, open fields, or grasslands.	Yes (e)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Anniella stebbinsi southern California legless lizard	Fed: None CA: SSC	Occurs in sparsely vegetated habitat types including coastal sand dunes, chaparral, pine-oak woodland, desert scrub, open grassland, and riparian areas. Requires sandy or loose loamy substrates conducive to burrowing.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aquila chrysaetos golden eagle	Fed: None CA: FP/WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea alba great egret	Fed: None CA: None	Yearlong resident throughout California, except for the high mountains and deserts. Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea herodias great blue heron	Fed: None CA: None	Forages along streams, marshes, lakes, and meadows. Nests colonially in tall trees (typically Eucalyptus sp.), on cliffsides, or in isolated spots in marshes.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Arizona elegans occidentalis California glossy snake	Fed: None CA: SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Artemisiospiza belli belli Bell's sparrow	Fed: None CA: WL	Generally prefers semi-open habitats with evenly spaced shrubs 1 – 2 meters in height. Dry chaparral and coastal sage scrub. Less common in tall dense, old chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Asio otus long-eared owl	Fed: None CA: SSC	Hunts mostly at night over grasslands and other open habitats. Nesting occurs in dense trees such as oaks and willows where it occupies stick nests of other species, particularly raptors or corvids.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Aspidoscelis hyperythra orangethroat whiptail	Fed: None CA: WL	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SCC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Athene cunicularia burrowing owl	Fed: None CA: SSC	Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon fossorial mammals for burrows, most notable ground squirrels.	Yes (c)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aythya americana redhead	Fed: None CA: SSC	Typically found in shallow freshwater lakes, ponds, and marshes.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Bombus crotchii Crotch bumblebee	Fed: None CA: CE	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Bombus pensylvanicus American bumblebee	Fed: None CA: None	Found in desert habitats and adjacent areas. Prefers farmlands, grasslands, and open fields. Nests embedded in grass or belowground.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Buteo regalis ferruginous hawk	Fed: None CA: WL	Occurs primarily in open grasslands and fields, but may be found in sagebrush flats, desert scrub, low foothills, or along the edges of pinyon-juniper woodland. Feeds primarily on small mammals and typically found in agricultural or open fields.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Buteo swainsoni Swainson's hawk	Fed: None CA: **THR**	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Calypte costae Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	No	**Moderate** Suitable foraging habitat is present within and surrounding the project site. Limited nesting habitat is present on-site; higher quality nesting habitat likely occurs nearby. This species is adapted to urban environments and occurs commonly.
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chaetura vauxi Vaux's swift	Fed: None CA: SSC	Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned-out snags. Fairly common migrant throughout most of the state in April and May, and August and September.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Charadrius montanus mountain plover	Fed: None CA: SSC	Found in short grasslands, freshly plowed fields, newly-sprouting grain fields, and sometimes in sod farms. Prefers short vegetation or bare ground with flat topography, particularly grazed areas or areas with fossorial rodents.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Circus hudsonius northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: None CA: SCC	Occurs in coastal and cismontane southern California from interior Ventura County south, although it is absent from the extreme outer coast. It is uncommon in coastal scrub and chaparral, most often occurring in granite or rocky outcrops in these habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Crotalus ruber red-diamond rattlesnake	Fed: None CA: SSC	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake; however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Diadophis punctatus modestus San Bernardino ringneck snake	Fed: None CA: None	Common in open, relatively rocky areas within valley-foothill, mixed chaparral, and annual grass habitats.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Diadophis punctatus similis San Diego ringneck snake	Fed: None CA: None	Prefers moist habitats, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Dipodomys simulans Dulzura kangaroo rat	Fed: None CA: None	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Dipodomys stephensi Stephens' kangaroo rat	Fed: **THR** CA: **THR**	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Egretta thula snowy egret	Fed: None CA: None	Widespread in California along shores of coastal estuaries, fresh and saline emergent wetlands, ponds, slow-moving rivers, irrigation ditches, and wet fields. In southern California, common yearlong in the Imperial Valley and along the Colorado River.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Empidonax traillii willow flycatcher	Fed: None CA: **END**	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Empidonax traillii extimus southwestern willow flycatcher	Fed: **END** CA: **END**	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water or are at least moist.	Yes (a)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Emys marmorata western pond turtle	Fed: None CA: SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet (1,800 m).	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Generally found in shortgrass prairies, grasslands, disturbed fields, or similar habitat types along the coast or in deserts. Trees are shrubs are usually scarce or absent. Generally rare in montane, coniferous, or chaparral habitats. Forms large flocks outside of the breeding season.	Yes	No	**Low** Suitable foraging habitat and limited nesting habitat are present within and surrounding the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Eumops perotis californicus western mastiff bat	Fed: None CA: SSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Falco columbarius merlin	Fed: None CA: WL	Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Falco mexicanus prairie falcon	Fed: None CA: WL	Commonly occur in arid and semiarid shrubland and grassland community types. Also occasionally found in open parklands within coniferous forests. During the breeding season, they are found commonly in foothills and mountains which provide cliffs and escarpments suitable for nest sites.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Falco peregrinus anatum American peregrine falcon	Fed: DL CA: DL; FP	Uncommon winter resident of the inland region of southern California. Active nesting sites are known along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. Breeds mostly in woodland, forest, and coastal habitats. Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Haliaeetus leucocephalus bald eagle	Fed: DL CA: **END**; FP	Occur primarily at or near seacoasts, rivers, swamps, and large lakes. Need ample foraging opportunities, typically near a large water source.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Hydroprogne caspia Caspian tern	Fed: None CA: None	Occurs near large lakes, coastal waters, beaches, and bays. Found on both fresh and salt water, favoring protected waters such as bays and lagoons, rivers, not usually foraging over open sea. Nests on open ground on islands, coasts.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Icteria virens yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Larus californicus California gull	Fed: None CA: WL	Require isolated islands in rivers, reservoirs and natural lakes for nesting, where predations pressures from terrestrial mammals are diminished. Uses both fresh and saline aquatic habitats at variable elevations and degrees of aridity for nesting and for opportunistic foraging.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Lasiurus xanthinus western yellow bat	Fed: None CA: SSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: None	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lynx rufus pallescens pallid bobcat	Fed: None CA: None	Found on the western edge of the great basin habitat in extreme northeast California. Live in a variety of habitats including forests, deserts, mountains, swamps and farmland.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Myotis yumanensis Yuma myotis	Fed: None CA: None	Found in forests and woodlands near water. Roosts in caves, buildings, mines, and crevices.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Nannopterum auritum double-crested cormorant	Fed: None CA: WL	Common yearlong resident in southern California. Occurs widely in freshwater and marine habitats along coastlines. Require open water where they can forage for schooling fish.	Yes	No	**Presumed Absent** There is no suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Neolarra alba white cuckoo bee	Fed: None CA: None	Found in dry, sandy areas (particularly deserts) in the American southwest near the host plants for *Perdita* bee species, of which it is a nest parasite.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Numenius americanus long-billed curlew	Fed: None CA: WL	Preferred winter habitats include large coastal estuaries, upland herbaceous areas, and croplands. On estuaries, feeding occurs mostly on intertidal mudflats.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Nycticorax nycticorax black-crowned night heron	Fed: None CA: None	Fairly common, yearlong resident in lowlands and foothills throughout most of California, including the Salton Sea and Colorado River areas, and very common locally in large nesting colonies. Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and rarely, on kelp beds in marine sub tidal habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: SSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Onychomys torridus ramona southern grasshopper mouse	Fed: None CA: SSC	Inhabits alkali desert scrub and other desert scrub habitats, and to a lesser extent succulent shrubs, desert washes, desert riparian, coastal scrub, mixed chaparral, and sagebrush habitats. Generally rare in valley foothill and montane riparian habitats. Prefers low to moderate shrub cover and requires friable soils.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Pandion haliaetus osprey	Fed: None CA: WL	Remain close to still or slow-moving bodies of water including oceans, rivers, lakes, mangroves, coastal wetlands, lagoons, reefs, estuaries and marshes. Generally nest in high places, such as trees, power poles, or cliffs.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Pelecanus erythrorhynchos American white pelican	Fed: None CA: SSC	Locally common winter resident of southern California. Typically forage in shallow inland waters, such as open areas in marshes and along lake or river edges. Also occur in shallow coastal marine habitats.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Pelecanus occidentalis californicus California brown pelican	Fed: DL CA: DL; FP	Coastal areas, with nesting occurring on islands. Species found occasionally along Arizona's lakes and rivers. This species inhabits shallow inshore waters, estuaries and bays, avoiding the open sea. Its diet is comprised mostly of fish, causing great congregations in areas with abundant prey. Prey species include sardines and anchovies, but has been seen to take shrimps and carrion, and even nestling egrets. It regularly feeds by plunge-diving and is often the victim of kleptoparasites.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	Yes (c)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: SSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Plegadis chihi white-faced ibis	Fed: None CA: WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded partures and croplands. Nests in dense, fresh emergent wetland.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Pyrocephalus rubinus vermillion flycatcher	Fed: None CA: SSC	Can be found in any open country in the American Southwest, including arid scrublands, farmlands, deserts, parks, and canyon mouths. In more arid areas, species prefers areas near streams or other sources of water. Nests in trees usually 6 to 20 feet aboveground along stream corridors.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: None CA: SSC	Found in brushy or shrubby vegetation along the coast and requires small mammal burrows for refuge and overwintering.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Setophaga petechia yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Spea hammondii western spadefoot	Fed: None CA: SSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Spinus lawrencei Lawrence's goldfinch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Spizella breweri Brewer's sparrow	Fed: None CA: None	Lives in arid sagebrush steppe habitat. Prefers to nest, feed, and roost in sagebrush. Can also be found along foothill tree lines, brushy plains, and weedy fields.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Streptocephalus woottoni Riverside fairy shrimp	Fed: **END** CA: None	Freshwater crustacean that is found in vernal pools in the coastal California area.	Yes (a)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Taxidea taxus American badger	Fed: None CA: SSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	Yes (a)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Xanthocephalus xanthocephalus yellow-headed blackbird	Fed: None CA: SSC	Summers in the west-central United States and Canada and winters throughout the western United States. Nests primarily in large wetlands, but also in mountain meadows and along pond and river edges. Forages in fields and open country. Breeds in freshwater sloughs, marshy lake borders, and tall cattails.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
PLANT SPECIES					
Abronia villosa* var. *aurita chaparral sand-verbena	Fed: None CA: None CNPS: 1B.1	Grows in sandy soils in coastal sage scrub and in chaparral habitats. Grows in elevation from 262 to 5,249 feet. Blooming period ranges from January to September.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Atriplex coronata* var. *notatior San Jacinto Valley crownscale	Fed: **END** CA: None CNPS: 1B.1	Grows in alkaline conditions within playas, mesic valley and foothill grasslands, and vernal pools. Found at elevations ranging from 456 to 1,640 feet. Blooming period is from April to August.	Yes (d)	No	**Presumed Absent** There is no suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Atriplex parishii Parish's brittlescale	Fed: None CA: None CNPS: 1B.1	Habitat types include chenopod scrub, playas, and vernal pools. Found at elevations ranging from 82 to 6,234 feet. Blooming period is from June to October.	Yes (d)	No	**Presumed Absent** There is no suitable habitat is present within or adjacent to the project site.
Atriplex serenana* var. *davidsonii Davidson's saltscale	Fed: None CA: None CNPS: 1B.2	Grows in alkaline soils within coastal bluff scrub and coastal scrub. Found at elevations ranging from 33 to 656 feet. Blooming period is from April to October.	Yes (d)	No	**Presumed Absent** There is no suitable habitat is present within or adjacent to the project site. The project site occurs outside of the known elevation range for this species.
Brodiaea filifolia thread-leaved brodiaea	Fed: **THR** CA: **END** CNPS: 1B.1	Grows in chaparral openings, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools, often in clay soils. Found at elevations ranging from 82 to 3,675 feet. Blooming period is from March to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Caulanthus simulans Payson's jewelflower	Fed: None CA: None CNPS: 4.2	Occurs on granitic sandy soils in chaparral and coastal scrub habitats. Found at elevations ranging from 295 to 7,218 feet. Blooming period is from February to June.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Centromadia pungens ssp. laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Found in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, valley, and foothill grassland habitats. Found at elevations ranging from 0 to 2,100 feet. Blooming period is from April to September.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chorizanthe polygonoides var. longispina long-spined spineflower	Fed: None CA: None CNPS: 1B.2	Typically found on clay lenses which are largely devoid of shrubs. Can be found on the periphery of vernal pool habitat and even on the periphery of montane meadows near vernal seeps. Found at elevations ranging from 98 to 5,020 feet. Blooming period is from April to July.	Yes	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Deinandra paniculata paniculate tarplant	Fed: None CA: None CNPS: 4.2	Typically found in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grasslands, and vernal pools. Found at elevations ranging from 82 to 3,084 feet. Blooming period is from April to November.	No	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Hordeum intercedens vernal barley	Fed: None CA: None CNPS: 3.2	Found in coastal dunes, coastal scrub, vernal pools, and valley and foothill grassland habitats. Found at elevations ranging from 16 to 3,281 feet. Blooming period is from March to June.	Yes	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Covered by MSHCP**	**Observed On-site**	**Potential to Occur**
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: None CA: None CNPS: 1B.1	Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet. Blooming period is from February to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Myosurus minimus ssp. apus little mousetail	Fed: None CA: None CNPS: 3.1	Occurs in alkaline soils in valley and foothill grassland and vernal pools. Found at elevations ranging from 66 to 2,100 feet. Blooming period is from March to June.	Yes (d)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Navarretia fossalis spreading navarretia	Fed: **THR** CA: None CNPS: 1B.1	Grows in chenopod scrub, assorted shallow freshwater marshes and swamps, playas, and vernal pools. Found at elevations ranging from 98 to 2,149 feet. Blooming period is from April to June.	Yes (b)	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Tortula californica California screw moss	Fed: None CA: None CNPS: 1B.2	Found in chenopod scrub and valley and foothill grassland. Grows on sandy soil. Found at elevations ranging from 33 to 4,790 feet.	No	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.
Trichocoronis wrightii* var. *wrightii Wright's trichocoronis	Fed: None CA: None CNPS: 2B.1	Grows in alkaline soils in meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Found at elevations ranging from 16 to 1,427 feet. Blooming period is from May to September.	Yes (b)	No	**Presumed Absent** No suitable habitat is present within or adjacent to the project site.

U.S. Fish and Wildlife Service (Fed) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CA) - California
END- California Endangered
THR- California Threatened
Candidate- Candidate for listing under the California Endangered Species Act
FP- California Fully Protected
SSC- Species of Special Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List
4 Plants of Limited Distribution – A Watch List

CNPS Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Western Riverside County MSHCP
Yes- Fully covered
No- Not covered
Yes (a)- May require surveys under MSHCP Section 6.1.2
Yes (b)- May require surveys under MSHCP Section 6.1.3
Yes (c)- May require surveys under MSHCP Section 6.3.2
Yes (d)- May require surveys under MSHCP Section 6.3.2
Yes (e)- Conditionally covered pending the achievement of species-specific conservation measures

Attachment E

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits "take" of threatened or endangered species. "Take" under the ESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

Local Policies

Western Riverside County MSHCP

The MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state- and federal-listed species as well as other identified sensitive species and/or their habitats. Each city or local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), CESA, and FESA will be granted. The Development Mitigation Fee varies according to project size and project description. The fee for industrial development is $7,382 per acre (County Ordinance 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the USFWS, the CDFW, and/or any other appropriate participating regulatory agencies and as set forth in the IA for the MSHCP.

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

In accordance with the Revised Definition of "Waters of the United States"; Conforming (September 8, 2023), "waters of the United Sates" are defined as follows:

(a) *Waters of the United States* means:

(1) Waters which are:
(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(ii) The territorial seas; or
(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:
(i) Waters identified in paragraph (a)(1) of this section; or
(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

(b) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted

cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (*e.g.,* gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

(1) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) *Adjacent* means having a continuous surface connection

(3) *High tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

(4) *Ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(5) *Tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

PALEOWEST

CULTURAL RESOURCE INVESTIGATION IN SUPPORT OF PERRIS MARKETPLACE PROJECT, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA

September 20, 2024

CULTURAL RESOURCE INVESTIGATION IN SUPPORT OF PERRIS MARKETPLACE PROJECT, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA

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September 20, 2024

Keywords: CEQA; City of Perris; Perris Valley; Riverside County; Phase I survey; 10.455 acres; negative findings

MANAGEMENT SUMMARY

PaleoWest, LLC (PaleoWest) was contracted by Birdseye Planning Group to conduct a Phase I cultural resource assessment for the proposed Perris Marketplace Project (Project). The Project will develop a commercial real estate center, which will most likely be anchored by a grocery store, on a 10.455-acre site. The Project requires compliance with the California Environmental Quality Act (CEQA); the City of Perris is the Lead Agency for the purposes of CEQA.

This report summarizes the methods and results of the cultural resource investigation of the Project area. The investigation included background research, communication with the Native American Heritage Commission (NAHC) and interested Native American groups, and a pedestrian survey of the Project area. The purpose of the investigation was to determine the potential for the Project to impact archaeological and historical resources under CEQA.

A cultural resource records search and literature review was conducted at the Eastern Information Center of the California Historical Resource Information System on August 14, 2023. The records search indicated that no fewer than 37 previous studies have been conducted within 1 mile (mi) of the Project area. In addition, eight historic-era cultural resources have been recorded within 1 mi of the Project area. These resources include one archaeological site and seven built-environment resources. None of these previously documented resources are in the Project area.

As part of the cultural resource assessment of the Project area, PaleoWest requested a search of the Sacred Lands File from the NAHC on August 18, 2023. The NAHC responded on October 3, 2023, stating the results of the search were positive and included a list of Native American tribes to contact. Specifically, the NAHC suggested to contact the Pechanga Band of Indians (Pechanga) for additional information. Letters were sent to 21 individuals representing 14 Native American tribal groups (including Pechanga) to elicit information regarding cultural resource issues related to the proposed Project. PaleoWest sent outreach letters to tribal contacts on August 25, 2023. Individuals contacted were selected based on previous NAHC contact lists for a recent project within the same region. Individuals contacted included the 14 Native American tribal groups listed on the NAHC contact list for the current Project. These letters were followed up by phone calls to individuals who had not yet responded. To date, six responses have been received as a result of the Native American outreach efforts.

PaleoWest conducted a pedestrian survey of the proposed Project area on September 22, 2023. No archaeological or built-environment resources were identified during the survey in the Project area. However, an examination of topographic and historical aerial maps indicates that the property was developed by the early 1940s and contained nine buildings and a track or riding ring. These buildings and structures appeared to have been demolished by 1997 and the area was subsequently graded.

Based on these findings, PaleoWest concludes that no archaeological or historical resources will be impacted by the Project. However, PaleoWest recommends the following best management practices be implemented during Project construction:

- If cultural resources are encountered during Project related activities, work in the immediate area must halt and a qualified archaeologist should be contacted immediately to evaluate the find. If the discovery proves to be significant for listing on the CRHR,

additional work, such as data recovery excavations, may be warranted to mitigate any impacts per CEQA.

- If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code § 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified within 24 hours of positive human identification. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

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APPENDICES

Appendix A. Native American Coordination

1 INTRODUCTION

PaleoWest, LLC (PaleoWest) was contracted by Birdseye Planning Group to conduct a Phase I cultural resource assessment for the proposed Perris Marketplace Project (Project). The proposed Project involves the development a commercial real estate center, which will most likely be anchored by a grocery store, in the city of Perris, Riverside County, California (Figure 1-1). The Project requires compliance with the California Environmental Quality Act (CEQA); the City of Perris (City) is the Lead Agency for the purposes of the CEQA.

1.1 PROJECT LOCATION

The Project area is on a vacant parcel (Assessor's Parcel Number 300-260-001) that measures 10.455 acres in size. The property lies at the southeast corner of Perris Boulevard and Placentia Avenue in the northern extent of the city. It is surrounded by modern residential housing to the east and south, modern residential housing across Placentia Avenue to the north, and commercial or industrial development across Perris Boulevard to the west (Figure 1-2). Topographically, the Project encompasses portions of Section 17, Township 4 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted on the *Perris, California* (1980) U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 1-2).

1.2 REPORT ORGANIZATION

This report documents the results of a cultural resource investigation conducted for the proposed Project. Section 1 introduced the Project location. Section 2 states the regulatory context that should be considered for the Project. Section 3 synthesizes the natural and cultural setting of the Project area and surrounding region. The results of the existing cultural resource data literature, resource record review, Sacred Lands File (SLF) search, and a summary of the Native American communications is presented in Section 4. The field methods and results are outlined in Section 5, with management recommendations provided in Section 6. This is followed by bibliographic references and an appendix detailing Native American outreach efforts.

Figure 1-1. Project vicinity map.

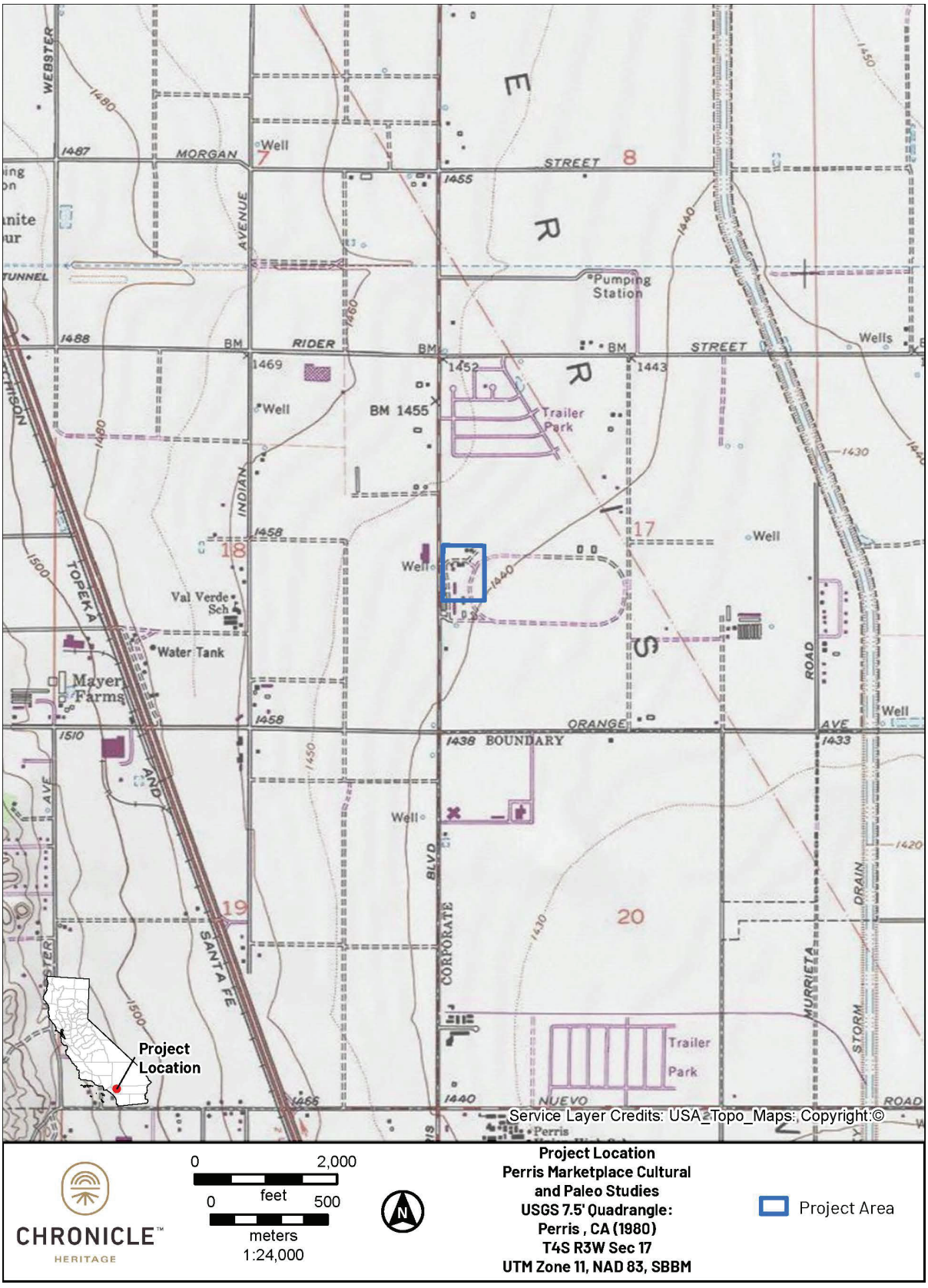

Figure 1-2. Project location map.

2 REGULATORY CONTEXT

2.1 STATE

2.1.1 California Environmental Quality Act

The proposed Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires public and private projects with financing or approval from a public agency to assess the project's impact on cultural resources (Public Resources Code Section 21082, 21083.2, and 21084 and California Code of Regulations 10564.5). The first step in the process is to identify cultural resources that may be impacted by the project and then determine whether the resources are "historically significant" resources.

CEQA defines historically significant resources as "resources listed or eligible for listing in the California Register of Historical Resources (CRHR)" (Public Resources Code Section 5024.1). A cultural resource may be considered historically significant if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets any of the following criteria for listing on the CRHR:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code Section 5024.1).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. CEQA states that if a project will have a significant impact on important cultural resources deemed "historically significant," then project alternatives and mitigation measures must be considered.

2.1.2 California Assembly Bill 52

Signed into law in September 2014, California Assembly Bill 52 (AB 52) created a new class of resources—tribal cultural resources (TCRs)—for consideration under CEQA. TCRs may include sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing in the CRHR, included in a local register of historical resources, or a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant and eligible for listing on the CRHR. AB 52 requires that the lead CEQA agency consult with California Native American tribes that have requested consultation for projects that may affect tribal cultural resources. The lead CEQA agency shall begin consultation with participating Native American tribes prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Under AB 52, a project that has potential to cause

a substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

2.2 LOCAL

2.2.1 City of Perris General Plan

The City of Perris General Plan (General Plan) defines archaeological and cultural resources, identifies areas of cultural sensitivity within the City and the sphere of influence, and discusses previously documented resources within the City. The General Plan includes a goal (Goal IV—Cultural Resources Protection of historical, archaeological and paleontological sites) to ensure that cultural, historic, and paleontological resources within the City and the sphere of influence are preserved and protected (City of Perris 2005). This goal and policies for cultural, historic, and paleontological resources preservation are included in the Conservation Element Goals and Policies section. The following six policies relate to cultural and historic resources.

> Policy IV.A.1: For all private and public projects involving new construction, substantial grading, or demolition, including infrastructure and other public service facilities, staff shall require appropriate surveys and necessary site investigations in conjunction with the earliest environmental document prepared for a project.
>
> Policy IV.A.2: For all projects subject to CEQA, applicants will be required to submit results of an archaeological records search request through the Eastern Information Center (EIC) at the University of California, Riverside.
>
> Policy IV.A.3: Require Phase I Surveys for all projects located in areas that have not previously been surveyed for archaeological or historic resources, or which lie near areas where archaeological and/or historic sites have been recorded.
>
> Policy IV.A.5: Identify and collect previous surveys of cultural resources. Evaluate such resources and consider the preparation of a comprehensive citywide inventory of cultural resources, including both prehistoric sites and man-made resources.
>
> Policy IV.A.6: Create an archive for the City wherein all surveys, collections, records, and reports can be centrally located.
>
> Policy IV.A.7: Strengthen efforts and coordinate the management of cultural resources with other agencies and private organizations.

3 SETTING

This section of the report summarizes information regarding the physical and cultural setting of the Project area, including the prehistoric, ethnographic, and historic period contexts of the general area. Several factors, including topography, available water sources, and biological resources, affect the nature and distribution of prehistoric, ethnographic, and historic period

human activities in an area. This background provides a context for understanding the nature of the cultural resources that may be identified within the region.

3.1 ENVIRONMENTAL SETTING

The Project area is in western Riverside County, within Perris Valley and the greater San Jacinto Valley, and between the Temescal Mountains to the west and Lakeview Mountains and Bernasconi Hills to the east. Perris Valley is a semi-arid, inland, alluvial valley that generally extends in a northwest–southeast direction. Several isolated granitic mountains, such as the Lakeview Mountains and the Bernasconi Hills, separate Perris Valley from the nearby Moreno, San Jacinto, and Menifee Valleys. Perris Valley is a sub-basin of the San Jacinto watershed and is bounded by the San Jacinto Mountains to the northeast and the Santa Ana Mountains to the southwest. The San Jacinto River crosses Perris Valley flowing southwest into Railroad Canyon, cutting through the Temescal Mountains. The river heads in the San Jacinto Mountains and drains into Lake Elsinore, which formed on a sink along the Elsinore Fault, and much of the valley fill is derived from the river. The Perris Valley is the westernmost part of the greater San Jacinto Valley and is an alluviated structural valley with a relatively flat depositional surface surrounded by granitic hills. The climate and environment of the region are typical of southern California's inland valleys, with temperatures in the region reaching over 100 degrees Fahrenheit in the summer and dipping to near freezing in the winter. The average annual precipitation is approximately 12 inches.

The dominant plant community in the vicinity of the Project area is California sagebrush (*Artemisia californica*). California sagebrush is characterized by low-growing, drought-deciduous shrubs that have adapted to the semi-arid Mediterranean climate of Southern California. Additional flora includes white sage (*Salvia apiana*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salvia mellifera*).

3.2 PREHISTORIC SETTING

The earliest evidence of human occupation in western Riverside County was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9500 before present (B.P.) (Horne and McDougall 2008). Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8000 and 9000 B.P. (Grenda 1997).

The cultural prehistory of southern California has been summarized into numerous chronologies, including those developed by Chartkoff and Chartkoff (1984), Heizer (1978), Horne and McDougall (2008), Moratto (1998), Schaefer (1994), and Warren (1984). The general framework of the prehistory of western Riverside County can be broken into three primary periods: Paleoindian, Archaic, and Late Prehistoric. These periods are discussed below.

3.2.1 Paleoindian Period

During the Paleoindian Period, Native groups are believed to have been highly mobile nomadic hunters and gatherers organized into small bands. Sites from this period are thought to be very sparse across the landscape, and may either yield only meager evidence of human activity or be rich with flaked and ground stone tool kits, ecofacts, and possibly even structures;

additionally, most are deeply buried, based on evidence of sites found outside of California dating to this time period (Bruhns 1994; Dillehay 1989, 1997; Lynch 1980; Meltzer et al. 1997; Moratto 1984; Roosevelt et al. 1996). These sites may be found in large, protected caves above floodplains, but near economically important resources in coastal, lake marsh, and valley/riparian environments. These sites may also be found at quarry locations, as well as stable landforms above high stands of pluvial lakes; along ridge systems and in mountain passes; and stable, not encroached upon, old surfaces along the coast. It is believed that Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes serves as a diagnostic Paleoindian marker at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators.

3.2.2 Archaic Period

The Archaic Period is the earliest defined period in the region. The early portion of this period is also expressed as the "Lake Mojave Period" or the "Western Pluvial Lakes Tradition" and is presumed to have begun somewhat earlier than 9500 B.P. and lasted to perhaps 7000 B.P., specifically in the southwestern Great Basin (Basgall and Hall 1993: Warren 1980, 1984). Wallace (1978:27) noted that the Western Pluvial Lakes Tradition likely represents a portion of regional variants of an early hunting tradition that likely spread over a wide geographical area, including the coast. During this time, a long period of human adaptation to environmental changes brought on by the transition from the late Pleistocene to the early Holocene geologic periods occurred. As conditions became warmer and more arid, megafauna died off, and human populations responded to these environmental changes by focusing more on their subsistence efforts to procure a wider variety of food sources.

The early portion of the Archaic period was characterized by the continued organization of Native groups as nomadic hunters and gatherers; however, there is some evidence of semi-sedentary residential occupation. Early occupants of the region were thought to have been nomadic large-game hunters but, due to changing environmental factors over time, were forced to become more variable with their food sources. The presence of milling tools indicates the incorporation of vegetal food sources and seed preparation. An apparent decrease in population density during the second half of this period resulted in increased reliance on foraging for Native groups. Technological advances during this period resulted in increased use of milling tools for seed grinding. Archaic sites in the Project region are characterized by abundant lithic scatters of considerable size, with many biface thinning flakes, manos and milling stones, bifacial preforms broken during manufacture, and well-made ground stone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is an indicative feature of Archaic sites. Of course, archaeological assemblages of this period can vary depending on the differences between subsistence processes in the inland versus coastal sites. Sites more toward the coast of southern California and outside of the Project area typically present fewer projectile points, as more focus was placed on fishing practices versus hunting game.

Additionally, some sites in the region from the Archaic period present stratified cultural deposits that indicate seasonal or longer-term occupation in some locations, further indicating possible sedentary habitation or occupation patterns. It is thought that the general settlement-subsistence patterns in the region of the Project during the Middle Holocene were characterized by a greater emphasis on seed gathering and shallow midden concentrations at

sites, which suggests seasonal camping. Based on archaeological assemblages, distribution of sites, and midden depths (or lack thereof in some cases), it is believed that Native Americans in the area followed a central-based wandering pattern that shifted based on the need to exploit seasonal floral resources (cf. Binford 1980; Warren 1968). Specifically, this semisedentary pattern involved a base camp that was occupied during a portion of the year, while other more satellite camps were occupied by smaller groups of people to exploit seasonal resources, such as grass seeds, berries, tubers, and nuts. The exploitation of terrestrial faunal resources was also important, but the population and degree of sedentism at these camps were, of course, based on the availability and reliability of water resources. For this reason, it is thought that coastal groups during this period seem to display a higher degree of sedentism compared to the inhabitants of the desert/inland regions in southern California due to a more reliable and abundant resource base near the ocean.

3.2.3 Late Prehistoric Period

The Late Prehistoric period is characterized by cooler temperatures and greater precipitation resulting in more easily accessible food and water sources. A more favorable climate during the period resulted in more reliable food sources and the formation of sedentary villages. The subsistence base during this time also broadened, and Native American groups in the region began manufacturing ceramics, such as vessels, using the paddle-and-anvil technique. The technological advancement of the mortar and pestle may also indicate the utilization of acorns as a resource and the practice of storing food resources.

Trade and travel are also seen in the distribution of localized resources; these include obsidian from Obsidian Butte, wonderstone from the south end of the Santa Rosa Mountains and Cerro Colorado in northern Baja California, soapstone presumed to have come from Santa Catalina Island to the west, marine shell from both the Gulf of California and the Pacific coast, and ceramic types that were not locally manufactured. Sites from this period typically contain small lithic scatters from the manufacture of small projectile points; expedient ground stone tools, such as tabular metates and unshaped manos; wooden mortars with stone pestles; acorn or mesquite bean granaries; ceramic vessels; shell beads suggestive of extensive trading networks; and steatite implements, such as pipes and shaft straighteners. Other characteristics of this period include the appearance of bone and antler elements within the artifact assemblage and the use of asphaltum. This period also is marked by the appearance of bow and arrow points and arrow shaft straighteners, and a shift from inhumation to cremation burials.

The cultural patterns of the Late Prehistoric period were similar to the previous period; however, the material culture at many coastal sites appears to have become more complex and elaborate. This may be indicative of an increase in sociopolitical complexity and/or increased efficiency in subsistence strategies (e.g., the utilization of the bow and arrow), or progressive economic changes that included an increase in trade activities with other regions. Indicative of increased trade practices during this period between coastal and inland Native groups is the presence of both *Haliotis* and *Olivella* shells and beads and ornaments, and non-local ceramics at sites in the Project region.

The increased carrying capacity and intensification of resources suggest higher populations in the desert with a greater ability to adapt to the changing environmental conditions (Warren 1984:420).

The presence of sites post-dating 500 B.P., along with the high frequency of processing sites and the abundance of a variety of biotic, faunal, and artifacts, suggests that occupation in the area intensified during the Late Prehistoric period. It has been suggested that this increase in use resulted from the influx of Native American peoples from the surrounding desert region rather than indicative of an increase in a resident population (O'Connell et al. 1974). This shift in population is also believed to coincide with the evaporation of freshwater Lake Cahuilla in the Salton Basin, which could have prompted people to move to a more hospitable environment. Terminal dates for occupation at these sites in the latter half of the Late Prehistoric period are thought to be approximately 200 years ago (Wilke 1974:24).

3.3 ETHNOHISTORIC SETTING

3.3.1 Luiseño

Luiseño territory generally extended from present-day Riverside County south to Escondido, and to Oceanside in the west. Leading anthropological literature regarding the Luiseño culture and history includes Kroeber (1925), Strong (1929), and Bean and Shipek (1978).

Prior to the institution of the Mission System, the Luiseño were likely divided between coastal and inland groups. When Spanish settlers instituted the mission system in the 1770s, traditional social and political organization was disrupted. Luiseño villages were organized as autonomous neighboring groups loosely connected through a system of lineages and clans (Bean and Shipek 1978). The Luiseño were primarily hunters, gatherers, and harvesters. The landscape within the Luiseño traditional use area varied, and methods of subsistence largely depended on the region of settlement. Hunting and gathering places were owned by individuals, families, the chief, or by the collective community (Bean and Shipek 1978). Game animals included deer, cottontail rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, quail, doves, ducks, and other birds. Acorns, roots, leaves, seeds, and the fruit of many other plants were also common sources of food.

The material culture of the Luiseño included a wide variety of utilitarian items, including projectile points, woven and skin mats, baskets, pottery ollas, shell and bone fishhooks, cooking slabs, digging stick weights, manos, metates, and mortars (Bean and Shipek 1978). Most Luiseño houses were made of locally available material, were conical and partially subterranean, and often featured an adjacent brush-covered ramada for domestic chores. Other buildings found in most villages included earth-covered sweat houses, ceremonial houses with fenced areas, and granaries for food storage (Bean and Shipek 1978).

It is estimated that when the Spanish colonization of Alta California began in 1769, the Luiseño had approximately 50 active villages with an average population of 200 each. However, other estimates place the total Luiseño population at 4000–5000 (Bean and Shipek 1978). Ultimately, the Luiseño population declined rapidly after European contact because of diseases, such as smallpox, and harsh living conditions at the missions and ranchos, where the Native people often worked as seasonal ranch hands.

After the American annexation of California, the influx of American settlers further eroded the foundation of the traditional Luiseño society. During the latter half of the nineteenth century, almost all the remaining Luiseño villages were displaced, and their occupants eventually

removed to the various reservations. Today, the nearest Native American groups of Luiseño heritage are associated with the Soboba, Pechanga, and Pala Reservations.

3.3.2 Cahuilla

The Cahuilla have been studied extensively by Dr. Lowell Bean, and much of the following discussion is derived from Bean's description of the Cahuilla in Volume 8 of the *Handbook of North American Indians* (Bean 1978:575–587).

The Cahuilla belong to nonpolitical, nonterritorial patrimoieties that governed marriage patterns, patrilineal clans, and lineages. Each clan, "political-ritual-corporate units" composed of 3–10 lineages, owned a large territory where each lineage owned a village site with specific resource areas. Clan lineages cooperated in defense, in large communal subsistence activities, and in performing rituals. Clans were apt to own land in the valley, foothill, and mountain areas, providing them with the resources of many different ecological niches.

In prehistoric times, Cahuilla shelters are believed to have been dome shaped and, after contact, tended to be rectangular. Cahuilla shelters were often made of brush, palm fronds, or arrowweed. Most Cahuilla domestic activities were performed outside the shelters and within the shade of large, expansive ramadas.

The Cahuilla were, for the most part, hunting, collecting, harvesting, and protoagricultural peoples. As in most of California, acorns were a major staple, but the roots, leaves, seeds, and fruit of many other plants were also used. Fish, birds, insects, and large and small mammals were also available.

To gather and prepare these food resources, the Cahuilla had an extensive inventory of equipment, including bows and arrows, traps, nets, disguises, blinds, spears, hooks and lines, poles for shaking down pine nuts and acorns, cactus pickers, seed beaters, digging sticks and weights, and pry bars. In addition, the Cahuilla also had an extensive inventory of food processing equipment, including hammers and anvils, mortars and pestles, manos and metates, winnowing shells and baskets, strainers, leaching baskets and bowls, knives (made of stone, bone, wood, and carrizo cane), bone saws, and drying racks made of wooden poles to dry fish.

Mountain tops, unusual rock formations, springs, and streams are sacred to the Cahuilla, as are rock art sites and burial and cremation sites. In addition, various birds are revered as sacred beings of great power and were sometimes killed ritually and mourned in mortuary ceremonies similar to those for important individuals. As such, bird cremation sites are considered sacred by the Cahuilla.

3.4 HISTORICAL SETTING

Spanish settlement of Alta California began in 1769, with the establishment of a presidio and mission near San Diego. In 1770, a second presidio and mission were established in Monterey. These two settlements were used as bases to colonize the rest of California. The Spanish also laid out pueblos, or towns, along the coast. Providing supplies, animals, and colonists to the Spanish missions and presidios by way of ship was difficult, time-consuming, expensive, and dangerous. Thus, an overland route was necessary to initiate a strong colonizing effort in Alta

California. In 1774, Captain Juan Bautista de Anza crossed the San Jacinto plains with a small party of soldiers to establish an overland route through Alta California.

Within the mission system, the Riverside County area was considered part of the lands administered by the San Diego presidio and Mission San Luis Rey. Mission San Luis Rey was founded in 1798. Mission San Luis Rey established Rancho San Jacinto Viejo in 1820 and used the area primarily for ranching. Mexico gained its independence from Spain in 1821 and, with the Secularization Act of 1833, dissolved the mission system and redistributed former mission lands (Gunther 1984).

In 1842, Don Jose Antonio Estudillo was granted the Rancho San Jacinto Viejo Potrero, a 35,000-acre parcel, by Mexican Governor Juan B. Alvarado. The rancho—which included an area encompassing the present-day cities/communities of Hemet, San Jacinto, Valle Vista, and Winchester—was used for grazing cattle. After a son of Don Estudillo inherited the rancho, the division and sale of the rancho to immigrant American pioneers began. The western half of Perris was within the Rancho El Sobrante de San Jacinto, which was granted to Maria del Rosario and Estudillo de Aguirre by Governor Pio Pico on May 9, 1846. This rancho amounted to 48,847 acres and included western Perris Valley, the Canyon Lake area, and the Lake Mathews region (City of Perris 2005). Cattle and agriculture were the economic engines that drove the ranchos' way of life, which continued until the second half of the nineteenth century with the arrival of American and European settlers into California.

The Mexican American War ended in 1848 with the signing of the Treaty of Guadalupe Hidalgo. California became a United States territory and, in 1850, was granted statehood. American settlement in the region was slow and sporadic, but settlement in the valley received a major boost when the California Southern Railway was constructed through the Perris Valley in 1882–1883. The route, which was eventually connected to the Atchison, Topeka, and Santa Fe Railway, resulted in the establishment of several towns within the Perris Valley along the railroad corridor. The town of Perris was founded in 1886 and was named in honor of Frederick Thomas Perris, the California Southern Railway's chief engineer and superintendent of construction (Gunther 1984). Riverside County was incorporated in 1893, and Perris was designated one of the official judiciary townships. Perris was incorporated as a city on May 16, 1911.

Agriculture was the primary economic force within the Perris Valley through the end of the nineteenth century and much of the twentieth century. Like much of California, the Perris Valley enjoyed a boom after World War II due to commercial, industrial, and residential development. The expansion of the highway system and the development of the freeway system during the mid-twentieth century further connected Perris to nearby metropolitan areas, resulting in increased commercial and residential development. During the second half of the twentieth century, urban/suburban development became the driving force behind growth in the Perris area, with much of the former farmlands turned into residential tracts and commercial development. This trend continued into the twenty-first century with the development of large housing tracts that transformed the region into a bedroom community for Los Angeles, Orange, and San Diego counties.

4 CULTURAL RESOURCES INVENTORY

On August 14, 2023, a literature review and records search were conducted at the EIC, housed at the University of California, Riverside. This inventory effort included the Project area and a 1-mile (mi) radius around the Project area, collectively termed the Project study area. The objective of this records search was to identify prehistoric or historical cultural resources that have been previously recorded within the study area during prior cultural resource investigations.

As part of the cultural resources inventory, PaleoWest staff also examined historical maps and aerial images to characterize the developmental history of the Project area and surrounding area. A summary of the results of the record search and background research are provided below.

4.1 PREVIOUS CULTURAL RESOURCES INVESTIGATIONS

The records search results indicate that no fewer than 37 previous investigations have been conducted and documented within the Project study area since 1979 (Table 4-1). Four studies encompass or intersect the Project. As such, it appears that the Project area in its entirety has been previously inventoried for cultural resources.

Table 4-1. Previous Cultural Investigations within the Project Study Area

Report No.*	Year	Author(s)	Title
RI-00572	1979	Breece, William H.	Cultural Resource Survey of the Metro Park Project Proposed Racetrack, Riverside County, California
RI-00573	1984	Dover, Christopher E.	Environmental Impact Evaluation: An Archaeological Assessment of Tentative Tract 20,538 Near Perris, Riverside County, California
RI-00574	1984	Dover, Christopher E.	Environmental Impact Evaluation: An Archaeological Assessment of Tentative Tract 20,524 Near Perris, Riverside County, California
RI-01886	1984	Drover, Christopher E.	An Archaeological Assessment of a Planned Residential Development at The Intersection of Orange Avenue and Murrieta Road, Perris, California
RI-01887	1984	Drover, Christopher E.	An Archaeological Assessment of Tt 20124, Near Perris, Riverside County, California
RI-04649	2003	Keller, Jean A.	A Phase I Cultural Resources Assessment of Perris 53, 52.91 Acres of Land in The City of Perris, Riverside County, California
RI-05023	2004	Mckenna et al.	A Phase I Cultural Resources Survey of The Proposed City of Perris Southeast High School Site (68.57 Acres) Riverside County, California
RI-05549	2004	Applied Earthworks	Phase I Cultural Resources Survey of The Rider Street Improvements Project, City of Perris, Riverside County, CA
RI-05798	2004	Kyle, Carolyn E.	Cultural Resource Assessment for AT&T Wireless Facility 950-

Report No.*	Year	Author(s)	Title
			031-040a, City of Perris, Riverside County, California
RI-06137	2004	Taniguchi, Christeen	Letter Report: Records Search Results Ans Site Visit for Sprint Telecommunications Facility Candidate Rv60xc848d (Dominguez Pharmacy) 2055 North Perris Boulevard, Perris, Riverside County, Ca
RI-06577	2006	Tang, Bai "Tom", Michael Hogan, Thomas Shackford, And John J. Eddy	Historical/Archaeological Resources Survey Report, Rados-Perris Distribution Center, Assessor's Parcel No. 30-050-002, In the City of Perris, Riverside County, California
RI-06727	2006	Mclean, Roderic	Letter Report: Cultural Resources Study for The Replacement of Four Deteriorated So Ca Edison Wooden Utility Poles on The Corsair 12 KV Circuit, The Sprague 12 KV Circuit, The Palmer 12 KV Circuit, And the Carbine 12 KV Circuit, California
RI-06747	2005	Ewers, Daniel	Cultural Resource Assessment: Perris Marketplace, City of Perris, Riverside County, California
RI-06837	2006	Hooper, Anna M., Kristie R. Blevins, Leslie Nay Irish, and William R. Gillean	A phase I Archaeological Records Search and Survey Report on APN 306-380-023, +-2.5 Acres, Wilson Avenue, City of Perris, Riverside County, California
RI-06898	2006	McKenna, Jeanette A.	A Phase 1 Cultural Resources, Investigation of the Perris 2, Project Area in the City, of Perris, Riverside, Co., California
RI-06914	2003	Harrison, Jim	Letter Report: Biological and Cultural Resources Due Diligence Regarding the 500-Acre Watson Land Company-Perris Property in Riverside County, California
RI-06956	2007	Bholat, Sara	Cultural Resources Survey, of a 1.9 Acre Parcel, (APN-303-275-036), Perris, Riverside County, California.
RI-07133	2007	Moreno, Adrian Sanchez	Archaeological Survey Report for Southern California Edison Company: Sentrex Street Light Relocation Project Located on the Harrier 12kV Circuit, Riverside County, California (WO#6677-4054, AI#R6733)
RI-07491	2007	McKenna, Jeanette A.	A Phase I Cultural Resources Investigation for the Proposed West End Middle School in the City of Perris, Riverside County, California
RI-07538	2007	Tang, Bai "Tom", Michael Hogan, Clarence Bodmer, Josh Smallwood, and Melissa Hernandez	Cultural Resources Technical Report, North Perris Industrial Specific Plan, City of Perris, Riverside County, California
RI-07690	2006	Rosenburg, Seth A. and Brian F. Smith	A Phase I Archaeological Assessment for the La Corona Market Project, City of Perris, Riverside County, California
RI-08013	2005	Gust, Sherri and Kim Scott	Archaeological And Paleontological Resources Assessment Report for Harvest Landing, City of Perris, California
RI-08265	2009	Billat, Lorna	Letter Report: Proposed Cellular Tower Project(s) in Riverside County, California, Site Number(s)/Name(s): CA-2972/

Report No.*	Year	Author(s)	Title
			Dominguez Pharmacy
RI-08290	2009	Bonner, Wayne H. and Arabesque Said	Letter Report: Cultural Resource Records Search and Site Visit Results for Royal Street Communications California, LLC Candidate LA3123A (Perris Palm-Tower Co Colo CA2972), 2055 North Perris Boulevard, Perris, Riverside County, California.
RI-08351	2010	Tang, Bai "Tom", Thomas Shackford, Terri Jacquemain, and John Eddy	Historical / Archaeological Resources Survey Report: Rados-Perris Distribution Center, Assessor's Parcel Number 303-050-002, in the City of Perris County of Riverside, California.
RI-08696	2011	Bonner, Wayne H. and Arabesque Said	Cultural Resources Record Search and Site Visit Results for T-Mobile USA Candidate IE24163-B
RI-08793	2011	Bonner, Wayne H., Sarah A. Williams, and Kathleen A. Crawford	Cultural Resources Records Search and Site Visit Results for Sprint Nextel Candidate RV75XC117 (Bunker Hill Sub)
RI-09471	2016	Goodwin, Riordan	Cultural Resource Assessment Perris Estates Project City of Perris County of Riverside, California
RI-09621	2014	Puckett, Heather R.	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property at the Periwinkle Site, 57 Business Park Drive, Perris, Riverside County, California 92571
RI-09727	2015	George, Joan and Josh Smallwood	Cultural Resource Assessment for the Perris Apartments Project, City of Perris, Riverside County, California
RI-09756	2015	Haas, Hannah, Robert Ramirez, and Kevin Hunt	City of Perris Valley Storm Channel Trail Project Cultural Resource Study
RI-10199	**2014**	**Fulton, Phil**	**Discovery And Monitoring Plan for The Mid County Parkway**
RI-10712	2018	Porras, P. and B. Vargas	Cultural Resources Study for the Proposed Mobile Home Park, Perris, California
RI-10787	2018	Smith, Brian F.	Cultural Resources Monitoring Report for the Rider Distribution Center I Project, DPR No. 06-0635, City of Perris, Riverside County, California
RI-10788	2018	Smith, Brian F.	Cultural Resources Monitoring Report for the Rider Distribution Center III Project, PM 35268, City of Perris, Riverside County, California
RI-10866	2021	Kaiser, Kate, Jessica Colston, and Samantha Murray	Cultural Resources Report for the Perries Boulevard and Morgan Street Industrial Park Project City of Perris, Riverside County, California
RI-10898	2021	Garrison, Andrew J. and Briam F. Smith	A Phase I Cultural Resources Survey for the 3175 Wilson Avenue Project, Perris California

*Bold text designates previous investigation intersecting or lying within the Project area

4.2 CULTURAL RESOURCES REPORTED WITHIN 1 MILE OF THE PROJECT AREA

The records search indicated that no fewer than eight historic-era cultural resources have been previously documented within the Project study area. These resources include one archaeological site and seven built-environment resources (Table 4-2). No prehistoric resources have been documented within 1-mi of the Project aera. None of the previously documented historic-era resources are within the Project area.

Table 4-2. Previously Recorded Cultural Resources within the Project Study Area

Primary No.	Trinomial	Age	Type	Description
P-33-007641	–	Historic	Building	J.B. Mayer Ranch; wood structure frame, shed, and barn
P-33-007648	–	Historic	Building	Camp Haan Barracks
P-33-007659	–	Historic	Structure	Possible Camp Haan Base buildings: two metal structures in "Quonset hut" style
P-33-011265	CA-RIV-6726H	Historic	District, Element of district	Segment of Colorado River Aqueduct
P-33-016238	CA-RIV-8389	Historic	Site	Farming equipment remnants
P-33-028896	–	Historic	Object	Concrete irrigation feature
P-33-029117	–	Historic	Object	15 by 8-foot concrete slab with two wells that have been filled in
P-33-029118	CA-RIV-13010	Historic	Object	Segment of Perris Valley Storm Drain

4.3 ADDITIONAL HISTORIC RESEARCH ON THE PROJECT SITE

Additional sources consulted during the cultural resource literature and data review include the National Register of Historic Places, the Office of Historic Preservation Archaeological Determinations of Eligibility, and the Office of Historic Preservation Built Environment Resources Directory. There are no listed cultural resources recorded within the Project area or within 1 mi of the Project area.

Archival research conducted on the Project site includes a review of Bureau of Land Management (BLM) General Land Office (GLO) records, a Riverside County assessor's parcel search, and historical topographic maps and aerial images. The GLO records indicate that the Project area was part of the 1883 San Jacinto Nuevo Y Potrero land grant, which included more than 48,000 acres of land given to members of the Pedrorena family (BLM 2023). Additionally, a second land patent for the area including the Project area was granted from the state to the Southern Pacific Railroad Company in 1894. The Riverside County assessor's parcel search indicated that the parcel is vacant commercial land and did not indicate any persons of note as past owners (Riverside County Assessor 2023).

Historical maps were consulted, including Elsinore, California (1901), Southern California (1901) 30-minute; Perris, California (1942) 15-minute; and Perris, California (1953, 1967) 7.5-minute

USGS quadrangles (TopoView 2023). Historical aerial photographs from NETROnline dated to 1959, 1966, 1967, 1978, 1985, 1997, 2002, and 2020 were also examined. As depicted on the topographic maps and aerial photographs, it appears that there were approximately eight buildings and a track or riding ring present within the Project area as early as 1942. By 1967, a ninth building had been constructed; the track or riding ring appears to have been demolished by this time and is no longer extant. Sometime between 1985 and 1997, all nine buildings on the property were removed and the area was graded (NETROnline 2023). The Project area has remained vacant since at least 1997.

4.4 NATIVE AMERICAN COORDINATION

PaleoWest contacted the NAHC on August 18, 2023, for a review of the SLF. The objective of the SLF search was to determine if the NAHC had any knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the Project area. The NAHC responded on October 3, 2023, stating the results of the search were positive and included a list of Native American tribes to contact. Specifically, the NAHC suggested to contact the Pechanga Band of Indians (Pechanga) for additional information. Letters were sent to 21 individuals representing 14 Native American groups (including Pechanga) to elicit information regarding cultural resource issues related to the proposed Project (Appendix A). PaleoWest sent outreach letters to tribal contacts on August 25, 2023. Individuals contacted were selected based on previous NAHC contact lists for a recent project within the same region. Individuals contacted included the 14 Native American tribal groups listed on the NAHC contact list for the current Project. These letters were followed up by phone calls to individuals who had not responded on October 3, 2023.

To date, six responses have been received as a result of the Native American outreach efforts conducted for the Project (Appendix A).

- The Agua Caliente Band of Cahuilla Indians sent an email requesting the following documentation related to the Project:
    - A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.
    - A copy of the records search with associated survey reports and site records from the information center.
    - Copies of any cultural resource documentation (report and site records) generated in connection with this project.
- The EPA Department of Los Coyotes Band of Cahuilla and Cupeño Indians responded via phone on October 3, 2023, stating they have reviewed the outreach letter, and they have no further comments.
- Pechanga Band of Indians sent an email requesting the following documentation related to the Project:
    - 1) Notification once the Project begins the entitlement process, if it has not already;
    - 2) Copies of all applicable archaeological reports, site records, proposed grading plans and environmental documents (ENIS/MND/EIR, etc);

    - 3) Government-to-government consultation with the Lead Agency; and
    - 4) The Tribe believes that monitoring by a Riverside County qualified archaeologist and a professional Pechanga Tribal Monitor may be required during earthmoving activities. Therefore, the Tribe reserves its right to make additional comments and recommendations once the environmental documents have been received and fully reviewed.
    - 5) In the event that subsurface cultural resources are identified, the Tribe requests consultation with the Project proponent and Lead Agency regarding the treatment and disposition of all artifacts.
- Rincon Band of Luiseño Indians sent an email stating that the Project is within the Traditional Use Area of the Luiseño people and within the Tribe's specific Area of Historic Interest and as such, the Rincon Band is traditionally and culturally affiliated to the project area. The Tribe, however, does not have cultural resource information to share, and requested a final copy of the report.
- Soboba Band of Luiseño Indians responded via phone on October 3, 2023, stating that the entire area of Perris has numerous village sites that have been identified and the Tribe has significant information to share regarding the area. Soboba is more than willing to disclose the significant information they have to the agency during consultation.
- Torres-Martinez Desert Cahuilla Indians responded via phone on October 3, 2023, stating that the Tribe does not have any comments or concerns for the City of Perris.

5 FIELD INVESTIGATION

5.1 FIELD METHODS

A cultural resource survey of the Project area was completed by PaleoWest Archaeologist Diana Cleveland on September 22, 2023. The fieldwork effort included an intensive pedestrian survey of the entire Project area, totaling 10.455 acres. The intensive pedestrian survey was conducted by walking a series of parallel transects spaced at 10–15-meter (m) (33–49-feet [ft]) intervals. The archaeologist carefully inspected all areas within the Project area likely to contain or exhibit sensitive cultural resources to ensure discovery and documentation of any visible, potentially significant cultural resources within the Project area.

Prehistoric site indicators may include areas of darker soil with concentrations of ash, charcoal, bits of animal bone (burned or unburned), shell, flaked stone, ground stone, or even human bone. Historical site indicators may include fence lines, ditches, standing buildings, objects or structures such as sheds, or concentrations of materials at least 45 years in age, such as domestic refuse (e.g., glass bottles, ceramics, toys, buttons, or leather shoes), refuse from other pursuits such as agriculture (e.g., metal tanks, farm machinery parts, horseshoes), or structural materials (e.g., nails, glass window panes, corrugated metal, wood posts or planks, metal pipes and fittings, railroad spurs, etc.).

5.2 FIELD RESULTS

The Project area is a vacant parcel of land surrounded by residential, commercial, and industrial development. Ground visibility was poor (5–20%) across the survey area with annual weeds and tall grasses obscuring portions of the property (Figures 5-1 and 5-2). Although the perimeter

Figure 5-1. Overview from center of the Project area, facing north.

Figure 5-2. Overview from north of Project area toward center of lot, facing south.

of the parcel showed evidence of having been recently mowed, a dense concentration of vegetation was observed in the center of the Project area (Figure 5-3).

Exposed surface sediments consisted of fine, brown to light brown sandy silt with minimal gravels. Evidence of previous agricultural activity was found throughout the Project area with planting rows formed in the dirt and patches of parsley growing wild. No cultural resources were identified in the Project area during the survey.

Figure 5-3. Overview from the center of the Project area, facing west.

6 MANAGEMENT RECOMMENDATIONS

The cultural resource assessment identified no archaeological or historical resources in the Project area. However, an examination of topographic and historical aerial maps indicates that the property was developed by the early 1940s and contained nine buildings and a track or riding ring. These buildings and structures appeared to have been demolished by 1997 and the area was subsequently graded. The NAHC responded to the SLF request stating the results of the search were positive and included a list of Native American tribes to contact. Specifically, the NAHC suggested to contact the Pechanga Band of Indians (Pechanga) for additional information. Letters were sent to 21 individuals representing 14 Native American groups (including Pechanga) to elicit information regarding cultural resource issues related to the proposed Project (Appendix A).

Based on these results, PaleoWest concludes that no archaeological or historical resources will be impacted by the Project. However, PaleoWest recommends the following best management practices be implemented during Project construction.

- If cultural resources are encountered during Project related activities, work in the immediate area must halt and the Project Archaeologist should be contacted immediately to evaluate the find. If the discovery proves to be significant for listing on the CRHR, additional work such as data recovery excavations may be warranted to mitigate any impacts per CEQA.

- If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code § 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified within 24 hours of positive identification as human. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

7 REFERENCES

Basgall, M.E., and M.C. Hall

1993 *Archaeology of the Awl Site (CA-SBR-4562), Fort Irwin, San Bernardino County, California: An Early Holocene Residential Base in the North-Central Mojave Desert*. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to U.S. Army Corps of Engineers, Los Angeles District.

Bean, Lowell J.

1978 Cahuilla. In *Handbook of North American Indians, Vol. 8 (California)*, edited by R.F. Heizer, pp. 575–587. William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C

Bean, Lowell Jean and Florence Shipek

1978 Luiseño. *Handbook of North American Indians*, *8*, 550-563.

Bureau of Land Management (BLM)

2023 General Land Office records for Township 4 South, Range 3 West, Section 17. Accessed August 2023 at https://glorecords.blm.gov/results/default.aspx?searchCriteria=type=patent|st=CA|cty=065|twp_nr=4|twp_dir=S|rng_nr=3|rng_dir=W|sec=17|m=27|sp=true|sw=true|sadv=false.

Binford, L.R.

1980 Willow Smoke and Dogs' Tails: Hunter Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45:4-20.

Bruhns, K. O.

1994 *Ancient South America*. Cambridge University Press, Cambridge.

Chartkoff, Joseph L., and Kerry Kona Chartkoff

1984 *The Archaeology of California*. Stanford University Press, Stanford, California.

City of Perris
2005 Perris General Plan Conservation Element. Document accessed June 3, 2022 at https://www.cityofperris.org/home/showpublisheddocument/449/637203139693370000.

Dillehay, T.D.
1989 *Paleoenvironment and Site Context. Monte Verde: A Late Pleistocene Settlement in Chile*, Vol. I. Smithsonian Institution Press, Washington, D.C.

1997 *Archaeological Context. Monte Verde: A Late Pleistocene Settlement in Chile, Vol. II*. Smithsonian Institution Press, Washington, D.C.

Grenda, Donn
1997 *Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore*. Statistical Research Technical Series 59. Statistical Research, Inc., Tucson, Arizona.

Gunther, Jane Davies
1984 *Riverside County, California, place names: Their origins and their stories.* Published by Rubidoux, Riverside, 1984.

Heizer, Robert F. (editor)
1978 *California Handbook of North American Indians, Vol. 8*, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Horne, Melinda C., and Dennis P. McDougall
2008 *CA-RIV-6069: Early Archaic Settlement and Subsistence in the San Jacinto Valley, Western Riverside County, California*. Report on file, Eastern Information Center, University of California, Riverside.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Dover Publications, Inc., New York.

Lynch, T.F. (editor)
1980 *Guitarrero Cave: Early Man in the Andes. Academic Press, New York*.

Meltzer, D. J., D. K. Grayson, G. Ardila, A. W. Barker, D. F. Dincauze, C. V. Hanes, Jr., F. Mena, L. Nuñez, and D. J. Stanford
1997 On the Pleistocene Antiquity of Monte Verde, Southern Chile*. American Antiquity* 62: 659-663.

Moratto, Michael J.
1984 *California Archaeology.* Orlando, Florida: Academic Press, Inc.

1998 *Legal Authorities*, with a contribution by T.F. King. Integrated Cultural Resource Management Plan, Volume 3. Submitted to the U.S. Air Force. TetraTech, Inc., Santa Barbara.

NETROnline
2023 Historic Aerials 1959, 1966, 1967, 1978, 1985, 1997, 2002, and 2020. https://www.historicaerials.com/viewer.

O'Connell, J. F., P.J. Wilke, T.F. King, and C.L. Mix (editors)
1974 *Perris Reservoir Archaeology, Late Demographic Change in Southeastern California*. State of California Resources Agency, Department of Parks and Recreation Archaeological Report No. 14. Sacramento.

Riverside County Assessor
2023 Property search for APN 300260001. Accessed online at https://rivcoview.rivcoacr.org/#/Property-Search.

Roosevelt, A.C., M. Lima da Costa, C. Lopes Machado, M. Michab, N. Mercier, H. Valladas, J. Feathers, W. Barnett, M. Imazio da Silveira, A. Henderson, J. Silva, B. Chernoff, D. S. Reese, J.A. Holman, N. Toth, and K. Schick
1996 Paleoindian Cave Dwellers in the Amazon: The Peopling of the Americas. *Science* 272:73-384.

Schaefer, Jerry
1994 The Challenge of Archaeological Research in the Colorado River: Recent Approaches and Discoveries. *Journal of California and Great Basin Anthropology* 16(1):60–80.

Strong, W.D.
1929 Aboriginal Society in Southern California. University of California Publications in American Archaeology and Ethnology 26 (1): 1-358.

TopoView
2023 Historic Topographic Maps. https://ngmdb.usgs.gov/topoview/viewer/#15/33.8198/-117.2337. Accessed August 25, 2023.

Wallace, William J.
1978 Post-Pleistocene Archaeology, 9000 to 2000 B.C. In *California Indians*, edited by R.F. Heizer and M.A. Whipple, pp. 186-210. University of California Press, Los Angeles.

Warren, Claude N.
1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams, pp. 1-15. Eastern New Mexico University Contributions in Archaeology 1(3).

1980 The Archaeology and Archaeological Resources of the Amargosa-Mojave Basin Planning Units. In *A Cultural Resources Overview for the Amargosa-Mojave Basin Planning Units*, edited by C.N. Warren, M. Knack, and E. von Till Warren. U.S. Bureau of Land Management, Cultural Resources Publications, Anthropology/History, Riverside, California.

1984 The Desert Region. In *California Archaeology*, by Michael Moratto, pp. 339-430. Academic Press, New York

Wilke, Phillip J.
1974 Settlement and Subsistence at Perris Reservoir: A Summary of Archaeological Investigations. In *Perris Reservoir Archeology: Late Prehistoric Demographic Change in Southeastern California,* J.F. O'Connell, P. J. Wilke, T.F. King, and C.L. Mix, eds., pp. 20-29. California Archeological Reports No. 14. Sacramento: California Department of Parks and Recreation.

Appendix A.
Native American Coordination

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NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

October 3, 2023

Joy Vyhmeister
Chronicle Heritage, LLC / PaleoWest, LLC

Via Email to: jvyhmeister@chronicleheritage.com

Re: Perris Marketplace Project, Riverside County

Dear Ms. Vyhmeister:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Pechanga Band of Indians on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
10/3/2023

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Agua Caliente Band of Cahuilla Indians	F	Patricia Garcia, Director of Historic Preservation	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6907	(760) 699-6919	pagarcia@aguacaliente.net	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	7/20/2023
Augustine Band of Cahuilla Mission Indians	F	Amanda Vance, Chairperson	84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722	(760) 369-7161	hhaines@augustinetribe.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cabazon Band of Mission Indians	F	Doug Welmas, Chairperson	84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla Band of Indians	F	BobbyRay Esaprza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	Daniel Salgado, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 972-2568	(951) 763-2808	chairman@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson	P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712		Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Pala Band of Mission Indians	F	Alexis Wallick, Assistant THPO	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3537		awallick@palatribe.com	Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego	3/23/2023
Pala Band of Mission Indians	F	Shasta Gaughen, Tribal Historic Preservation Officer	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3515	(760) 742-3189	sgaughen@palatribe.com	Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego	3/23/2023
Pechanga Band of Indians	F	Tuba Ebru Ozdil, Pechanga Cultural Analyst	P.O. Box 2183 Temecula, CA, 92593	(951) 770-6313	(951) 695-1778	eozdil@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Pechanga Band of Indians	F	Steve Bodmer, General Counsel for Pechanga Band of Indians	P.O. Box 1477 Temecula, CA, 92593	(951) 770-6171	(951) 695-1778	sbodmer@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator	P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	8/16/2016
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson	P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Rincon Band of Luiseno Indians	F	Denise Turner Walsh, Attorney General	One Government Center Lane Valley Center, CA, 92082	(760) 689-5727		dwalsh@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	7/7/2023
Rincon Band of Luiseno Indians	F	Joseph Linton, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 803-3548		jlinton@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer	One Government Center Lane Valley Center, CA, 92082	(760) 648-3000		cmadrigal@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Laurie Gonzalez, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 484-4835		lgonzalez@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Santa Rosa Band of Cahuilla Indians	F	Lovina Redner, Tribal Chair	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	lsaul@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Torres-Martinez Desert Cahuilla Indians	F	Cultural Committee,	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300	(760) 397-8146	Cultural-Committee@torresmartinez-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Perris Marketplace Project, Riverside County.

Record: PROJ-2023-004706
Report Type: List of Tribes
Counties: Riverside
NAHC Group: All

PALEOWEST

T: 626.408.8006
info@paleowest.com

LOS ANGELES COUNTY
55 E. Huntington Drive, Suite 238
Arcadia, CA 91006

August 25, 2023

Ann Brierty, THPO
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA, 92220
Transmitted via email to abrierty@morongo-nsn.gov

RE: Cultural Resource Study in Support of the Perris Marketplace Project, Perris, Riverside County, California

Dear Ann Brierty,

On behalf of the Birdseye Planning Group (BPG), PaleoWest, LLC (PaleoWest) is conducting a cultural resource study in support of the Perris Marketplace Project (Project), in the city of Perris, Riverside County, California. The Project is located on the southeast corner of Perris Boulevard and Placentia Avenue in Perris, California (Assessor Parcel Number 306-030-022) as depicted on the Perris, California (1980) USGS 7.5-minute topographic map (see attached map). The Project would develop a commercial real estate center most likely anchored by a grocery store on an approximately 10.455-acre site. The Project site is currently vacant land with modern residential housing to the east and south, modern residential housing across Placentia Avenue to the north, and commercial or industrial development across Perris Boulevard to the west.

The Project is subject to the California Environmental Quality Act and the City of Perris (City) is the lead agency.

A cultural resource records search and literature review was completed at the Eastern Information Center of the California Historical Resource Information System housed at University of California, Riverside on August 8, 2023. The records search indicated that eight cultural resources were identified within one mile of the Project area. Of the eight resources, one is a historic-period archaeological resource, and seven are historic period built-environment resources. None of the eight previously documented cultural resources lie within or immediately adjacent to the Project area.

Additionally, PaleoWest requested a search of the Native American Heritage Commission's (NAHC's) *Sacred Lands File (SLF)* on August 18, 2023. The NAHC has not yet responded with results of the SLF, however we are writing as part of the cultural resources investigation to find out if you have any knowledge of cultural resources that may be impacted by the proposed Project. Please note, this letter ***does not*** constitute government-to-government consultation pursuant to Assembly Bill 52.

Completion of a pedestrian survey of the Project by PaleoWest archaeologists is anticipated for late August or early September.

Please contact me at (626) 221-9857 or joyvyhmeister@paleowest.com if you have any information or concerns pertaining to the proposed Project.

Sincerely,

Joy L. Vyhmeister

Joy Vyhmeister, M.A., RPA
Senior Archaeologist/Team Lead
PaleoWest

Native American Contact/Response Matrix				
Recommended Contacts (Name and Tribal Affiliation)	**Contact Info**	**Initial Contact**	**Follow-up Contact**	**Comments/Notes**
Reid Milanovich, Chairperson Agua Caliente Band of Cahuilla Indians 5401 Dinah Shore Drive Palm Springs, CA, 92264	Phone: (760) 699 - 6800 Fax: (760) 699-6919 lavilles@aguacaliente.net	Letter sent via email 8/25/2023	Received response via email on 8/29/2023	Luz Salazar, Cultural Resources Analyst with the Agua Caliente Band of Cahuilla Indians Tribal Historic Preservation Office responded via email on August 29, 2023, stating that "the Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Perris Marketplace project. We have reviewed the documents and have the following comments: - A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in the area - A copy of the records search with associated survey reports and site records from the information center - Copies of any cultural resource documentation (report and site records) generated in connection with this project. Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1137. You may also email ACBCI-THPO@aguacaliente.net."
Patricia Garcia-Plotkin, Director Agua Caliente Band of Cahuilla Indians 5401 Dinah Shore Drive Palm Springs, CA, 92264	Phone: (760) 699 - 6907 Fax: (760) 699-6924 ACBCI-THPO@aguacaliente.net	Letter sent via email 8/25/2023	Received response via email on 8/29/2023	See above comment.
Amanda Vance, Chairperson Augustine Band of Cahuilla Mission Indians 84-001 Avenue 54 Coachella, CA, 92236	Phone: (760) 398 - 4722 Fax: (760) 369-7161 hhaines@augustinetribe.com	Letter sent via email 8/25/2023	Spoke to receptionist in Tribal Office on 10/3/23	Spoke to receptionist in the Tribal Office who requested that the letter sent via email previously be forwarded to jkirksey@augustinetribe.com. Resent letter on October 3, 2023.
Doug Welmas, Chairperson Cabazon Band of Mission Indians 84-245 Indio Springs Parkway Indio, CA, 92203	Phone: (760) 342 - 2593 Fax: (760) 347-7880 jstapp@cabazonindians-nsn.gov	Letter sent via email 8/25/2023	Left voicemail on 10/3/2023	
Daniel Salgado, Chairperson Cahuilla Band of Indians 52701 U.S. Highway 371 Anza, CA, 92539	Phone: (951) 763 - 5549 Fax: (951) 763-2808 Chairman@cahuilla.net ask for BobbyRay Esparza, Tribal Cultural Director when calling	Letter sent via email 8/25/2023	Unable to leave voicemail because User's mailbox cannot accept new messages on 10/3/23	
Ray Chapparosa, Chairperson Los Coyotes Band of Cahuilla and Cupeño Indians P.O. Box 189 Warner Springs, CA, 92086-0189	Phone: (760) 782 - 0711 Fax: (760) 782-0712 EPA Dept: (760) 782-0712 rchapparosa@loscoyotesband.org	Letter sent via email 8/25/2023	Spoke with EPA Department on 10/3/23	Spoke with EPA Department of Los Coyotes Band of Cahuilla and Cupeño Indians on October 3, 2023. The Department stated that the letter has been reviewed and they have no further comments.
Robert Martin, Chairperson Morongo Band of Mission Indians 12700 Pumarra Road Banning, CA, 92220	Phone: (951) 755 - 5110 Fax: (951) 755-5177 abrierty@morongo-nsn.gov	Letter sent via email 8/25/2023	Left voicemail on 10/3/2023	
Ann Brierty, THPO Morongo Band of Mission Indians 12700 Pumarra Road Banning, CA, 92220	Phone: (951) 755 - 5259 Fax: (951) 572-6004 abrierty@morongo-nsn.gov	Letter sent via email 8/25/2023	Left voicemail on 10/3/2023	

Shasta Gaughen, Tribal Historic Preservation Officer Pala Band of Mission Indians PMB 50, 35008 Pala Temecula Rd. Pala, CA, 92059	Phone: (760) 891 - 3515 Fax: (760) 742-3189 sgaughen@palatribe.com	Letter sent via email 8/25/2023	Left voicemail on 10/3/2023	
Mark Macarro, Chairperson Pechanga Band of Indians P.O. Box 1477 Temecula, CA, 92593	Phone: (951) 770 - 6000 Fax: (951) 695-1778 epreston@pechanga-nsn.gov	Letter sent via email 8/25/2023	Received response via email on 8/29/2023	See below comment.
Paul Macarro, Cultural Resources Coordinator Pechanga Band of Indians P.O. Box 1477 Temecula, CA, 92593	Phone: (951) 770 - 6306 Fax: (951) 506-9491 pmacarro@pechanga-nsn.gov	Letter sent via email 8/25/2023	Received response via email on 8/29/2023	Paul E. Macarro, Cultural Coordinator for the Pechanga Reservation, responded via email on August 29, 2023, stating that "The Pechanga Band of Indians ("the Tribe") appreciates your request for information regarding the above referenced Project. After reviewing the provided maps and our internal documents we have determined that the Project area is not within Reservation land's, although it is located in Our Ancestral Territory. At this time, we are interested in participating in this Project based upon Our 'Ayelkwish/Traditional Knowledge of the area and its location, which is within hail of three Sacred Land's Filings. The first of these Traditional Cultural Properties is located 562 yards to the southwest, the second a Traditional Cultural Landscape is 1.44 miles due east, and the third another TCL, is located north-northwest of this proposed-Project. At 1.05-1.10 miles due west of the Project was a prominent Ancestral Trail. Characterized as historic trail, it is depicted on the 1874 USGS Plat Map as "The Road to Timicula" (sic). Further northeast, this same trail becomes recognized as the Juan Bautista de Anza Trail. Aerial imagery-records only go back to 1959 but reveal much of this Development's-envelope being utilized as a horse training facility. This Property's-version of a mid-20th Century horse-facility, followed a similar-pattern as horse facilities in the Temecula-area namely, these facilities/tracks were developed from very level and former farmland soils; so only minor scarification was often needed. The Tribe asserts a majority of the Project's native soils still remain intact below the plow-zone. This Project is situated .94 of- a-mile from the main feeder into the San Jacinto River. This River once tied together, many of our Ancestral Villages spanning from Mystic Lake to Lake Elsinore. Although formally channelized in the mid-20th Century, it is this close proximity to these Regional-waterways which is highly concerning to the Tribe. When considering Our Culture's burial practices, such an adjacency to perennial waterways often increases impacts to our Ancestral sacred sites."
Manfred Scott, Acting Chairman Kw'ts'an Cultural Committee Quechan Tribe of the Fort Yuma Reservation P.O. Box 1899 Yuma, AZ, 85366	Phone: (928) 210 - 8739 culturalcommittee@quechantribe.com	Letter sent via email 8/25/2023	Forwarded email to additional addresses on 10/3/23	Using information gained from outreach for another Project, we forwarded the original email to scottmanfred@yahoo.com and tribaladministrator@quechantribe.com as well.
Jill McCormick, Historic Preservation Officer Quechan Tribe of the Fort Yuma Reservation P.O. Box 1899 Yuma, AZ, 85366	Phone: (928) 261 - 0254 historicpreservation@quechantribe.com	Email returned 8/25/2023; sent via USPS 8/26/2023	Left voicemail on 10/3/2023	

Joseph Hamilton, Chairperson Ramona Band of Cahuilla P.O. Box 391670 Anza, CA, 92539	Phone: (951) 763 - 4105 Fax: (951) 763-4325 admin@ramona-nsn.gov	Letter sent via email 8/25/2023	Mailbox is full and unable to accept new messages on 10/3/23	
John Gomez, Environmental Coordinator Ramona Band of Cahuilla P. O. Box 391670 Anza, CA, 92539	Phone: (951) 763 - 4105 Cell: 951-941-4943 Fax: (951) 763-4325 jgomez@ramona-nsn.gov	Letter sent via email 8/25/2023	Left voicemail on 10/3/2023	
Bo Mazzetti, Chairperson Rincon Band of Luiseno Indians One Government Center Lane Valley Center, CA, 92082	Phone: (760) 749 - 1051 Fax: (760) 749-5144 bomazzetti@aol.com	Letter sent via email 8/25/2023	Received response via email on 9/27/2023	See below comment.
Cheryl Madrigal, Tribal Historic Preservation Officer Rincon Band of Luiseno Indians One Government Center Lane Valley Center, CA, 92082	Phone: (760) 297 - 2635 crd@rincon-nsn.gov	Letter sent via email 8/25/2023	Received response via email on 9/27/2023	Shuuluk Linton, Tribal Historic Preservation Office Coordinator for the Rincon Band of Luiseño Indians, responded via email on September 27, 2023, stating "This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Tribe"), a federally recognized Indian tribe and sovereign government. We have received your notification regarding the above referenced project, and we thank you for the opportunity to consult on the project. The identified location is within the Traditional Use Area of the Luiseño people and within the Tribe's specific Area of Historic Interest (AHI). As such, the Rincon Band is traditionally and culturally affiliated to the project area. After reviewing the provided documents and our internal information, no cultural resource information is available to share at this time. The Tribe therefore has no comments, we recommend that you contact local tribes as they are closer to the project and may have pertinent information. Please forward a final copy of the cultural resources study upon completion to the Rincon Band. If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 749 1092 ext. 320 or via electronic mail at slinton@rincon-nsn.gov. Thank you for the opportunity to protect and preserve our cultural assets."
Lovina Redner, Tribal Chair Santa Rosa Band of Cahuilla Indians P.O. Box 391820 Anza, CA, 92539	Phone: (951) 659 - 2700 Fax: (951) 659-2228 lsaul@santarosa-nsn.gov	Letter sent via email 8/25/2023	Spoke with Tribal Office and left message on 10/3/23	
Joseph Ontiveros, Cultural Resource Department Soboba Band of Luiseno Indians P.O. BOX 487 San Jacinto, CA, 92581	Phone: (951) 663 - 5279 Fax: (951) 654-4198 jontiveros@soboba-nsn.gov	Letter sent via email 8/25/2023	Spoke with Joseph Ontiveros on 10/3/23	Spoke with Joseph Ontiveros of the Soboba Band of Luiseno Indians Cultural Resources Department on October 3, 2023, who stated that the entire area of Perris has numerous village sites that have been identified and the Tribe has significant information to share regarding the area. Soboba is more than willing to disclose this significant information to the agency during consultation.
Isaiah Vivanco, Chairperson Soboba Band of Luiseno Indians P. O. Box 487 San Jacinto, CA, 92581	Phone: (951) 654 - 5544 Fax: (951) 654-4198 ivivanco@soboba-nsn.gov	Letter sent via email 8/25/2023	N/A	

Cultural Committee Torres-Martinez Desert Cahuilla Indians P.O. Box 1160 Thermal, CA, 9227	~~Phone: (760) 397 - 0300~~ ~~Fax: (760) 397-8146~~ ~~Cultural-Committee@torresmartineznsn.Gov~~ Abraham Becerra 760-234-2363, abecerra@tmdci.org, Cultural Resource Coordinator and Bennae Calac Board President Tribal Advisor/Business Development (760) 617-2872 Nativegrounds@aol.com	Letter sent via email 8/25/2023	Spoke with Abraham Becerra on 10/3/23	Spoke with Cultural Resource Coordinator and Board President for the Torres-Martinez Desert Cahuilla Indians, Abraham Becerra on October 3, 2023, who stated that the Tribe does not have any comments or concerns for the City of Perris.

AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-041-2023-012

August 29, 2023

[VIA EMAIL TO:jvyhmeister@paleowest.com]
PaleoWest Archaeology
Ms. Joy Vyhmeister
301 9th Street
Redlands, California 92374

Re: Perris Marketplace Project

Dear Ms. Joy Vyhmeister,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Perris Marketplace project. We have reviewed the documents and have the following comments:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1137. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Luz Salazar
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

PECHANGA CULTURAL RESOURCES

Pechanga Band of Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 770-6300 • Fax (951) 506-9491

August 29, 2023

VIA E-Mail and USPS
Joy Vyhmeister, M.A., RPA
Senior Archaeologist/Team Lead
Chronicle Heritage
301 9th Street
Suite 114
Redlands, CA, 92374

RE: Request for Information for the Perris Marketplace Project, City of Perris, Riverside County, California

Dear Ms. Vyhmeister,

The Pechanga Band of Indians ("the Tribe") appreciates your request for information regarding the above referenced Project. After reviewing the provided maps and our internal documents we have determined that the Project area is not within Reservation land's, although it is located in the Our Ancestral Territory. At this time, we are interested in participating in this Project based upon Our 'Ayélkwish/Traditional Knowledge of the area and its location, which is within hail of three Sacred Land's Filings. The first of these Traditional Cultural Properties is located 562 yards to the southwest, the second a Traditional Cultural Landscape is 1.44 miles due east, and the third another TCL, is located north-northwest of this proposed-Project. At 1.05-1.10 miles due west of the Project was a prominent Ancestral Trail. Characterized as historic trail, it is depicted on the 1874 USGS Plat Map as *"The Road to Timicula"* (sic). Further northeast, this same trail becomes recognized as the Juan Bautista de Anza Trail. Aerial imagery-records only go back to 1959 but reveal much of this Development's-envelope being utilized as a horse training facility. This Property's-version of a mid-20th Century horse-facility, followed a similar-pattern as horse facilities in the Temecula-area namely, these facilities/tracks were developed from very level and former farmland soils; so only minor scarification was often needed. The Tribe asserts a majority of the Project's native soils still remain intact below the plow-zone. This Project is situated .94 of-a-mile from the main feeder into the San Jacinto River. This River once tied together, many of our Ancestral Villages spanning from Mystic Lake to Lake Elsinore. Although formally channelized in the mid-20th Century, it is this close proximity to these Regional-waterways which is highly concerning to the Tribe. When considering Our Culture's burial practices, such an adjacency to perennial waterways often increases impacts to our Ancestral sacred sites.

Considering this Project's proximity to known Ancestral human-remains, recalling the nearness to three Traditional Cultural Properties, in light of the adjacency of the nearby bluelines, and because of Pechanga's longstanding project experience within this Project's vicinity the Tribe

therefore, is interested in participating in this Project. The Tribe believes that the possibility of recovering sensitive subsurface resources during ground-disturbing activities for this Project is extremely high.

The Tribe is dedicated to providing comprehensive cultural information to you and your firm for inclusion in the archaeological study as well as to the Lead Agency for CEQA review. At this time, the Tribe requests the following so we may continue the consultation process and to provide adequate and appropriate recommendations for the Project:

1) Notification once the Project begins the entitlement process, if it has not already;
2) Copies of all applicable archaeological reports, site records, proposed grading plans and environmental documents (EA/IS/MND/EIR, etc);
3) Government-to-government consultation with the Lead Agency; and
4) The Tribe believes that monitoring by a Riverside County qualified archaeologist and a professional Pechanga Tribal Monitor may be required during earthmoving activities. Therefore, the Tribe reserves its right to make additional comments and recommendations once the environmental documents have been received and fully reviewed.
5) In the event that subsurface cultural resources are identified, the Tribe requests consultation with the Project proponent and Lead Agency regarding the treatment and disposition of all artifacts.

As a Sovereign governmental entity, the Tribe is entitled to appropriate and adequate government-to-government consultation regarding the proposed Project. We would like you and your client to know that the Tribe does not consider initial inquiry letters from project consultants to constitute appropriate government-to-government consultation, but rather tools to obtain further information about the Project area. Therefore, the Tribe reserves its rights to participate in the formal environmental review process, including government-to-government consultation with the Lead Agency, and requests to be included in all correspondence regarding this Project.

Please note that we are interested in participating in surveys within 'Atáaxum/Luiseño Ancestral Territory. Prior to conducting any surveys, please contact the Cultural Department to schedule specifics. If you have any additional questions or comments, please contact me at pmacarro@pechanga-nsn.gov or directly at 951-770-6306.

Sincerely,

Paul E. Macarro

Paul E. Macarro
Cultural Coordinator
Pechanga Reservation

Rincon Band of Luiseño Indians
CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082
(760) 749-1092 | Fax: (760) 749-8901 | rincon-nsn.gov

September 27, 2023

Sent via email: joyvyhmeister@paleowest.com

Re: Perris Marketplace Project, City of Perris, Riverside County, California

Dear Ms. Joy Vyhmeister,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Tribe"), a federally recognized Indian tribe and sovereign government. We have received your notification regarding the above referenced project, and we thank you for the opportunity to consult on the project. The identified location is within the Traditional Use Area of the Luiseño people and within the Tribe's specific Area of Historic Interest (AHI). As such, the Rincon Band is traditionally and culturally affiliated to the project area.

After reviewing the provided documents and our internal information, no cultural resource information is available to share at this time. The Tribe therefore has no comments, we recommend that you contact local tribes as they are closer to the project and may have pertinent information. Please forward a final copy of the cultural resources study upon completion to the Rincon Band.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 749 1092 ext. 320 or via electronic mail at slinton@rincon-nsn.gov. Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Shuuluk Linton

Shuuluk Linton
Tribal Historic Preservation Office Coordinator
Cultural Resources Department

Earth Strata Geotechnical Services, Inc.
Geotechnical, Environmental and Materials Testing Consultants
www.ESGSINC.com (951) 461-4028

May 31, 2024

Project No. 245753-10A

VENTURA ENGINEERING
27393 Ynez Road
Temecula, CA 92591

Subject: **Preliminary Geotechnical Interpretive Report, Proposed Vallarta Supermarkets, Assessor's Parcel Number 300-260-001, Located South of Placentia Avenue and East of Perris Boulevard, City of Perris, Riverside County, California**

Earth Strata Geotechnical Services is pleased to present our preliminary geotechnical interpretive report for the proposed Vallarta Supermarkets, Assessor's Parcel Number 300-260-001, located South of Placentia Avenue and East of Perris Boulevard in the City of Perris, Riverside County, California. The purpose of this study is to evaluate the nature, distribution, engineering properties, and geologic strata underlying the site with respect to the proposed development.

Earth Strata Geotechnical Services appreciates the opportunity to offer our consultation and advice on this project. In the event that you have any questions, please do not hesitate to contact the undersigned at your earliest convenience.

Respectfully submitted,

EARTH STRATA GEOTECHNICAL SERVICES

Stephen M. Poole, PE, GE
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
STEPHEN MICHAEL POOLE
NO. 692
GEOTECHNICAL
STATE OF CALIFORNIA

Aaron G. Wood, PG, CEG
Principal Geologist

CERTIFIED ENGINEERING GEOLOGIST
AARON G. WOOD
No. 2550
Exp. 6/30/25
STATE OF CALIFORNIA

SMP/ls

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Attachments:

INTRODUCTION

Earth Strata Geotechnical Services is pleased to present our preliminary geotechnical interpretive report for the proposed development. The purpose of this study was to evaluate the nature, distribution, engineering properties, and geologic strata underlying the site with respect to the proposed development, and then provide preliminary grading and foundation design recommendations based on the plans you provided. The general location of the subject property is indicated on the Vicinity Map, Figure 1. The plans you provided were used as the base map to show geologic conditions within the subject site, see Geotechnical Map, Plate 1.

SITE DESCRIPTION

The subject property is located South of Placentia Avenue and East of Perris Boulevard in the City of Perris, Riverside County, California. The approximate location of the site is shown on the Vicinity Map, Figure 1.

The subject property is comprised of approximately 10.45 acres of undeveloped land. The site has not been graded. Topographic relief at the subject property is relatively low with the terrain being generally flat. Drainage within the subject property generally flows to the northwest.

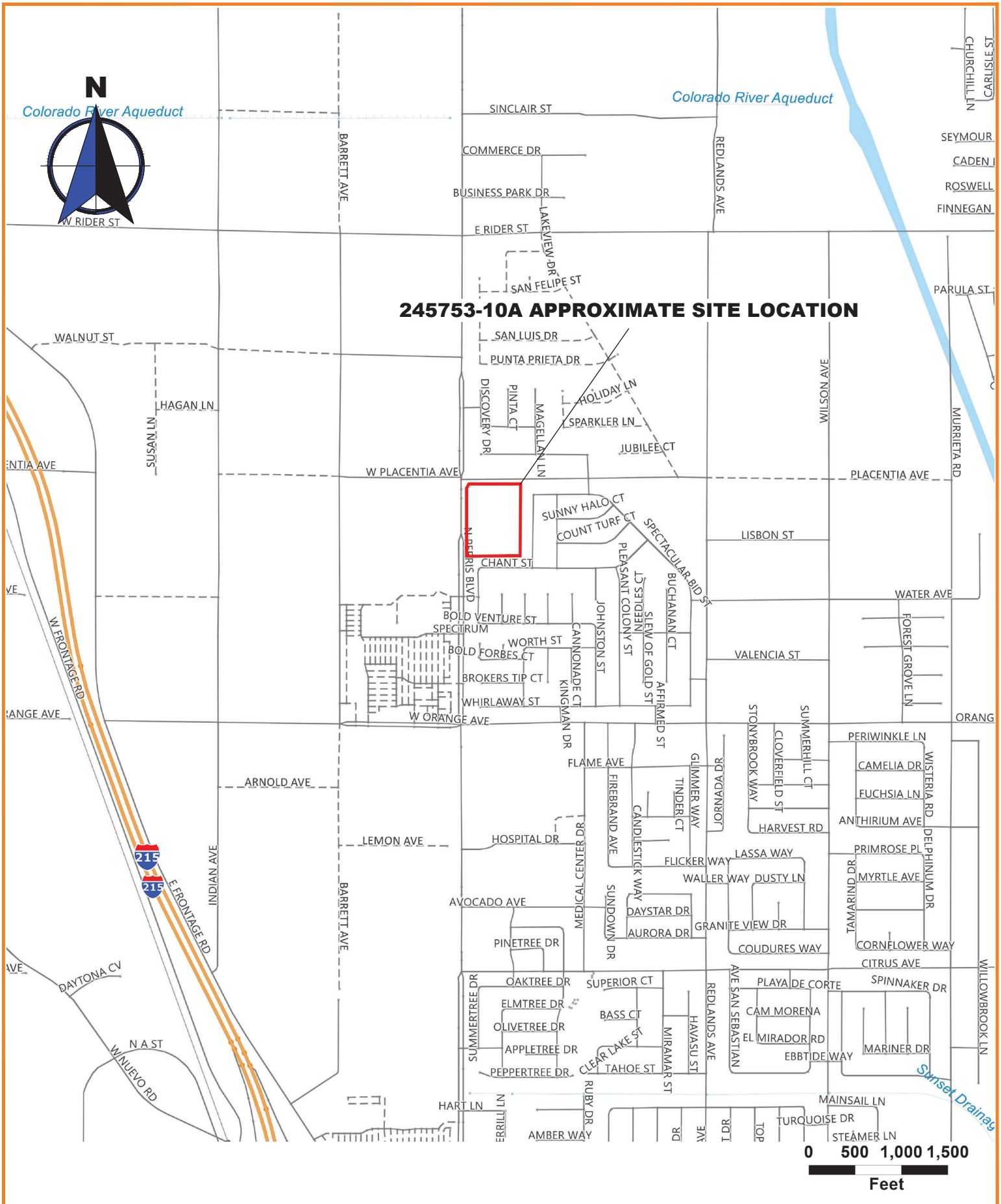
The site is currently bordered by residential to the north, east, and south as well as a commercial development to the west.

PROPOSED DEVELOPMENT AND GRADING

The proposed commercial development is expected to consist of concrete, wood or steel framed one- and/or two-story structures utilizing slab on grade construction with associated streets, landscape areas, and utilities. The current development plans include one building pad positioned throughout the site.

The plans provided by you were utilized in our exploration and form the base for our Geotechnical Map, Plate 1.

Formal plans have not been prepared and await the conclusions and recommendations of this report.



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www.ESGSINC.com (951) 397-8315

PROPOSED VALLARTA SUPERMARKETS	245753-10A
VICINITY MAP	SEE BAR SCALE
MAY 2024	FIGURE 1

FIELD EXPLORATION AND LABORATORY TESTING

Field Exploration

Subsurface exploration within the subject site was performed in May 2024 for the exploratory excavations. A truck mounted hollow-stem-auger drill rig was utilized to drill 3 borings throughout the site to a maximum depth of 11 feet. An underground utilities clearance was obtained from Underground Service Alert of Southern California, prior to the subsurface exploration.

Earth materials encountered during exploration were classified and logged in general accordance with the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) of ASTM D 2488. Upon completion of laboratory testing, exploratory logs and sample descriptions may have been reconciled to reflect laboratory test results with regard to ASTM D 2487.

Associated with the subsurface exploration was the collection of bulk (disturbed) samples and relatively undisturbed samples of earth materials for laboratory testing and analysis. The relatively undisturbed samples were obtained with a 3 inch outside diameter modified California split-spoon sampler lined with 1-inch-high brass rings. Samples obtained using a hollow stem auger drill rig, were mechanically driven with successive 30 inch drops of a 140-pound automatic trip safety hammer. The blow count per one-foot increment was recorded in the boring logs. The central portions of the driven samples were placed in sealed containers and transported to our laboratory for testing and analysis. The approximate exploratory locations are shown on Plate 1 and descriptive logs are presented in Appendix B.

Laboratory Testing

Maximum dry density/optimum moisture content, expansion potential, R-value, pH, resistivity, sulfate content, chloride content, and in-situ density/moisture content were determined for selected undisturbed and bulk samples of earth materials, considered representative of those encountered. An evaluation of the test data is reflected throughout the Conclusions and Recommendations section of this report. A brief description of laboratory test criteria and summaries of test data are presented in Appendix C.

FINDINGS

Regional Geology

Regionally, the site is located in the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by northwest trending steep mountain ranges separated by sediment filled elongated valleys. The dominant structural geologic features reflect the northwest trend of the province. Associated with and subparallel to the San Andreas Fault are the San Jacinto Fault, Newport-Inglewood, and the Whittier-Elsinore Fault. The Santa Ana Mountains abut the west side of the Elsinore Fault while the Perris Block forms the other side of the fault zone to the east. The Perris Block is bounded to the east by the San Jacinto Fault. The northern perimeter of the Los Angeles basin forms part of a northerly dipping blind thrust fault at the boundary between the Peninsular Ranges Province and the Transverse Range Province.

The mountainous regions within the Peninsular Ranges Province are comprised of Pre-Cretaceous, metasedimentary, and metavolcanic rocks along with Cretaceous plutonic rocks of the Southern California

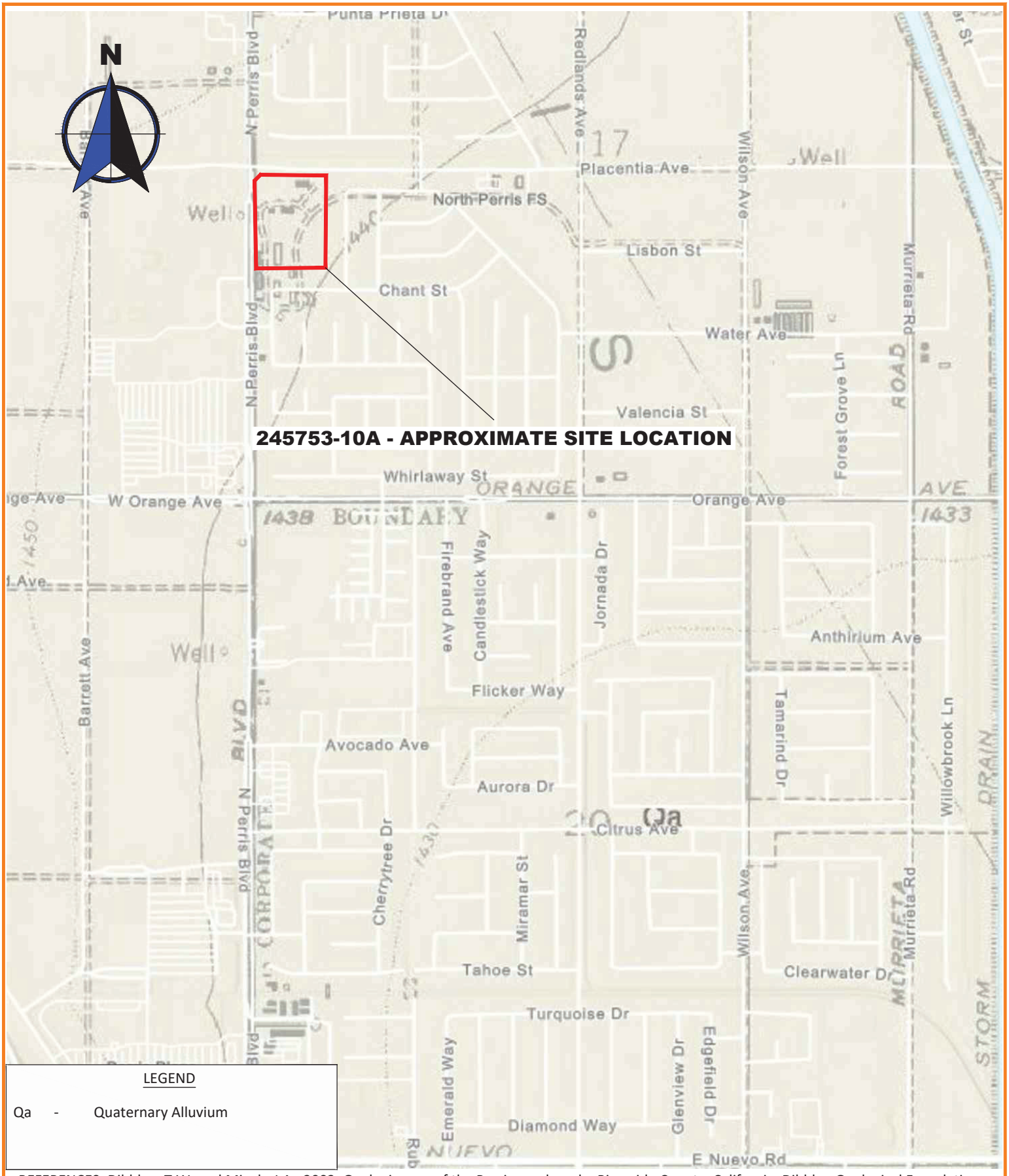
Batholith. The low lying areas are primarily comprised of Tertiary and Quaternary non-marine alluvial sediments consisting of alluvial deposits, sandstones, claystones, siltstones, conglomerates, and occasional volcanic units. A map illustrating the regional geology is presented on the Regional Geologic Map, Figure 2.

Local Geology

The earth materials on the site are primarily comprised of topsoil and Quaternary alluvial materials. A general description of the dominant earth materials observed on the site is provided below:

- Artificial Fill, Undocumented (map symbol Afu): Undocumented artificial fill materials were encountered throughout the site within the upper 1 to 2 feet during exploration. These materials are typically locally derived from the native materials and consist generally of brown silty sand. These materials are generally inconsistent, poorly consolidated fills.

- Quaternary Alluvium (map symbol Qa): Quaternary alluvium was encountered to a maximum depth explored. These alluvial deposits consist predominately of brown, fine to coarse grained silty sand. These deposits were generally noted to be in a moist, medium dense state.



LEGEND

Qa - Quaternary Alluvium

REFERENCES: Dibblee, T.W. and Minch, J.A., 2003, Geologic map of the Perris quadrangle, Riverside County, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-112, 1:24,000.

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PROPOSED VALLARTA SUPERMARKETS		245753-10A
REGIONAL GEOLOGIC MAP	SCALE 1:18,056	
	MAY 2024	FIGURE 2

Faulting

The project is located in a seismically active region and as a result, significant ground shaking will likely impact the site within the design life of the proposed project. The geologic structure of the entire southern California area is dominated by northwest-trending faults associated with the San Andreas Fault system, which accommodates for most of the right lateral movement associated with the relative motion between the Pacific and North American tectonic plates. Known active faults within this system include the Newport-Inglewood, Whittier-Elsinore, San Jacinto and San Andreas Faults.

No active faults are known to project through the site and the site is not located within an Alquist-Priolo Earthquake Fault Zone, established by the State of California to restrict the construction of new habitable structures across identifiable traces of known active faults. An active fault is defined by the State of California as having surface displacement within the past 11,000 years or during the Holocene geologic time period. Based on our mapping of the subject site, review of current and historical aerial imagery, lack of lineaments indicative of active faulting, and the data compiled during the preparation of this report, it is our interpretation that the potential for surface rupture to adversely impact the proposed structures is very low to remote.

Based on our review of regional geologic maps and applicable computer programs (USGS Seismic Design Maps, Caltrans ARS online, and USGS Earthquake Hazard Programs), the San Jacinto Fault with an approximate source to site distance of 13.17 kilometers is the closest known active fault anticipated to produce the highest ground accelerations, with an anticipated maximum modal magnitude of 7.62. A list of faults as well as a list of significant historical seismic events within a 100km radius of the subject site are included in Appendix D.

Landslides

Landslide debris was not observed during our subsurface exploration and no ancient landslides are known to exist on the site. No landslides are known to exist, or have been mapped, in the vicinity of the site. Geologic mapping of the site conducted during our investigation, and review of aerial imagery of the site, reveal no geomorphic expressions indicative of landsliding.

CONCLUSIONS AND RECOMMENDATIONS

General

From geotechnical and engineering geologic points of view, the subject property is considered suitable for the proposed development, provided the following conclusions and recommendations are incorporated into the plans and are implemented during construction.

Earthwork

Earthwork and Grading

The provisions of the 2022 California Building Code (CBC), including the General Earthwork and Grading Specifications in the last Appendix of this report, should be applied to all earthwork and grading operations, as well as in accordance with all applicable grading codes and requirements of the appropriate reviewing agency. Unless specifically revised or amended herein, grading operations should also be performed in accordance with applicable provisions of our General Earthwork and Grading Specifications within the last appendix of this report.

Clearing and Grubbing

Vegetation including trees, grasses, weeds, brush, shrubs, or any other debris should be stripped from the areas to be graded and properly disposed of offsite. In addition, laborers should be utilized to remove any roots, branches, or other deleterious materials during grading operations.

Earth Strata Geotechnical Services should be notified at the appropriate times to provide observation and testing services during Clearing and Grubbing operations. Any buried structures or unanticipated conditions should be brought to our immediate attention.

Excavation Characteristics

Based on the results of our exploration and experience with similar projects in similar settings, the near surface earth materials, will be readily excavated with conventional earth moving equipment.

Groundwater

Groundwater was not observed during our subsurface exploration.

Ground Preparation for Fill Areas

For each area to receive compacted fill, the removal of low density, compressible earth materials, such as upper alluvial materials, and undocumented artificial fill, should continue until firm competent alluvium is encountered. Removal excavations are subject to verification by the project engineer, geologist or their representative. Prior to placing compacted fills, the exposed bottom in each removal area should be scarified to a depth of 6 inches or more, watered or air dried as necessary to achieve near optimum moisture conditions and then compacted to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557.

The intent of remedial grading is to diminish the potential for hydro-consolidation, slope instability, and/or settlement. Remedial grading should extend beyond the perimeter of the proposed structures a horizontal distance equal to the depth of excavation or a minimum of 5 feet, whichever is greater. For cursory purposes the anticipated removal depths are shown on the enclosed Geotechnical Map, Plate 1. In general, the anticipated removal depths should vary from 4 to 6 feet below existing grade.

Wet Removals

Wet alluvial materials will probably not be encountered within the low lying areas of the site. If removals of wet alluvial materials are required, special grading equipment and procedures can greatly reduce overall costs. Careful planning by an experienced grading contractor can reduce the need for special equipment, such as swamp cats, draglines, excavators, pumps, and top loading earthmovers. Possible solutions may include the placement of imported angular rock and/or geotextile ground reinforcement. More specific recommendations can be provided based on the actual conditions encountered. Drying or mixing of wet materials with dry materials will be needed to bring the wet materials to near optimum moisture prior to placing wet materials into compacted fills.

Oversize Rock

Oversize rock is not expected to be encountered during grading.

Compacted Fill Placement

Compacted fill materials should be placed in 6 to 8 inch maximum (uncompacted) lifts, watered or air dried as necessary to achieve uniform near optimum moisture content and then compacted to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557.

Import Earth Materials

Should import earth materials be needed to achieve final design grades, all potential import materials should be free of deleterious/oversize materials, non-expansive, and approved by the project geotechnical consultant prior to delivery onsite.

Fill Slopes

When properly constructed, fill slopes up to 10 feet high with inclinations of 2:1 (h:v) or flatter are considered to be grossly stable. Keyways are required at the toe of all fill slopes higher than 5 feet and steeper than 5:1 (h:v). Keyways should be a minimum of 10 feet wide and 2 feet into competent earth materials, as measured on the downhill side. In order to establish keyway removals, backcuts should be cut no steeper than 1:1 or as recommended by the geotechnical engineer or engineering geologist. Compacted fill should be benched into competent earth materials.

Cut Slopes

When properly constructed, cut slopes into alluvium up to 10 feet high with inclinations of 2:1 (h:v) or flatter are considered grossly stable. Cut slopes should be observed by the engineering geologist or his representative during grading, but are anticipated to be stable.

Stabilization Fills

Currently, stabilization fills will not be required for cut slopes in the alluvium. Our engineering geologist or his representative should be called to evaluate all slopes during grading. In the event that unfavorable geologic conditions are encountered, recommendations for stabilization fills or flatter slopes will be provided.

Fill Over Cut Slopes

The fill portion of fill over cut slopes should not be constructed until the cut portion of the slope has been cut to finish grade. The earth materials and geologic structure exposed along the cut slope should be evaluated with regard to suitability for compacted fills or foundations and for stability. If the cut materials are determined to be competent, then the construction of the keyway and subdrain system may commence or additional remedial recommendations will be provided.

Temporary Backcuts

It is the responsibility of the grading contractor to follow all Cal-OSHA requirements with regard to excavation safety. Where existing developments are upslope, adequate slope stability to protect those developments must be maintained. Temporary backcuts will be required to accomplish removals of unsuitable materials and possibly, to perform canyon removals, stabilization fills, and/or keyways. Backcuts should be excavated at a gradient of 1:1 (h:v) or flatter. Flatter backcuts may be required where geologic structure or earth materials are unfavorable. It is imperative that grading schedules minimize the exposure time of the unsupported excavations. All excavations should be stabilized within 30 days of initial excavation.

Cut/Fill Transitions

Cut/fill transitions should be eliminated from all building areas where the depth of fill placed within the "fill" portion exceeds proposed footing depths. This is to diminish distress to structures resulting from excessive differential settlement. The entire foundation of each structure should be founded on a uniform bearing material. This should be accomplished by overexcavating the "cut" portion and replacing the excavated materials as properly compacted fill. Refer to the following table for recommended depths of overexcavation.

DEPTH OF FILL ("fill" portion)	DEPTH OF OVEREXCAVATION ("cut" portion)
Up to 5 feet	Equal Depth
5 to 10 feet	5 feet
Greater than 10 feet	One-half the thickness of fill placed on the "fill" portion (10 feet maximum)

Overexcavation of the "cut" portion should extend beyond the building perimeter a horizontal distance equal to the depth of overexcavation or a minimum of 5 feet, whichever is greater.

Cut Areas

In cut areas, an area a minimum of 5 feet beyond the footprint of the proposed structures should overexcavated until; competent bottoms are achieved; to a minimum 3 feet below the proposed foundations; or per the Overexcavation Table above; (whichever is greater) and replaced with compacted fill. Final determination of areas that require overexcavation should be determined in the field by a representative of Earth Strata Geotechnical Services.

Shrinkage, Bulking and Subsidence

Volumetric changes in earth material quantities will occur when poorly consolidated earth materials are replaced with properly compacted fill. Estimates of the percent shrinkage/bulking factors for the various geologic units observed on the subject property are based on in-place densities and on the estimated average percent of relative compaction achieved during grading.

GEOLOGIC UNIT	SHRINKAGE (%)
Alluvium	8 to 12
	to

Subsidence from scarification and recompaction of exposed bottom surfaces is expected to be negligible to approximately 0.01 foot.

The estimates of shrinkage/bulking and subsidence are intended as an aid for project engineers in determining earthwork quantities. Since many variables can affect the accuracy of these estimates, they should be used with caution and contingency plans should be in place for balancing the project.

Geotechnical Observations

Clearing operations, removal of unsuitable materials, and general grading procedures should be observed by the project geotechnical consultant or his representative. No compacted fill should be placed without observations by the geotechnical consultant or his representative to verify the adequacy of the removals.

The project geotechnical consultant or his representative should be present to observe grading operations and to check that minimum compaction requirements and proper lift thicknesses are being met, as well as to verify compliance with the other recommendations presented herein.

Post Grading Considerations

Slope Landscaping and Maintenance

Adequate slope and building pad drainage is essential for the long term performance of the subject site. The gross stability of graded slopes should not be adversely affected, provided all drainage

provisions are properly constructed and maintained. Engineered slopes should be landscaped with deep rooted, drought tolerant maintenance free plant species, as recommended by the project landscape architect.

Site Drainage

Control of site drainage is important for the performance of the proposed project. Roof gutters are recommended for the proposed structures. Pad and roof drainage should be collected and transferred to driveways, adjacent streets, storm-drain facilities, or other locations approved by the building official in non-erosive drainage devices. Drainage should not be allowed to pond on the pad or against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters located within retaining wall backfill should be sealed to prevent moisture intrusion into the backfill. Planters located next to structures should be sealed to the depth of the footings. Drainage control devices require periodic cleaning, testing and maintenance to remain effective.

At a minimum, pad drainage should be designed at the minimum gradients required by the CBC. To divert water away from foundations, the ground surface adjacent to foundations should also be graded at the minimum gradients required per the CBC.

Utility Trenches

All utility trench backfill should be compacted at near optimum moisture to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557. For utility trench backfill within pavement areas the upper 6 inches of subgrade materials should be compacted to 95 percent of the maximum dry density determined by ASTM D 1557. This includes within the street right-of-ways, utility easements, under footings, sidewalks, driveways and building floor slabs, as well as within or adjacent to any slopes. Backfill should be placed in approximately 6 to 8 inch maximum loose lifts and then mechanically compacted with a hydro-hammer, rolling with a sheepsfoot, pneumatic tampers, or similar equipment. The utility trenches should be tested by the project geotechnical engineer or their representative to verify minimum compaction requirements are obtained.

In order to minimize the penetration of moisture below building slabs, all utility trenches should be backfilled with compacted fill, lean concrete or concrete slurry where they undercut the perimeter foundation. Utility trenches that are proposed parallel to any building footings (interior and/or exterior trenches), should not be located within a 1:1 (h:v) plane projected downward from the outside bottom edge of the footing.

SEISMIC DESIGN CONSIDERATIONS

Ground Motions

Structures are required to be designed and constructed to resist the effects of seismic ground motions as provided in the 2022 California Building Code Section 1613. The design is dependent on the site class, occupancy category I, II, III, or IV, mapped spectral accelerations for short periods (S_s), and mapped spectral acceleration for a 1-second period (S_1).

In order for structural design to comply with the 2022 CBC, the USGS "US Seismic Design Maps" online tool was used to compile spectral accelerations for the subject property based on data and maps jointly compiled by the United States Geological Survey (USGS) and the California Geological Survey (CGS). The data found in the following table is based on the Maximum Considered Earthquake (MCE) with 5% damped ground motions having a 2% probability of being exceeded in 50 years (2,475 year return period).

The seismic design coefficients were determined by a combination of the site class, mapped spectral accelerations, and occupancy category. The following seismic design coefficients should be implemented during design of the proposed structures. Summaries of the Seismic Hazard Deaggregation graphs and test data are presented in Appendix D.

2022 CBC	FACTOR (ASCE 7-16)
Site Location	Latitude: 33.821662° (North) Longitude: -117.224951°(West)
Site Class	D-Default
Mapped Spectral Accelerations for short periods, S_S	1.5
Mapped Spectral Accelerations for 1-Second Period, S_1	0.562
Maximum Considered Earthquake Spectral Response Acceleration for Short Periods, S_{MS}	1.8
Maximum Considered Earthquake Spectral Response Acceleration for 1-Second Period, S_{M1} (+50% increase)*	1.517*
Design Spectral Response Acceleration for Short Periods, S_{DS}	1.2
Design Spectral Response Acceleration for 1-Second Period, S_{D1}	1.011*
Seismic Design Category	D
Importance Factor Based on Occupancy Category	II

*See ASCE 7-16/Supplement 3

We performed the probabilistic seismic hazard assessment for the site in accordance with the 2022 CBC, Section 1803.5.11 and 1803.5.12. The probabilistic seismic hazard maps and data files were jointly prepared by the United States Geological Survey (USGS) and the California Geological Survey (CGS) and can be found at the CGS Probabilistic Seismic Hazards Mapping Ground Motion Page. Actual ground shaking intensities at the site may be substantially higher or lower based on complex variables such as the near source directivity effects, depth and consistency of earth materials, topography, geologic structure, direction of fault rupture, and seismic wave reflection, refraction, and attenuation rates. The mean peak ground acceleration was calculated to be 0.6g.

Secondary Seismic Hazards

Secondary effects of seismic shaking considered as potential hazards include several types of ground failure as well as induced flooding. Different types of ground failure, which could occur as a consequence of severe ground shaking at the site, include landslides, ground lurching, shallow ground rupture, and liquefaction/lateral spreading. The probability of occurrence of each type of ground failure depends on the severity of the earthquake, distance from faults, topography, the state of subsurface earth materials, groundwater conditions, and other factors. Based on our experience, subsurface exploration, and laboratory testing, all of the above secondary effects of seismic activity are considered unlikely.

Seismically induced flooding is normally a consequence of a tsunami (seismic sea wave), a seiche (i.e., a wave-like oscillation of surface water in an enclosed basin that may be initiated by a strong earthquake) or failure of a major reservoir or retention system up gradient of the site. Since the site is at an elevation of more than 1000 feet above mean sea level and is located more than 25 miles inland from the nearest coastline of the Pacific Ocean, the potential for seismically induced flooding due to a tsunami is considered nonexistent. Since no enclosed bodies of water lie adjacent to or up gradient of the site, the likelihood for induced flooding due to a dam failure or a seiche overcoming the dam's freeboard is considered nonexistent.

Liquefaction and Lateral Spreading

Liquefaction occurs as a result of a substantial loss of shear strength or shearing resistance in loose, saturated, cohesionless earth materials subjected to earthquake induced ground shaking. Potential impacts from liquefaction include loss of bearing capacity, liquefaction related settlement, lateral movements, and surface manifestation such as sand boils. Seismically induced settlement occurs when loose sandy soils become denser when subjected to shaking during an earthquake. The three factors determining whether a site is likely to be subject to liquefaction include seismic shaking, type and consistency of earth materials, and groundwater level. The proposed structures will be supported by compacted fill and competent alluvium, with groundwater at a depth of over 50 feet. As such, the potential for earthquake induced liquefaction and lateral spreading beneath the proposed structures is considered very low to remote due to the recommended compacted fill, relatively low groundwater level, and the dense nature of the deeper onsite earth materials.

TENTATIVE FOUNDATION DESIGN RECOMMENDATIONS

General

Provided grading is performed in accordance with the recommendations of this report, shallow foundations are considered feasible for support of the proposed structures. Tentative foundation recommendations are provided herein and graphic presentations of relevant recommendations may also be included on the enclosed map.

Allowable Bearing Values

An allowable bearing value of 2,500 pounds per square foot (psf) is recommended for design of 24-inch square pad footings and 12-inch-wide continuous footings founded at a minimum depth of 12 inches below the lowest adjacent final grade. This value may be increased by 20 percent for each additional 1-foot of width and/or depth to a maximum value of 3,000 psf. Recommended allowable bearing values include both dead and frequently applied live loads and may be increased by one third when designing for short duration wind or seismic forces.

Settlement

Based on the settlement characteristics of the earth materials that underlie the building sites and the anticipated loading, we estimate that the maximum total settlement of the footings will be less than approximately ¾ inch. Differential settlement is expected to be about ½ inch over a horizontal distance of approximately 20 feet, for an angular distortion ratio of 1:480. It is anticipated that the majority of the settlement will occur during construction or shortly after the initial application of loading.

The above settlement estimates are based on the assumption that the grading and construction are performed in accordance with the recommendations presented in this report and that the project geotechnical consultant will observe or test the earth material conditions in the footing excavations.

Lateral Resistance

Passive earth pressure of 250 psf per foot of depth to a maximum value of 2,500 psf may be used to establish lateral bearing resistance for footings. For areas covered with hardscape, passive earth pressure may be taken from the surface. For areas without hardscape, the first 3 feet of the soil profile must be neglected when calculating passive earth pressure. A coefficient of friction of 0.36 times the dead load forces may be used between concrete and the supporting earth materials to determine lateral sliding resistance. The above values may be increased by one-third when designing for short duration wind or seismic forces. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. In no case shall the lateral sliding resistance exceed one-half the dead load for clay, sandy clay, sandy silty clay, silty clay, and clayey silt.

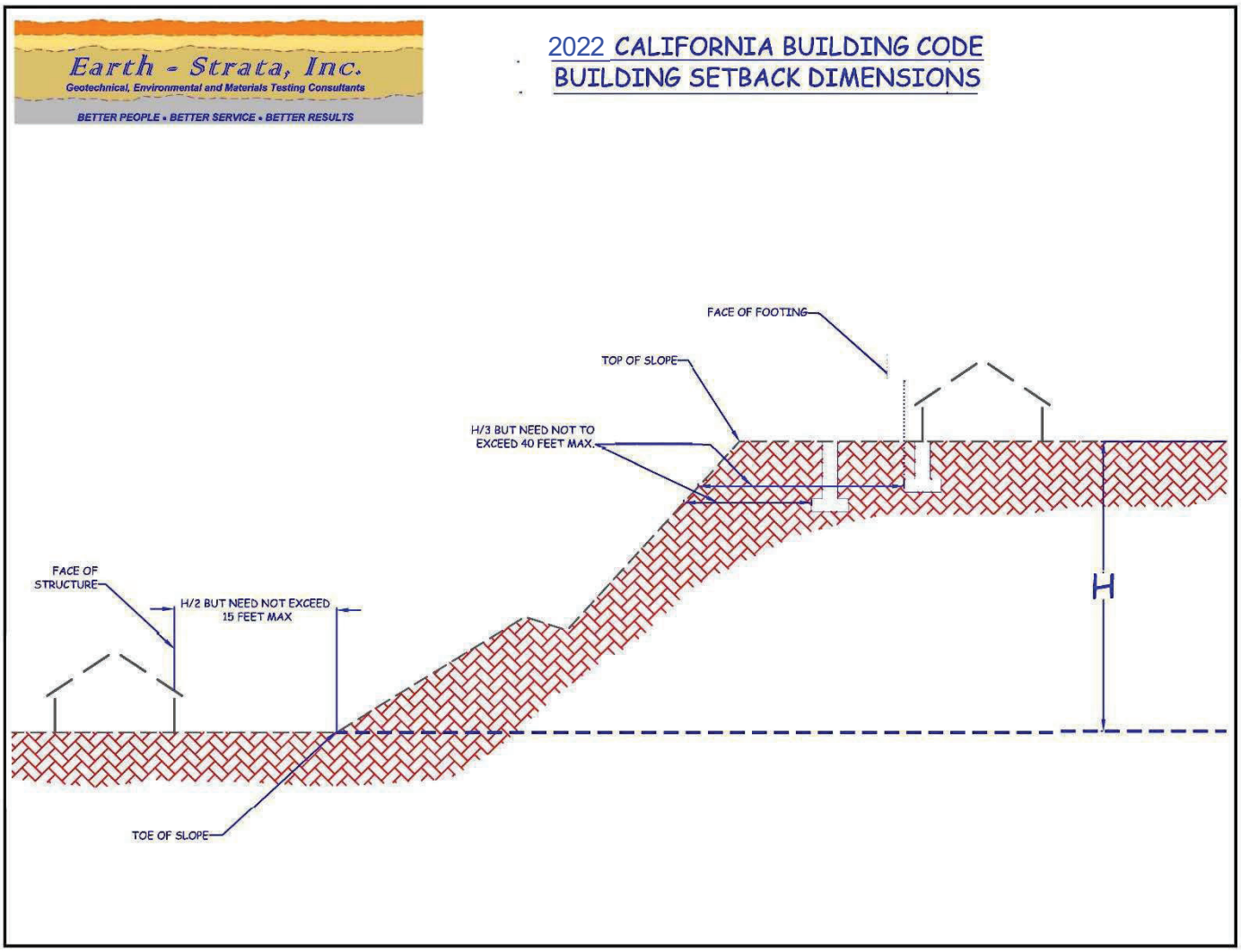
The above lateral resistance values are based on footings for an entire structure being placed directly against either compacted fill or competent bedrock.

Structural Setbacks and Building Clearance

Structural setbacks are required per the 2022 California Building Code (CBC). Additional structural setbacks are not required due to geologic or geotechnical conditions within the site. Improvements constructed in close proximity to natural or properly engineered and compacted slopes can, over time, be affected by natural processes including gravity forces, weathering, and long term secondary settlement. As a result, the CBC requires that buildings and structures be setback or footings deepened to resist the influence of these processes.

For structures that are planned near ascending and descending slopes, the footings should be embedded to satisfy the requirements presented in the CBC, Section 1808.7 as illustrated in the following Foundation Clearances from Slopes diagram.

FOUNDATION CLEARANCES FROM SLOPES



When determining the required clearance from ascending slopes with a retaining wall at the toe, the height of the slope shall be measured from the top of the wall to the top of the slope.

Foundation Observations

In accordance with the 2022 CBC and prior to the placement of forms, concrete, or steel, all foundation excavations should be observed by the geologist, engineer, or his representative to verify that they have

been excavated into competent bearing materials. The excavations should be per the approved plans, moistened, cleaned of all loose materials, trimmed neat, level, and square. Any moisture softened earth materials should be removed prior to steel or concrete placement.

Earth materials from foundation excavations should not be placed in slab on grade areas unless the materials are tested for expansion potential and compacted to a minimum of 90 percent of the maximum dry density.

Expansive Soil Considerations

Preliminary laboratory test results indicate onsite earth materials exhibit an expansion potential of **VERY LOW** as classified in accordance with 2022 CBC Section 1803.5.3 and ASTM D 4829. Additional, testing for expansive soil conditions should be conducted upon completion of rough grading. The following recommendations should be considered the very minimum requirements, for the earth materials tested. It is common practice for the project architect or structural engineer to require additional slab thickness, footing sizes, and/or reinforcement.

Very Low Expansion Potential (Expansion Index of 20 or Less)

Our laboratory test results indicate that the earth materials onsite exhibit a **VERY LOW** expansion potential as classified in accordance with 2022 CBC Section 1803.5.3 and ASTM D 4829. Since the onsite earth materials exhibit expansion indices of 20 or less, the design of slab on ground foundations is exempt from the procedures outlined in Section 1808.6.1 or 1808.6.2.

Footings

- Exterior continuous footings may be founded at the minimum depths below the lowest adjacent final grade (i.e. 12-inch minimum depth for one-story, 18-inch minimum depth for two-story, and 24-inch minimum depth for three-story construction). Interior continuous footings for one-, two-, and three-story construction may be founded at a minimum depth of 12 inches below the lowest adjacent final grade. All continuous footings should have a minimum width of 12, 15, and 18 inches, for one-, two-, and three-story structures, respectively per Table 1809.7 of the 2022 CBC, and should be reinforced with a minimum of four (4) No. 4 bars, two (2) top and two (2) bottom.

- Exterior pad footings intended to support roof overhangs, such as second story decks, patio covers and similar construction should be a minimum of 24 inches square and founded at a minimum depth of 18 inches below the lowest adjacent final grade. No special reinforcement of the pad footings will be required.

Building Floor Slabs

- Building floor slabs should be a minimum of 4 inches thick and reinforced with a minimum of No. 3 bars spaced a maximum of 24 inches on center, each way. All floor slab reinforcement should be supported on concrete chairs or bricks to ensure the desired placement at mid-depth.

- Interior floor slabs, within moisture sensitive areas, should be underlain by a minimum 10-mil thick moisture/vapor barrier to help reduce the upward migration of moisture from the underlying earth materials. The moisture/vapor barrier used should meet the performance standards of an ASTM E 1745 Class A material, and be properly installed in accordance with Cal Green Standard 4.505.2. It is the responsibility of the contractor to ensure that the moisture/vapor barriers are free of openings, rips, or punctures prior to placing concrete. As an option for additional moisture reduction, higher strength concrete, such as a minimum 28-day compressive strength of 5,000 pounds per square inch (psi) may be used. Ultimately, the design of the moisture/vapor barrier system and recommendations for concrete placement and curing are the purview of the foundation engineer, taking into consideration the project requirements provided by the architect and owner.

- Garage floor slabs should be a minimum of 4 inches thick and should be reinforced in a similar manner as living area floor slabs. Garage floor slabs should be placed separately from adjacent wall footings with a positive separation maintained with ⅜ inch minimum felt expansion joint materials and quartered with weakened plane joints. A 12-inch-wide turn down founded at the same depth as adjacent footings should be provided across garage entrances. The turn down should be reinforced with a minimum of four (4) No. 4 bars, two (2) top and two (2) bottom.

- The subgrade earth materials below all floor slabs should be pre-watered to promote uniform curing of the concrete and minimize the development of shrinkage cracks, prior to placing concrete. The pre-watering should be verified by Earth Strata Geotechnical Services during construction.

Corrosivity

Corrosion is defined by the National Association of Corrosion Engineers (NACE) as "a deterioration of a substance or its properties because of a reaction with its environment." From a geotechnical viewpoint, the "substances" are the reinforced concrete foundations or buried metallic elements (not surrounded by concrete) and the "environment" is the prevailing earth materials in contact with them. Many factors can contribute to corrosivity, including the presence of chlorides, sulfates, salts, organic materials, different oxygen levels, poor drainage, different soil types, and moisture content. It is not considered practical or realistic to test for all of the factors which may contribute to corrosivity.

The potential for concrete exposure to chlorides is based upon the recognized Caltrans reference standard "Bridge Design Specifications", under Subsection 8.22.1 of that document, Caltrans has determined that "Corrosive water or soil contains more than 500 parts per million (ppm) of chlorides". Based on limited preliminary laboratory testing, the onsite earth materials have chloride contents *less* than 500 ppm. As such, specific requirements resulting from elevated chloride contents are not required.

Specific guidelines for concrete mix design are provided in 2022 CBC Section 1904.1 and ACI 318-19, Section 4.3 Tables 19.3.1.1 and 19.3.2.1 when the soluble sulfate content of earth materials exceeds 0.1 percent by weight. Based on limited preliminary laboratory testing, the onsite earth materials are

classified in accordance with Tables 19.3.1.1 and 19.3.2.1 as having a *negligible* sulfate exposure condition. Therefore, structural concrete in contact with onsite earth materials should utilize Type I or II.

Based on our laboratory testing of resistivity, the onsite earth materials in contact with buried steel should be considered *moderately corrosive*. Additionally, pH values below 5.6 and above 9.1 are recognized as being corrosive to many common metallic components. The pH values for the earth materials tested were *lower* than 9.1 and *higher* than 5.6.

The preliminary test results for corrosivity are based on limited samples, and the initiation of grading may blend various earth materials together. This blending or imported material could alter and increase the detrimental properties of the onsite earth materials. Accordingly, additional testing for chlorides and sulfates along with testing for pH and resistivity should be performed upon completion of grading. Laboratory test results are presented in Appendix C.

RETAINING WALLS

Active and At-Rest Earth Pressures

Foundations may be designed in accordance with the recommendations provided in the Tentative Foundation Design Recommendation section of this report. The following table provides the minimum recommended equivalent fluid pressures for design of retaining walls a maximum of 6 feet high. The active earth pressure should be used for design of unrestrained retaining walls, which are free to tilt slightly. The at-rest earth pressure should be used for design of retaining walls that are restrained at the top, such as basement walls, curved walls with no joints, or walls restrained at corners. For curved walls, active pressure may be used if tilting is acceptable and construction joints are provided at each angle point and at a minimum of 15 foot intervals along the curved segments.

MINIMUM STATIC EQUIVALENT FLUID PRESSURES (pcf)		
PRESSURE TYPE	BACKSLOPE CONDITION	
	LEVEL	2:1 (h:v)
Active Earth Pressure	40	63
At-Rest Earth Pressure	60	95

The retaining wall parameters provided do not account for hydrostatic pressure behind the retaining walls. Therefore, the subdrain system is a very important part of the design. All retaining walls should be designed to resist surcharge loads imposed by other nearby walls, structures, or vehicles should be added to the above earth pressures, if the additional loads are being applied within a 1.5:1 (h:v) plane projected up from the heel of the retaining wall footing. As a way of minimizing surcharge loads and the settlement potential of nearby buildings, the footings for the building can be deepened below the 1.5:1 (h:v)plane projected up from the heel of the retaining wall footing.

Upon request and under a separate scope of work, more detailed analyses can be performed to address equivalent fluid pressures with regard to stepped retaining walls, actual retaining wall heights, actual

backfill inclinations, specific backfill materials, higher retaining walls requiring earthquake design motions, etc.

Subdrain System

We recommend a perforated pipe and gravel subdrain system be provided behind all proposed retaining walls to prevent the buildup of hydrostatic pressure behind the proposed retaining walls. The perforated pipe should consist of 4-inch minimum diameter Schedule 40 PVC or ABS SDR-35, placed with the perforations facing down. The pipe should be surrounded by 1 cubic foot per foot of ¾- or 1½ inch open graded gravel wrapped in filter fabric. The filter fabric should consist of Mirafi 140N or equivalent to prevent infiltration of fines and subsequent clogging of the subdrain system.

In lieu of a perforated pipe and gravel subdrain system, weep holes or open vertical masonry joints may be provided in the lowest row of block exposed to the air to prevent the buildup of hydrostatic pressure behind the proposed retaining walls. Weep holes should be a minimum of 3 inches in diameter and provided at intervals at least every 6 feet along the wall. Open vertical masonry joints should be provided at a minimum of 32 inch intervals. A continuous gravel fill, a minimum of 1 cubic foot per foot, should be placed behind the weep holes or open masonry joints. The gravel should be wrapped in filter fabric consisting of Mirafi 140N or equivalent.

The retaining walls should be adequately coated on the backfilled side of the walls with a proven waterproofing compound by an experienced professional to inhibit infiltration of moisture through the walls.

Temporary Excavations

All excavations should be made in accordance with Cal-OSHA requirements. Earth Strata Geotechnical Services is not responsible for job site safety.

Retaining Wall Backfill

Retaining wall backfill materials should be approved by the geotechnical engineer or his representative prior to placement as compacted fill. Retaining wall backfill should be placed in lifts no greater than 6 to 8 inches, watered or air dried as necessary to achieve near optimum moisture contents. All retaining wall backfill should be compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM D 1557. Retaining wall backfill should be capped with a paved surface drain.

CONCRETE FLATWORK

Thickness and Joint Spacing

Concrete sidewalks and patio type slabs should be at least 3½ inches thick and provided with construction or expansion joints every 6 feet or less, to reduce the potential for excessive cracking. Concrete driveway slabs should be at least 5 inches thick and provided with construction or expansion joints every 10 feet or less.

Subgrade Preparation

In order to reduce the potential for unsightly cracking, subgrade earth materials underlying concrete flatwork should be compacted at near optimum moisture to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557 and then moistened to optimum or slightly above optimum moisture content. This moisture should extend to a depth of 12 inches below subgrade and be maintained prior to placement of concrete. Pre-watering of the earth materials prior to placing concrete will promote uniform curing of the concrete and minimize the development of shrinkage cracks. The project geotechnical engineer or his representative should verify the density and moisture content of the earth materials and the depth of moisture penetration prior to placing concrete.

Cracking within concrete flatwork is often a result of factors such as the use of too high a water to cement ratio and/or inadequate steps taken to prevent moisture loss during the curing of the concrete. Concrete distress can be reduced by proper concrete mix design and proper placement and curing of the concrete. Minor cracking within concrete flatwork is normal and should be expected.

GRADING PLAN REVIEW AND CONSTRUCTION SERVICES

This report has been prepared for the exclusive use of **VENTURA ENGINEERING** and their authorized representative. It likely does not contain sufficient information for other parties or other uses. Earth Strata Geotechnical Services should be engaged to review the final design plans and specifications prior to construction. This is to verify that the recommendations contained in this report have been properly incorporated into the project plans and specifications. Should Earth Strata Geotechnical Services not be accorded the opportunity to review the project plans and specifications, we are not responsibility for misinterpretation of our recommendations.

We recommend that Earth Strata Geotechnical Services be retained to provide geologic and geotechnical engineering services during grading and foundation excavation phases of the work. In order to allow for design changes in the event that the subsurface conditions differ from those anticipated prior to construction.

Earth Strata Geotechnical Services should review any changes in the project and modify and approve in writing the conclusions and recommendations of this report. This report and the drawings contained within are intended for design input purposes only and are not intended to act as construction drawings or specifications. In the event that conditions encountered during grading or construction operations appear to be different than those indicated in this report, this office should be notified immediately, as revisions may be required.

REPORT LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists, practicing at the time and location this report was prepared. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Earth materials vary in type, strength, and other geotechnical properties between points of observation and exploration. Groundwater and moisture conditions can also vary due to natural processes or the works of man on this or adjacent properties. As a result, we do not and cannot have complete knowledge of the subsurface conditions beneath the subject property. No practical study can completely eliminate uncertainty with regard to the anticipated geotechnical conditions in connection with a subject property. The conclusions and recommendations within this report are based upon the findings at the points of observation and are subject to confirmation by Earth Strata Geotechnical Services based on the conditions revealed during grading and construction.

This report was prepared with the understanding that it is the responsibility of the owner or their representative, to ensure that the conclusions and recommendations contained herein are brought to the attention of the other project consultants and are incorporated into the plans and specifications. The owners' contractor should properly implement the conclusions and recommendations during grading and construction, and notify the owner if they consider any of the recommendations presented herein to be unsafe or unsuitable.

APPENDIX A

REFERENCES

APPENDIX A

References

California Building Standards Commission, 2022, *2022 California Building Code, California Code of Regulations Title 24, Part 2, Volume 2 of 2,* Based on 2018 International Building Code.

California Corrosion Guidelines

DeLorme, 2004, (www.delorme.com) *Topo USA*®.

Hart, Earl W. and Bryant, William A., *1997, Fault Rupture Hazard Zones in California, CDMG Special Publication 42,* revised 2003.

Irvine Geotechnical, 2001, Mult Calc 2000, October 10.

Jenkins, Olaf P., 1978, *Geologic Map of California, Santa Ana Sheet*; CDMG, Scale 1:250,000.

Kennedy, M.P., 2000, Nelson, B., and R. Hauser, *Geologic Map of the Pechanga 7.5 Minute Quadrangle, Riverside and San Diego Counties, California, Version 1.0*: U.S. Geological Survey, CDMG.

Kennedy, M.P., 1977, *Regency and Character of Faulting Along the Elsinore Fault Zone in Southern Riverside County, California*, California Division of Mines and Geology Special Report 131.

Morton, D.M., Hauser, Rachel M., and Ruppert, Kelly R., 2004, *Preliminary Digital Geologic Map of the Murrieta 7.5 Minute Quadrangle, Southern California, Version 1.0*: U.S. Geological Survey Open-File Report 99-0172.

Morton, D.M. (compiler), and Fred K. Miller (compiler), 2006, *Geologic Map of the San Bernardino and Santa Ana 30' x 60' Quadrangles, California*: U.S. Geological Survey, Version 1, California.

National Bureau of Standards, 1989, Underground corrosion Circular 579.

Per A.B. Chance® Recommendations, 2003

Southern California Earthquake Center (SCEC), 1999, *Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California,* March.

APPENDIX B

EXPLORATORY LOGS

Geotechnical Boring Log B-1

Date: May 22, 2024	**Project Name: Placentia**	**Page: 1 of 1**
Project Number: 245753-10A	**Logged By: DW**	
Drilling Company: Drilling It	**Type of Rig: B61**	
Drive Weight (lbs): 140	**Drop (in): 30**	**Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**	

Depth (ft)	Blow Count Per Foot	Sample Depth	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						
	32				SM	Silty SAND; yellowish brown
5	29					
	74					
10	81/11"					
						Total Depth: 11.5 feet
						No Groundwater
15						
20						
25						
30						

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Geotechnical, Environmental and Materials Testing Consultants
www.ESGSINC.com (951) 397-8315

Geotechnical Boring Log B-2

Date: May 22, 2024	**Project Name: Placentia**	**Page: 1 of 1**
Project Number: 245753-10A	**Logged By: DW**	
Drilling Company: Drilling It	**Type of Rig: B61**	
Drive Weight (lbs): 140	**Drop (in): 30**	**Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**	

Depth (ft)	Blow Count Per Foot	Sample Depth	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						
	23				SM	Silty SAND; yellowish brown
5	47					
	74					
10	77/11"					
						Total Depth: 11.5 feet
						No Groundwater
15						
20						
25						
30						

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Geotechnical, Environmental and Materials Testing Consultants
www.ESGSINC.com (951) 397-8315

Geotechnical Boring Log B-3

Date: May 22, 2024	**Project Name: Placentia**	**Page: 1 of 1**
Project Number: 245753-10A	**Logged By: DW**	
Drilling Company: Drilling It	**Type of Rig: B61**	
Drive Weight (lbs): 140	**Drop (in): 30**	**Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**	

Depth (ft)	Blow Count Per Foot	Sample Depth	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						
	46				SM	Silty SAND; yellowish brown
5	37					
	74					
10	77/11"					
						Total Depth: 11.5 feet
						No Groundwater
15						
20						
25						
30						

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Earth Strata Geotechnical Services, Inc.
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APPENDIX C

LABORATORY PROCEDURES AND TEST RESULTS

APPENDIX C

Laboratory Procedures and Test Results

Laboratory testing provided quantitative and qualitative data involving the relevant engineering properties of the representative earth materials selected for testing. The representative samples were tested in general accordance with American Society for Testing and Materials (ASTM) procedures and/or California Test Methods (CTM).

Soil Classification: Earth materials encountered during exploration were classified and logged in general accordance with the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) of ASTM D 2488. Upon completion of laboratory testing, exploratory logs and sample descriptions were reconciled to reflect laboratory test results with regard to ASTM D 2487.

Moisture and Density Tests: For select samples moisture content was determined using the guidelines of ASTM D 2216 and dry density determinations were made using the guidelines of ASTM D 2937. These tests were performed on relatively undisturbed samples and the test results are presented on the exploratory logs.

Maximum Density Tests: The maximum dry density and optimum moisture content of representative samples were determined using the guidelines of ASTM D 1557. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE CONTENT (%)
B-3 @ 0-5 feet	Silty SAND	135.5	7.5

Expansion Index: The expansion potential of representative samples was evaluated using the guidelines of ASTM D 4829. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	EXPANSION INDEX	EXPANSION POTENTIAL
B-3 @ 0-5 feet	Silty SAND	13	Very Low

Minimum Resistivity and pH Tests: Minimum resistivity and pH Tests of select samples were performed using the guidelines of CTM 643. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	pH	MINIMUM RESISTIVITY (ohm-cm)
B-3 @ 0-5 feet	Silty SAND	7.45	1198

Soluble Sulfate: The soluble sulfate content of select samples was determined using the guidelines of CTM 417. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	SULFATE CONTENT (% by weight)	SULFATE EXPOSURE
B-3 @ 0-5 feet	Silty SAND	0.006	Negligible

Chloride Content: Chloride content of select samples was determined using the guidelines of CTM 422. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	CHLORIDE CONTENT (ppm)
B-3 @ 0-5 feet	Silty SAND	100

APPENDIX D

SEISMICITY

U.S. Geological Survey - Earthquake Hazards Program

2008 National Seismic Hazard Maps – Source Parameters

New Search

Fault Name	State
San Jacinto;A+CC+B+SM	**California**

GEOMETRY	
Dip (degrees)	90
Dip direction	V
Sense of slip	strike slip
Rupture top (km)	0.1
Rupture bottom (km)	15
Rake (degrees)	180
Length (km)	178

MODEL VALUES		
Slip Rate	n/a	
Probability of activity	1	
	ELLSWORTH	HANKS
Minimum magnitude	6.5	6.5
Maximum magnitude	7.62	7.62
b-value	0.8	0.8

Fault Model	Deformation Model	Char Rate[1]	GR-a-value[1]	Weight
Moment Balanced	2.1	9.61e-05 / 9.61e-05	NA / NA	0.25
Moment Balanced	2.2	9.61e-05 / 9.61e-05	NA / NA	0.10
Moment Balanced	2.3	9.61e-05 / 9.61e-05	NA / NA	0.15

[1] 1st Value is based on Ellsworth relation and 2nd value is based on Hanks and Bakun relation

U.S. Geological Survey - Earthquake Hazards Program

2008 National Seismic Hazard Maps - Source Parameters

New Search

Distance in Kilometers	Name	State	Pref Slip Rate (mm/yr)	Dip (degrees)	Dip Dir	Slip Sense	Rupture Top (km)	Rupture Bottom (km)	Length (km)
13.17	San Jacinto;A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	178
13.17	San Jacinto;A	CA	9	90	V	strike slip	0	17	71
13.17	San Jacinto;A+C	CA	n/a	90	V	strike slip	0	17	118
13.17	San Jacinto;A+CC	CA	n/a	90	V	strike slip	0	16	118
13.17	San Jacinto;A+CC+B	CA	n/a	90	V	strike slip	0.1	15	152
15.20	San Jacinto;SBV+SJV+A	CA	n/a	90	V	strike slip	0	16	134
15.20	San Jacinto;SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	196
15.20	San Jacinto;SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	170
15.20	San Jacinto;SJV+A+CC	CA	n/a	90	V	strike slip	0	16	136
15.20	San Jacinto;SJV+A+C	CA	n/a	90	V	strike slip	0	17	136
15.20	San Jacinto;SJV+A	CA	n/a	90	V	strike slip	0	17	89
15.20	San Jacinto;SJV	CA	18	90	V	strike slip	0	16	43
15.20	San Jacinto;SBV+SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	241
15.20	San Jacinto;SBV+SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	215
15.20	San Jacinto;SBV+SJV+A+CC	CA	n/a	90	V	strike slip	0	16	181
15.20	San Jacinto;SBV+SJV+A+C	CA	n/a	90	V	strike slip	0	17	181

15.20	San Jacinto;SBV+SJV	CA	n/a	90	V	strike slip	0	16	88
20.31	Elsinore;GI	CA	5	90	V	strike slip	0	13	37
20.31	Elsinore;W+GI	CA	n/a	81	NE	strike slip	0	14	83
20.45	Elsinore;GI+T+J+CM	CA	n/a	86	NE	strike slip	0	16	195
20.45	Elsinore;W+GI+T	CA	n/a	84	NE	strike slip	0	14	124
20.45	Elsinore;W+GI+T+J	CA	n/a	84	NE	strike slip	0	16	199
20.45	Elsinore;W+GI+T+J+CM	CA	n/a	84	NE	strike slip	0	16	241
20.45	Elsinore;GI+T	CA	5	90	V	strike slip	0	14	78
20.45	Elsinore;GI+T+J	CA	n/a	86	NE	strike slip	0	17	153
21.71	San Jacinto;SBV	CA	6	90	V	strike slip	0	16	45
22.49	Elsinore;T+J+CM	CA	n/a	85	NE	strike slip	0	16	169
22.49	Elsinore;T+J	CA	n/a	86	NE	strike slip	0	17	127
22.49	Elsinore;T	CA	5	90	V	strike slip	0	14	52
31.62	Chino, alt 2	CA	1	65	SW	strike slip	0	14	29
33.37	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	384
33.37	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	512
33.37	S. San Andreas;SSB+BG	CA	n/a	71		strike slip	0	13	101
33.37	S. San Andreas;NSB+SSB+BG+CO	CA	n/a	79		strike slip	0.2	12	206
33.37	S. San Andreas;CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	322
33.37	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	85		strike slip	0	14	380

33.37	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	449
33.37	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0	14	442
33.37	S. San Andreas;NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	213
33.37	S. San Andreas;NM+SM+NSB+SSB+BG	CA	n/a	83		strike slip	0	14	271
33.37	S. San Andreas;NM+SM+NSB+SSB+BG+CO	CA	n/a	84		strike slip	0.1	13	340
33.37	S. San Andreas;NSB+SSB	CA	n/a	90	V	strike slip	0	13	79
33.37	S. San Andreas;NSB+SSB+BG	CA	n/a	75		strike slip	0	14	136
33.37	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0.1	13	421
33.37	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0.1	13	479
33.37	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	548
33.37	S. San Andreas;SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	176
33.37	S. San Andreas;SM+NSB+SSB+BG	CA	n/a	81		strike slip	0	13	234
33.37	S. San Andreas;SM+NSB+SSB+BG+CO	CA	n/a	83		strike slip	0.1	13	303
33.37	S. San Andreas;SSB	CA	16	90	V	strike slip	0	13	43
33.37	S. San Andreas;SSB+BG+CO	CA	n/a	77		strike slip	0.2	12	170
33.37	S. San Andreas;BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	263
33.37	S. San Andreas;BB+NM+SM+NSB+SSB+BG	CA	n/a	84		strike slip	0	14	321
33.37	S. San Andreas;BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	85		strike slip	0.1	13	390
33.89	Elsinore;W	CA	2.5	75	NE	strike slip	0	14	46
34.68	Chino, alt 1	CA	1	50	SW	strike slip	0	9	24

36.43	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0.1	13	377
36.43	S. San Andreas;SM+NSB	CA	n/a	90	V	strike slip	0	13	133
36.43	S. San Andreas;NSB	CA	22	90	V	strike slip	0	13	35
36.43	S. San Andreas;CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	279
36.43	S. San Andreas;NM+SM+NSB	CA	n/a	90	V	strike slip	0	13	170
36.43	S. San Andreas;CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	341
36.43	S. San Andreas;BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	220
41.74	S. San Andreas;BG	CA	n/a	58		strike slip	0	13	56
41.74	S. San Andreas;BG+CO	CA	n/a	72		strike slip	0.3	12	125
44.44	Cucamonga	CA	5	45	N	thrust	0	8	28
48.58	San Joaquin Hills	CA	0.5	23	SW	thrust	2	13	27
50.32	Cleghorn	CA	3	90	V	strike slip	0	16	25
53.27	Pinto Mtn	CA	2.5	90	V	strike slip	0	16	74
53.91	San Jose	CA	0.5	74	NW	strike slip	0	15	20
55.11	North Frontal (West)	CA	1	49	S	reverse	0	16	50
56.96	Elsinore;J	CA	3	84	NE	strike slip	0	19	75
56.96	Elsinore;J+CM	CA	3	84	NE	strike slip	0	17	118
58.24	Sierra Madre Connected	CA	2	51		reverse	0	14	76
58.24	Sierra Madre	CA	2	53	N	reverse	0	14	57
60.12	Puente Hills (Coyote Hills)	CA	0.7	26	N	thrust	2.8	15	17
62.53	S. San Andreas;BB+NM+SM	CA	n/a	90	V	strike slip	0	14	184
62.53	S. San Andreas;SM	CA	29	90	V	strike slip	0	13	98

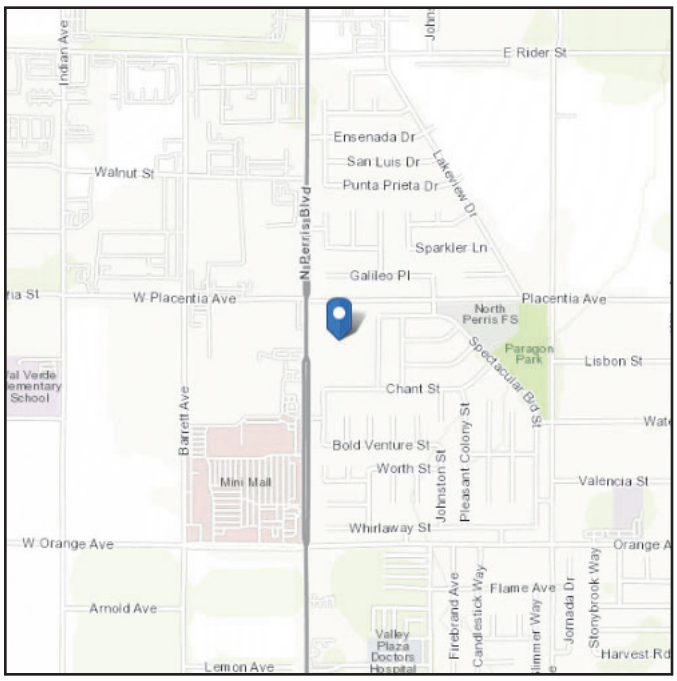
62.53	S. San Andreas;CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	306
62.53	S. San Andreas;PK+CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0.1	13	342
62.53	S. San Andreas;NM+SM	CA	n/a	90	V	strike slip	0	14	134
62.53	S. San Andreas;CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	243
63.02	Newport Inglewood Connected alt 2	CA	1.3	90	V	strike slip	0	11	208
63.02	Newport Inglewood Connected alt 1	CA	1.3	89		strike slip	0	11	208
63.02	Newport-Inglewood (Offshore)	CA	1.5	90	V	strike slip	0	10	66
67.39	Helendale-So Lockhart	CA	0.6	90	V	strike slip	0	13	114
69.28	North Frontal (East)	CA	0.5	41	S	thrust	0	16	27
69.76	Newport-Inglewood, alt 1	CA	1	88		strike slip	0	15	65
73.84	Clamshell-Sawpit	CA	0.5	50	NW	reverse	0	14	16
74.31	San Jacinto;CC+B+SM	CA	n/a	90	V	strike slip	0.2	14	103
74.31	San Jacinto;CC+B	CA	n/a	90	V	strike slip	0.2	14	77
74.31	San Jacinto;CC	CA	4	90	V	strike slip	0	16	43
74.43	Puente Hills (Santa Fe Springs)	CA	0.7	29	N	thrust	2.8	15	11
75.51	San Jacinto;C	CA	14	90	V	strike slip	0	17	47
78.14	Burnt Mtn	CA	0.6	67	W	strike slip	0	16	21
79.43	Lenwood-Lockhart-Old Woman Springs	CA	0.9	90	V	strike slip	0	13	145
79.71	Rose Canyon	CA	1.5	90	V	strike slip	0	8	70
80.26	Raymond	CA	1.5	79	N	strike slip	0	16	22
83.04	Eureka Peak	CA	0.6	90	V	strike slip	0	15	19

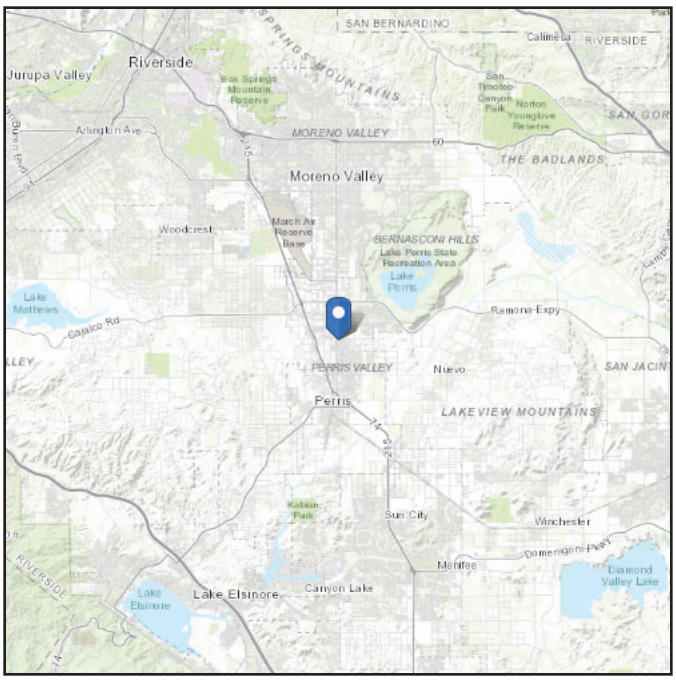
83.57	Landers	CA	0.6	90	V	strike slip	0	15	95
85.01	Puente Hills (LA)	CA	0.7	27	N	thrust	2.1	15	22
85.46	Elysian Park (Upper)	CA	1.3	50	NE	reverse	3	15	20
87.01	Palos Verdes	CA	3	90	V	strike slip	0	14	99
87.01	Palos Verdes Connected	CA	3	90	V	strike slip	0	10	285
88.04	Coronado Bank	CA	3	90	V	strike slip	0	9	186
89.29	Johnson Valley (No)	CA	0.6	90	V	strike slip	0	16	35
90.62	S. San Andreas;CO	CA	20	90	V	strike slip	0.6	11	69
92.50	Verdugo	CA	0.5	55	NE	reverse	0	15	29
92.59	Earthquake Valley	CA	2	90	V	strike slip	0	19	20
98.66	Hollywood	CA	1	70	N	strike slip	0	17	17
99.16	So Emerson-Copper Mtn	CA	0.6	90	V	strike slip	0	14	54

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	33.821662
Risk Category:	II	**Longitude:**	-117.224951
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	1447.8599831425415 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	1.5	S_{D1} :	N/A
S_1 :	0.562	T_L :	8
F_a :	1.2	PGA :	0.5
F_v :	N/A	PGA_M :	0.6
S_{MS} :	1.8	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.2	C_v :	1.4

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Fri May 31 2024

Date Source: USGS Seismic Design Maps

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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8 earthquakes.

Only List Earthquakes Shown on Map

Format: Magnitude

Sort: Newest First

6.3	The 1992 Big Bear, California…	
	1992-06-28 15:05:30 (UTC)	3.6 km
7.3	The 1992 Landers, California…	
	1992-06-28 11:57:34 (UTC)	-0.1 km
6.1	The 1992 Joshua Tree, Califo…	
	1992-04-23 04:50:23 (UTC)	11.6 km
6.0	The 1986 North Palm Spring…	
	1986-07-08 09:20:44 (UTC)	9.5 km
6.0	The 1948 Desert Hot Springs…	
	1948-12-04 23:43:16 (UTC)	6.0 km
6.4	The 1933 Long Beach, Califo…	
	1933-03-11 01:54:09 (UTC)	6.0 km
6.2	3 km SE of San Bernardino, C…	
	1923-07-23 07:30:23 (UTC)	5.0 km
6.7	The 1918 San Jacinto, Califo…	
	1918-04-21 22:32:30 (UTC)	10.0 km

DOWNLOAD

Didn't find what you were looking for?

- Check your Settings.
- Which earthquakes are included on the map and list?

APPENDIX E

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

EARTH-STRATA

General Earthwork and Grading Specifications

General

Intent: These General Earthwork and Grading Specifications are intended to be the minimum requirements for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These General Earthwork and Grading Specifications should be considered a part of the recommendations contained in the geotechnical report(s) and if they are in conflict with the geotechnical report(s), the specific recommendations in the geotechnical report shall supersede these more general specifications. Observations made during earthwork operations by the project Geotechnical Consultant may result in new or revised recommendations that may supersede these specifications and/or the recommendations in the geotechnical report(s).

The Geotechnical Consultant of Record: The Owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant), prior to commencement of grading or construction. The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading or construction.

Prior to commencement of grading or construction, the Owner shall coordinate with the Geotechnical Consultant, and Earthwork Contractor (Contractor) to schedule sufficient personnel for the appropriate level of observation, mapping, and compaction testing.

During earthwork and grading operations, the Geotechnical Consultant shall observe, map, and document the subsurface conditions to confirm assumptions made during the geotechnical design phase of the project. Should the observed conditions differ significantly from the interpretive assumptions made during the design phase, the Geotechnical Consultant shall recommend appropriate changes to accommodate the observed conditions, and notify the reviewing agency where required.

The Geotechnical Consultant shall observe the moisture conditioning and processing of the excavations and fill materials. The Geotechnical Consultant should perform periodic relative density testing of fill materials to verify that the attained level of compaction is being accomplished as specified.

The Earthwork Contractor: The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of earth materials to receive compacted fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall be provided with the approved grading plans and geotechnical report(s) for his review and acceptance of responsibilities, prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the approved grading plans and geotechnical report(s). Prior to commencement of grading, the Contractor shall prepare and submit to the Owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "equipment" of work and the estimated quantities of daily earthwork contemplated for the site. The Contractor shall inform the Owner and the Geotechnical Consultant of work schedule changes and revisions to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. No assumptions shall be made by the Contractor with regard to whether the Geotechnical Consultant is aware of all grading operations.

It is the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the earthwork operations in accordance with the applicable grading codes and agency ordinances, these specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). At the sole discretion of the Geotechnical Consultant, any unsatisfactory conditions, such as unsuitable earth materials, improper moisture conditioning, inadequate compaction, insufficient buttress keyway size, adverse weather conditions, etc., resulting in a quality of work less than required in the approved grading plans and geotechnical report(s), the Geotechnical Consultant shall reject the work and may recommend to the Owner that grading be stopped until conditions are corrected.

Preparation of Areas for Compacted Fill

Clearing and Grubbing: Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed in a method acceptable to the Owner, Geotechnical Consultant, and governing agencies.

The Geotechnical Consultant shall evaluate the extent of these removals on a site by site basis. Earth materials to be placed as compacted fill shall not contain more than 1 percent organic materials (by volume). No compacted fill lift shall contain more than 10 percent organic matter.

Should potentially hazardous materials be encountered, the Contractor shall stop work in the affected area, and a hazardous materials specialist shall immediately be consulted to evaluate the potentially hazardous materials, prior to continuing to work in that area.

It is our understanding that the State of California defines most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) as hazardous waste. As such, indiscriminate dumping or spillage of these fluids may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall be prohibited. The contractor is responsible for all hazardous waste related to his operations. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Owner should contract the services of a qualified environmental assessor.

Processing: Exposed earth materials that have been observed to be satisfactory for support of compacted fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Exposed earth materials that are not observed to be satisfactory shall be removed or alternative recommendations may be provided by the Geotechnical Consultant. Scarification shall continue until the exposed earth materials are broken down and free of oversize material and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction. The earth materials should be moistened or air dried to near optimum moisture content, prior to compaction.

Overexcavation: The Cut Lot Typical Detail and Cut/Fill Transition Lot Typical Detail, included herein provides a graphic illustration that depicts typical overexcavation recommendations made in the approved geotechnical report(s) and/or grading plan(s).

Keyways and Benching: Where fills are to be placed on slopes steeper than 5:1 (horizontal to vertical units), the ground shall be thoroughly benched as compacted fill is placed. Please see the three Keyway and Benching Typical Details with subtitles Cut Over Fill Slope, Fill Over Cut Slope, and Fill Slope for a graphic illustration. The lowest bench or smallest keyway shall be a minimum of 15 feet wide (or ½ the proposed slope height) and at least 2 feet into competent earth materials as advised by the Geotechnical Consultant. Typical benches shall be excavated a minimum height of 4 feet into competent earth materials or as recommended by the Geotechnical Consultant. Fill placed on slopes steeper than 5:1 should be thoroughly benched or otherwise excavated to provide a flat subgrade for the compacted fill.

Evaluation/Acceptance of Bottom Excavations: All areas to receive compacted fill (bottom excavations), including removal excavations, processed areas, keyways, and benching, shall be observed, mapped, general elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive compacted fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to placing compacted fill. A licensed surveyor shall provide the survey control for determining elevations of bottom excavations, processed areas, keyways, and

benching. The Geotechnical Consultant is not responsible for erroneously located, fills, subdrain systems, or excavations.

Fill Materials

General: Earth material to be used as compacted fill should to a large extent be free of organic matter and other deleterious substances as evaluated and accepted by the Geotechnical Consultant.

Oversize: Oversize material is rock that does not break down into smaller pieces and has a maximum diameter greater than 8 inches. Oversize rock shall not be included within compacted fill unless specific methods and guidelines acceptable to the Geotechnical Consultant are followed. For examples of methods and guidelines of oversize rock placement see the enclosed Oversize Rock Disposal Detail. The inclusion of oversize materials in the compacted fill shall only be acceptable if the oversize material is completely surrounded by compacted fill or thoroughly jetted granular materials. No oversize material shall be placed within 10 vertical feet of finish grade or within 2 feet of proposed utilities or underground improvements.

Import: Should imported earth materials be required, the proposed import materials shall meet the requirements of the Geotechnical Consultant. Well graded, very low expansion potential earth materials free of organic matter and other deleterious substances are usually sought after as import materials. However, it is generally in the Owners best interest that potential import earth materials are provided to the Geotechnical Consultant to determine their suitability for the intended purpose. At least 48 hours should be allotted for the appropriate laboratory testing to be performed, prior to starting the import operations.

Fill Placement and Compaction Procedures

Fill Layers: Fill materials shall be placed in areas prepared to receive fill in nearly horizontal layers not exceeding 8 inches in loose thickness. Thicker layers may be accepted by the Geotechnical Consultant, provided field density testing indicates that the grading procedures can adequately compact the thicker layers. Each layer of fill shall be spread evenly and thoroughly mixed to obtain uniformity within the earth materials and consistent moisture throughout the fill.

Moisture Conditioning of Fill: Earth materials to be placed as compacted fill shall be watered, dried, blended, and/or mixed, as needed to obtain relatively uniform moisture contents that are at or slightly above optimum. The maximum density and optimum moisture content tests should be performed in accordance with the American Society of Testing and Materials (ASTM test method D1557-00).

Compaction of Fill: After each layer has been moisture-conditioned, mixed, and evenly spread, it should be uniformly compacted to a minimum of 90 percent of maximum dry density as determined by ASTM test method D1557-00. Compaction equipment shall be adequately sized and be either specifically designed for compaction of earth materials or be proven to consistently achieve the required level of compaction.

Compaction of Fill Slopes: In addition to normal compaction procedures specified above, additional effort to obtain compaction on slopes is needed. This may be accomplished by backrolling of slopes with sheepsfoot rollers as the fill is being placed, by overbuilding the fill slopes, or by other methods producing results that are satisfactory to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill and the slope face shall be a minimum of 90 percent of maximum density per ASTM test method D1557-00.

Compaction Testing of Fill: Field tests for moisture content and relative density of the compacted fill earth materials shall be periodically performed by the Geotechnical Consultant. The location and frequency of tests shall be at the Geotechnical Consultant's discretion based on field observations. Compaction test locations will not necessarily be random. The test locations may or may not be selected to verify minimum compaction requirements in areas that are typically prone to inadequate compaction, such as close to slope faces and near benching.

Frequency of Compaction Testing: Compaction tests shall be taken at minimum intervals of every 2 vertical feet and/or per 1,000 cubic yards of compacted materials placed. Additionally, as a guideline, at least one (1) test shall be taken on slope faces for each 5,000 square feet of slope face and/or for each 10 vertical feet of slope. The Contractor shall assure that fill placement is such that the testing schedule described herein can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork operations to a safe level so that these minimum standards can be obtained.

Compaction Test Locations: The approximate elevation and horizontal coordinates of each test location shall be documented by the Geotechnical Consultant. The Contractor shall coordinate with the Surveyor to assure that sufficient grade stakes are established. This will provide the Geotechnical Consultant with sufficient accuracy to determine the approximate test locations and elevations. The Geotechnical Consultant can not be responsible for staking erroneously located by the Surveyor or Contractor. A minimum of two grade stakes should be provided at a maximum horizontal distance of 100 feet and vertical difference of less than 5 feet.

Subdrain System Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the approved grading plan, and the typical details provided herein. The Geotechnical Consultant may recommend additional subdrain systems and/or changes to the subdrain systems described herein, with regard to the extent, location, grade, or material depending on conditions encountered during grading or other factors. All subdrain systems shall be surveyed by a licensed land surveyor (except for retaining wall subdrain systems) to verify line and grade after installation and prior to burial. Adequate time should be allowed by the Contractor to complete these surveys.

Excavation

All excavations and over-excavations for remedial purposes shall be evaluated by the Geotechnical Consultant during grading operations. Remedial removal depths indicated on the geotechnical plans are estimates only. The actual removal depths and extent shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading operations. Where fill over cut slopes are planned, the cut portion of the slope shall be excavated, evaluated, and accepted by the Geotechnical Consultant prior to placement of the fill portion of the proposed slope, unless specifically addressed by the Geotechnical Consultant. Typical details for cut over fill slopes and fill over cut slopes are provided herein.

Trench Backfill

1) The Contractor shall follow all OHSA and Cal/OSHA requirements for trench excavation safety.

2) Bedding and backfill of utility trenches shall be done in accordance with the applicable provisions in the Standard Specifications of Public Works Construction. Bedding materials shall have a Sand Equivalency more than 30 (SE>30). The bedding shall be placed to 1 foot over the conduit and thoroughly jetting to provide densification. Backfill should be compacted to a minimum of 90 percent of maximum dry density, from 1 foot above the top of the conduit to the surface.

3) Jetting of the bedding materials around the conduits shall be observed by the Geotechnical Consultant.

4) The Geotechnical Consultant shall test trench backfill for the minimum compaction requirements recommended herein. At least one test should be conducted for every 300 linear feet of trench and for each 2 vertical feet of backfill.

5) For trench backfill the lift thicknesses shall not exceed those allowed in the Standard Specifications of Public Works Construction, unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment or method.

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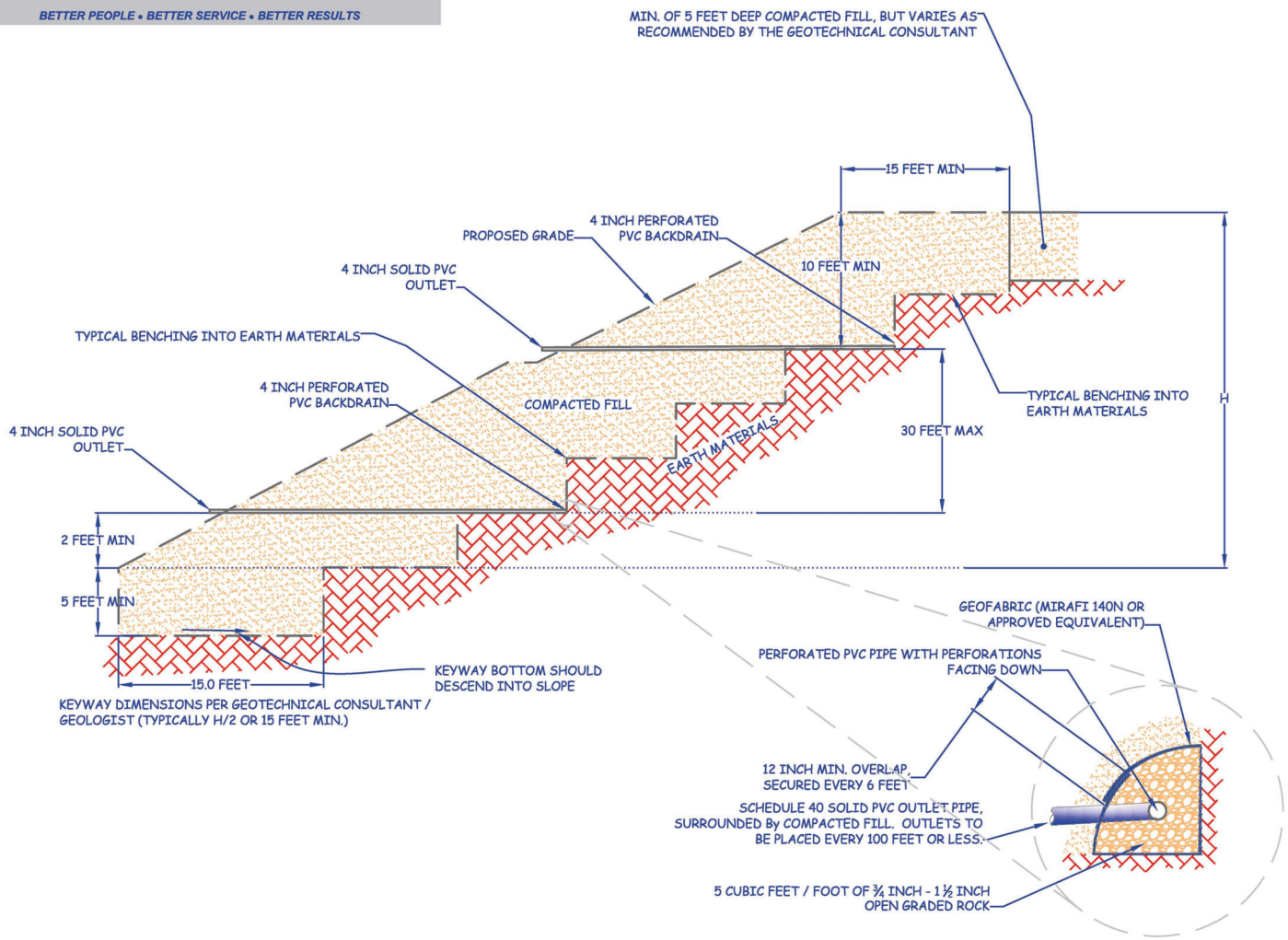
STABILIZATION FILL TYPICAL DETAIL



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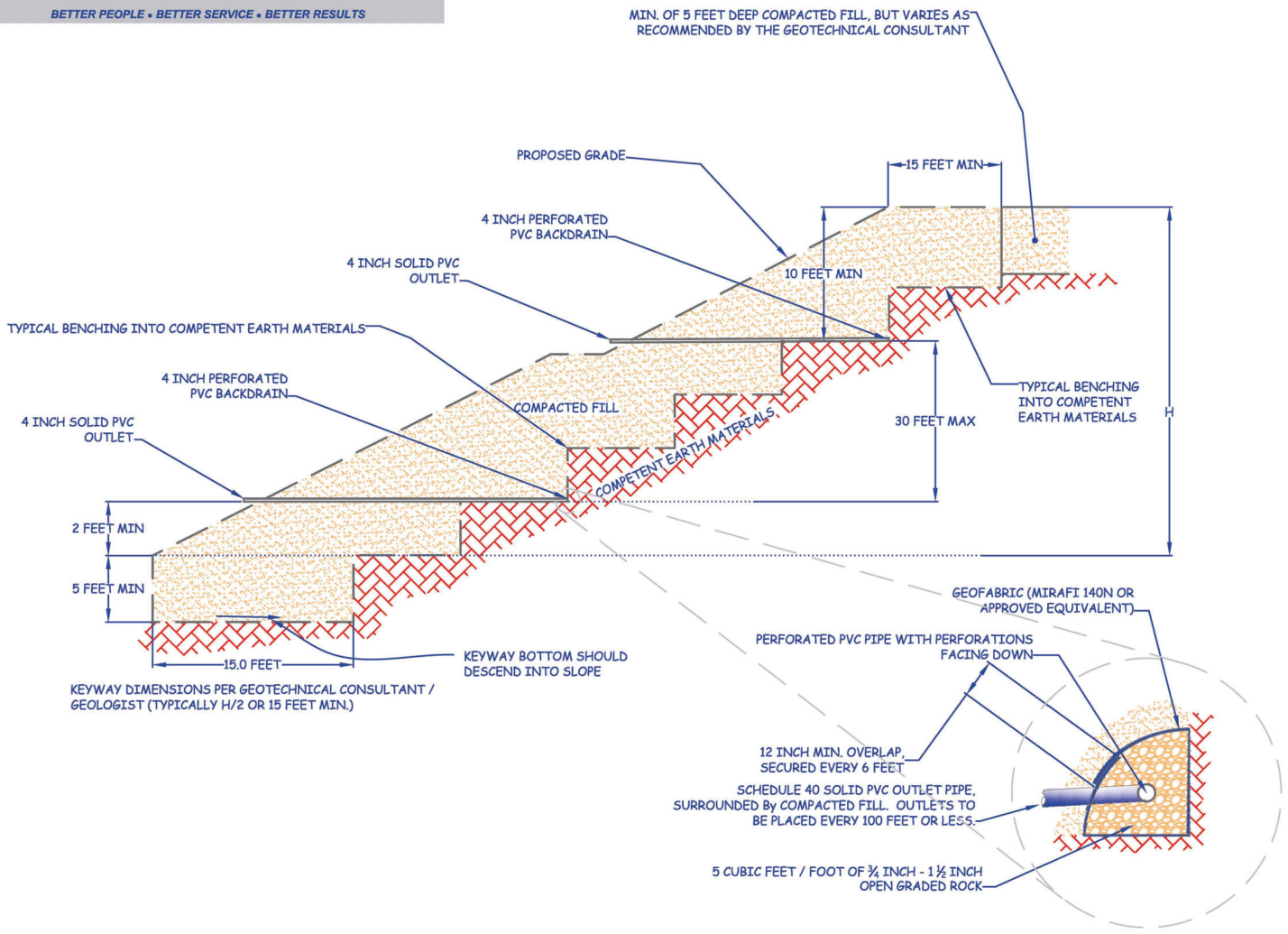
BUTTRESS TYPICAL DETAIL



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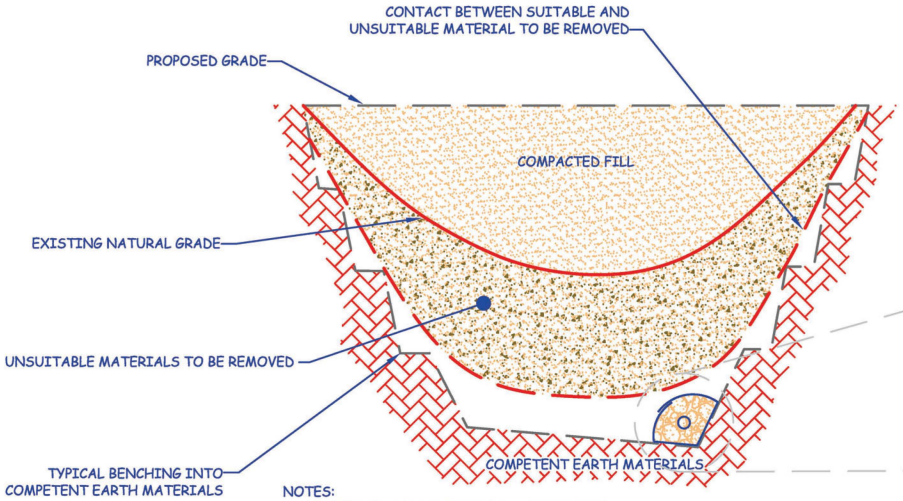
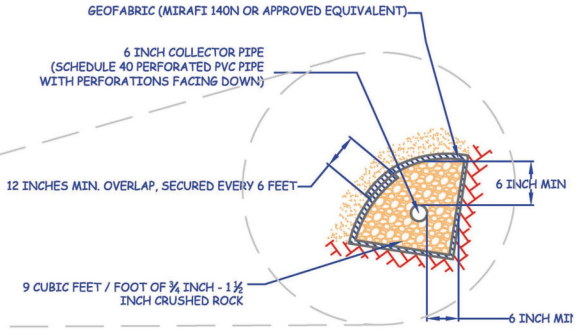
CANYON SUBDRAIN SYSTEM TYPICAL DETAIL

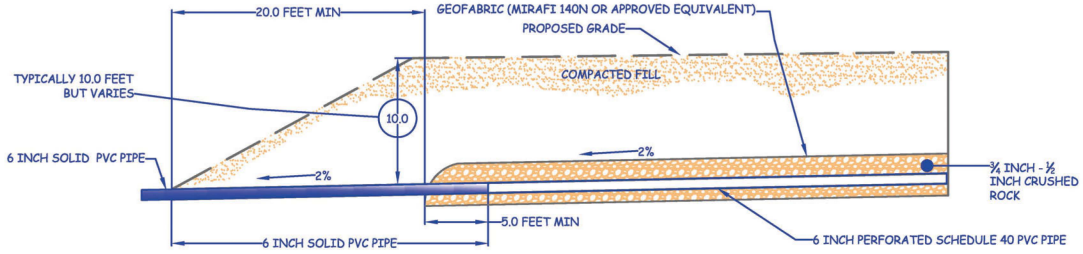




NOTES:
1 - CONTINUOUS RUNS IN EXCESS OF 500 FEET LONG WILL REQUIRE AN 8 INCH DIAMETER PIPE.

2 - FINAL 20 FEET OF PIPE AT OUTLET WILL BE SOLID AND BACKFILLED WITH COMPACTED FINE-GRAINED EARTH MATERIALS.

CANYON SUBDRAIN TYPICAL OUTLET



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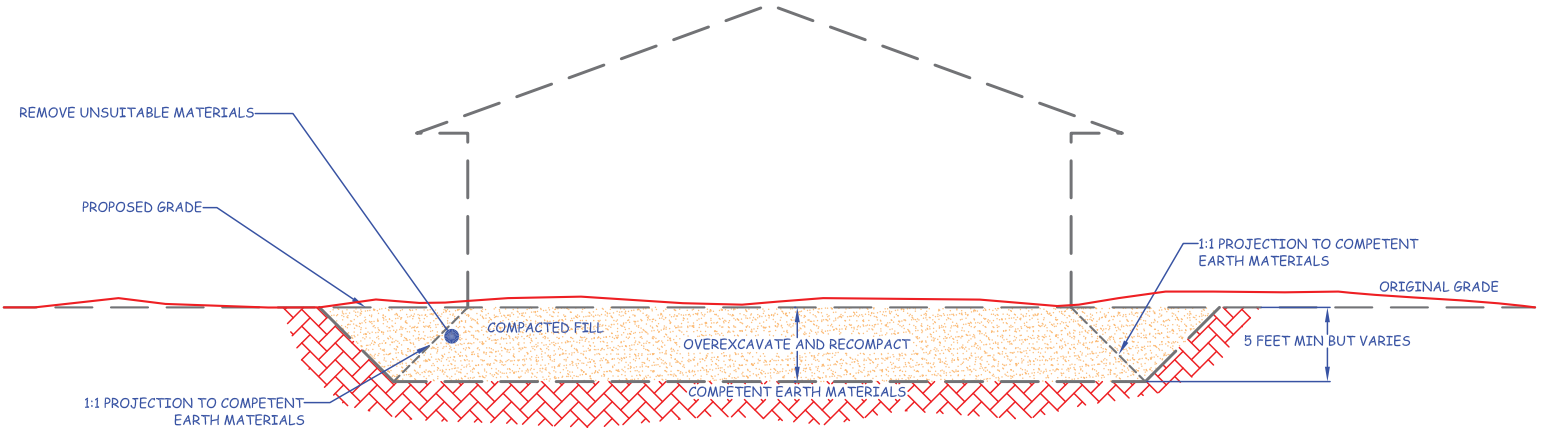
CUT LOT TYPICAL DETAIL



NOTE: REMOVAL BOTTOMS SHOULD BE GRADED WITH A MINIMUM 2% FALL TOWARDS STREET OR OTHER SUITABLE AREA (AS DETERMINED BY THE GEOTECHNICAL CONSULTANT) TO AVOID PONDING BELOW THE BUILDING

NOTE: WHERE DESIGN CUT LOTS ARE EXCAVATED ENTIRELY INTO COMPETENT EARTH MATERIALS, OVEREXCAVATION MAY STILL BY NEEDED FOR HARD-ROCK CONDITIONS OR MATERIALS WITH VARIABLE EXPANSION POTENTIALS

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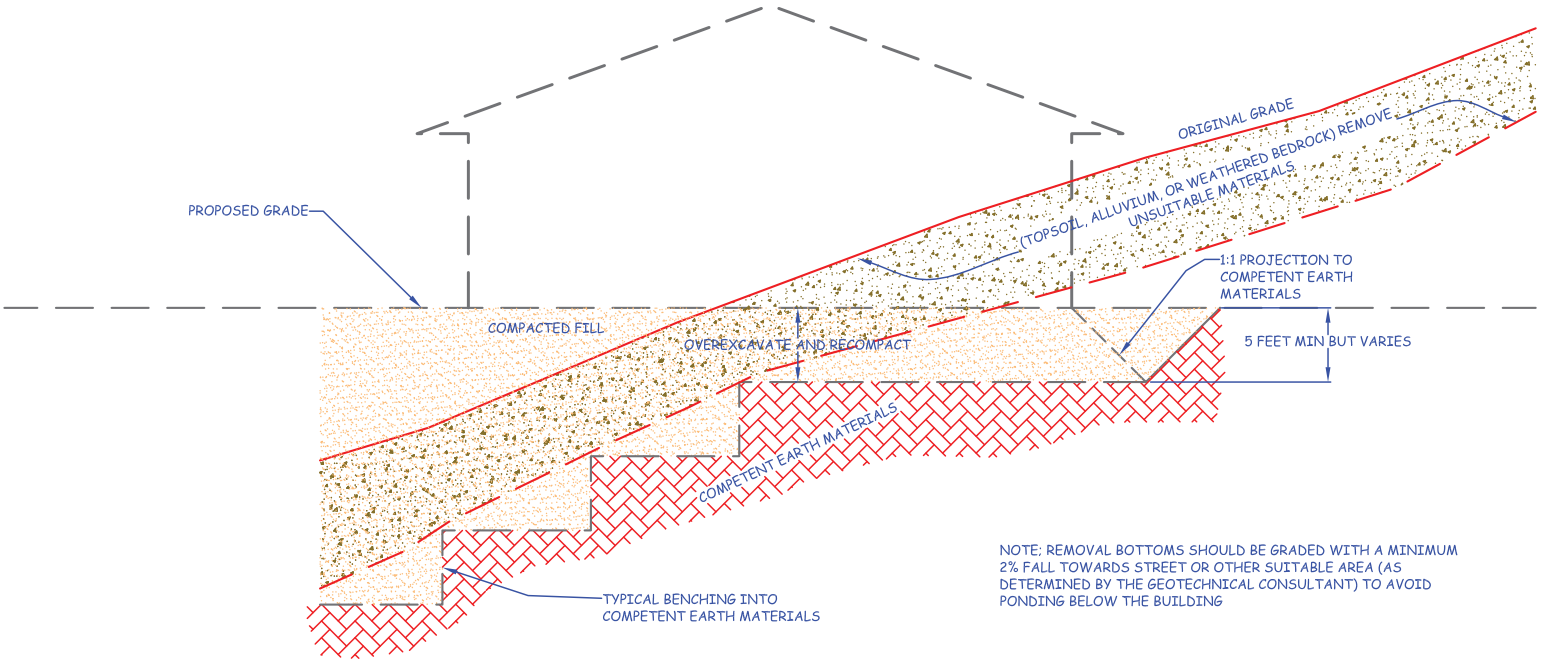
CUT / FILL TRANSITION LOT TYPICAL DETAIL



NOTE; REMOVAL BOTTOMS SHOULD BE GRADED WITH A MINIMUM 2% FALL TOWARDS STREET OR OTHER SUITABLE AREA (AS DETERMINED BY THE GEOTECHNICAL CONSULTANT) TO AVOID PONDING BELOW THE BUILDING

NOTE: WHERE DESIGN CUT LOTS ARE EXCAVATED ENTIRELY INTO COMPETENT EARTH MATERIALS, OVEREXCAVATION MAY STILL BY NEEDED FOR HARD-ROCK CONDITIONS OR MATERIALS WITH VARIABLE EXPANSION POTENTIALS

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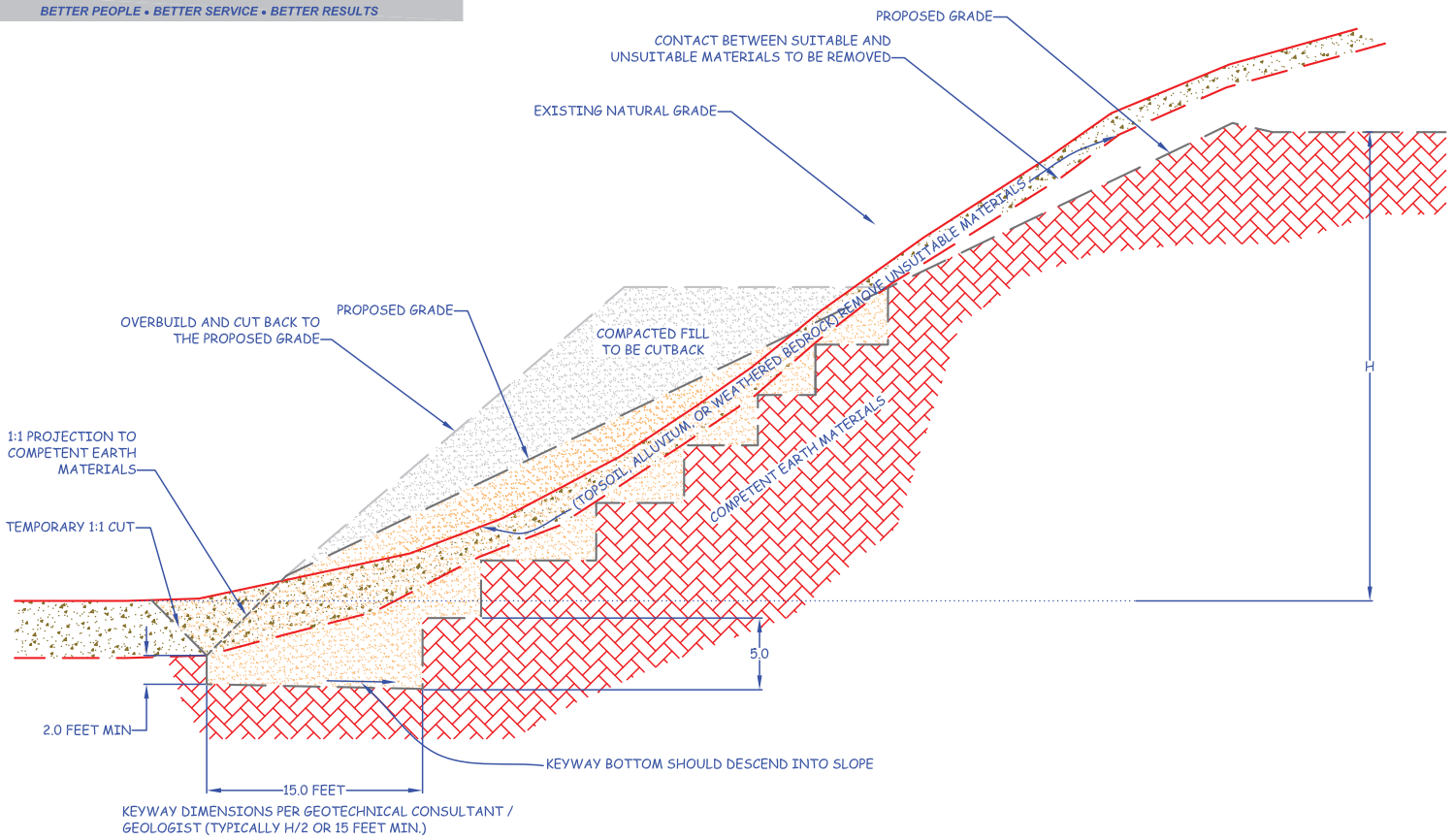
KEYWAY & BENCHING TYPICAL DETAILS
CUT OVER FILL SLOPE



NOTE:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

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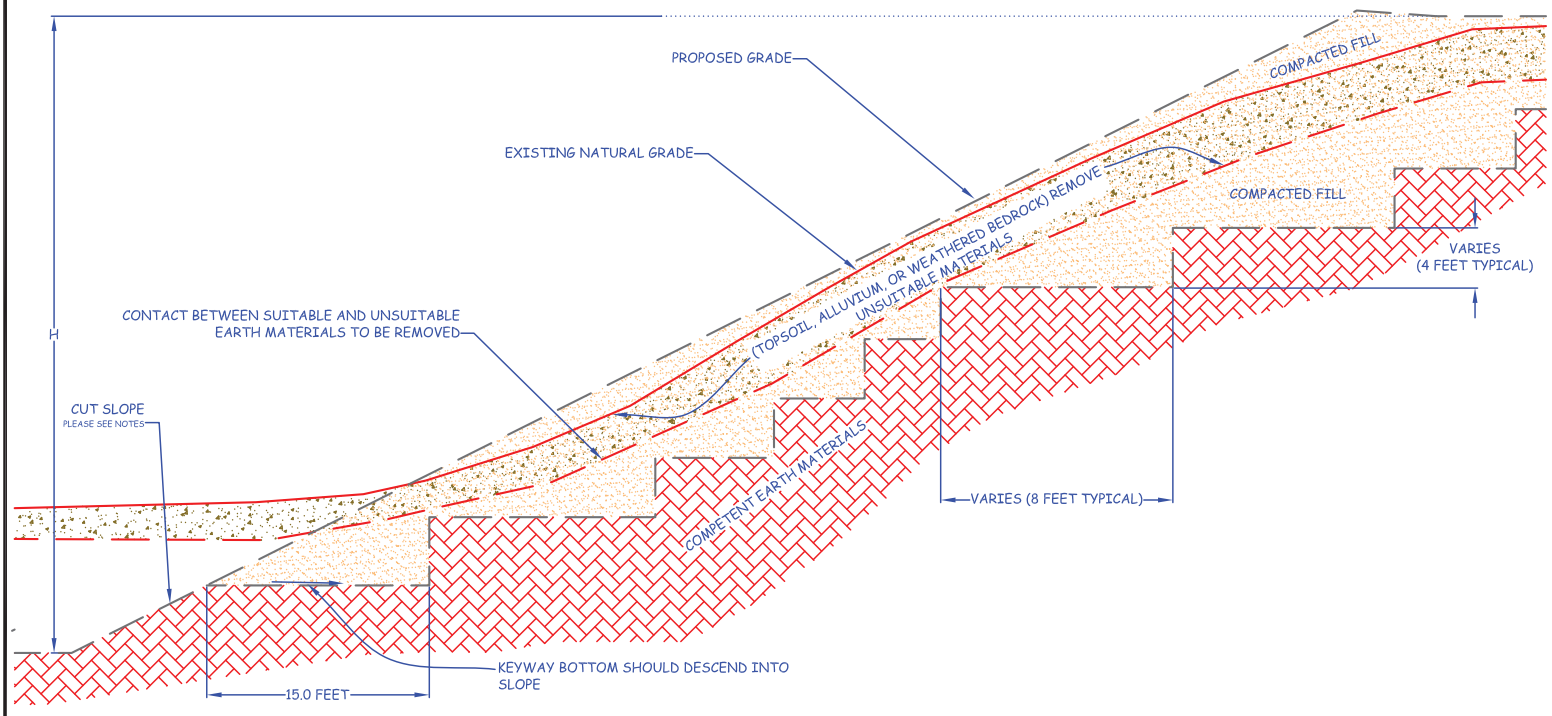
KEYWAY & BENCHING TYPICAL DETAILS
FILL OVER CUT SLOPE



KEYWAY DIMENSIONS PER GEOTECHNICAL CONSULTANT / GEOLOGIST (TYPICALLY H/2 OR 15 FEET MIN.)

NOTES:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

THE CUT SLOPE MUST BE CONSTRUCTED FIRST

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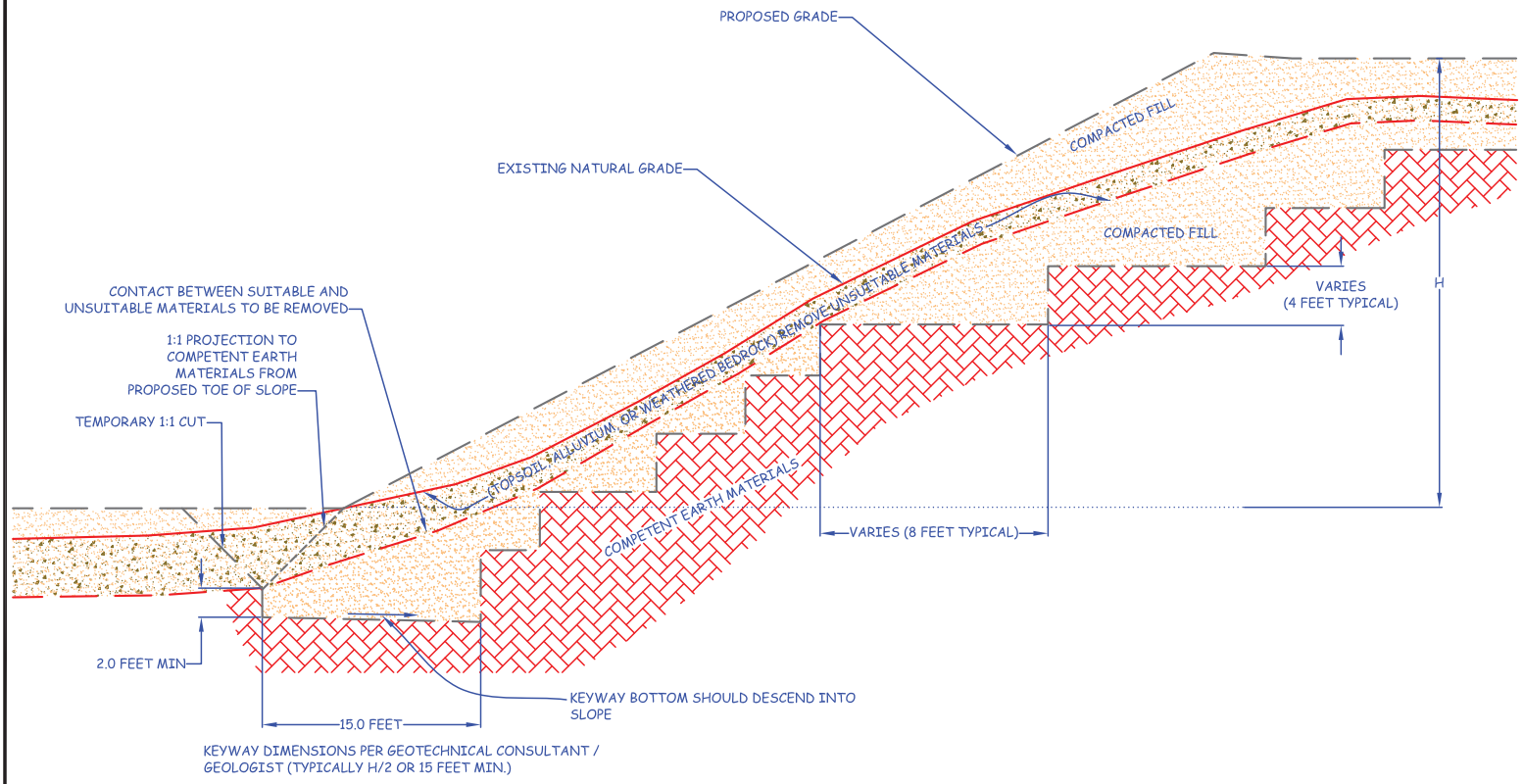
KEYWAY & BENCHING TYPICAL DETAILS
FILL SLOPE



NOTES:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

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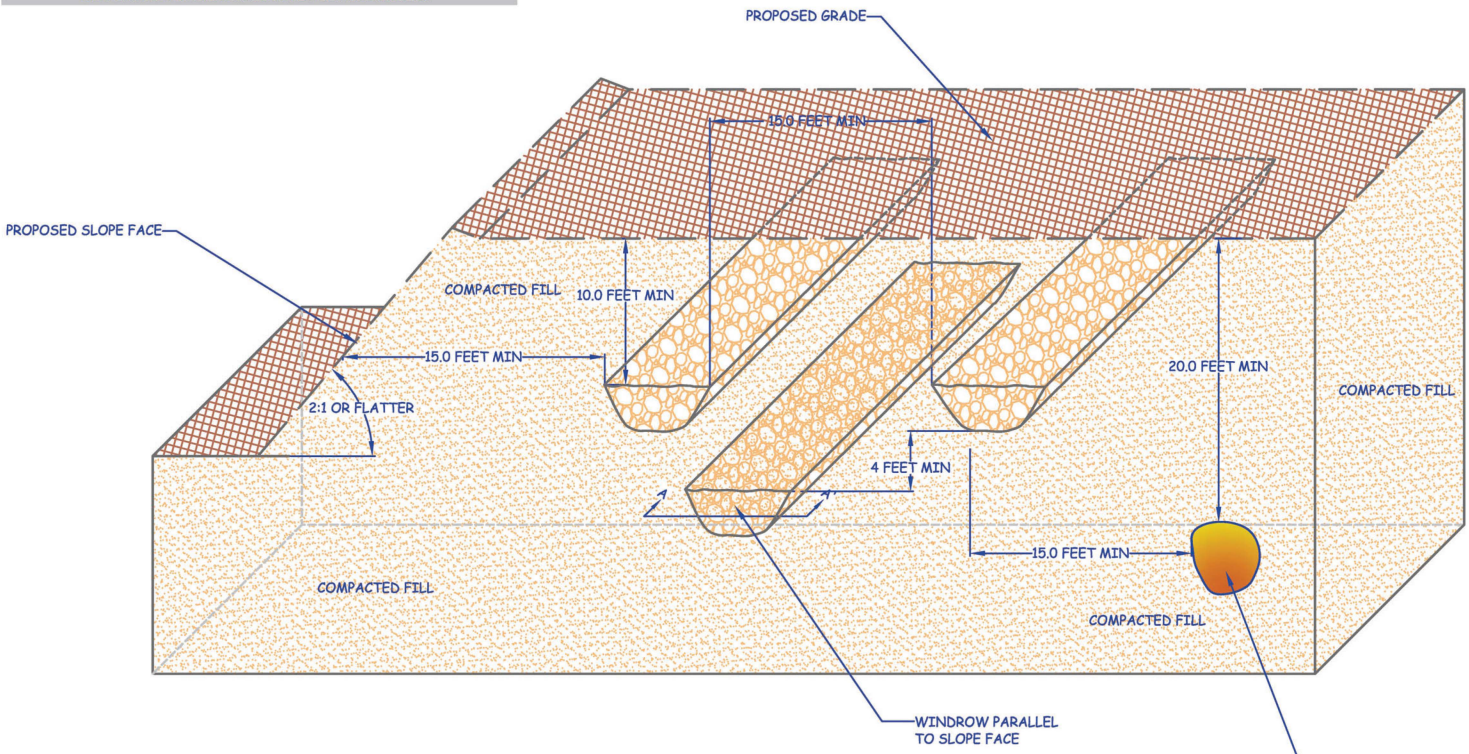
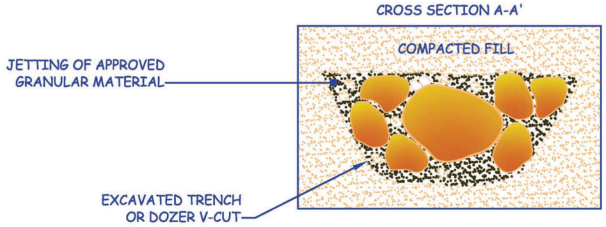
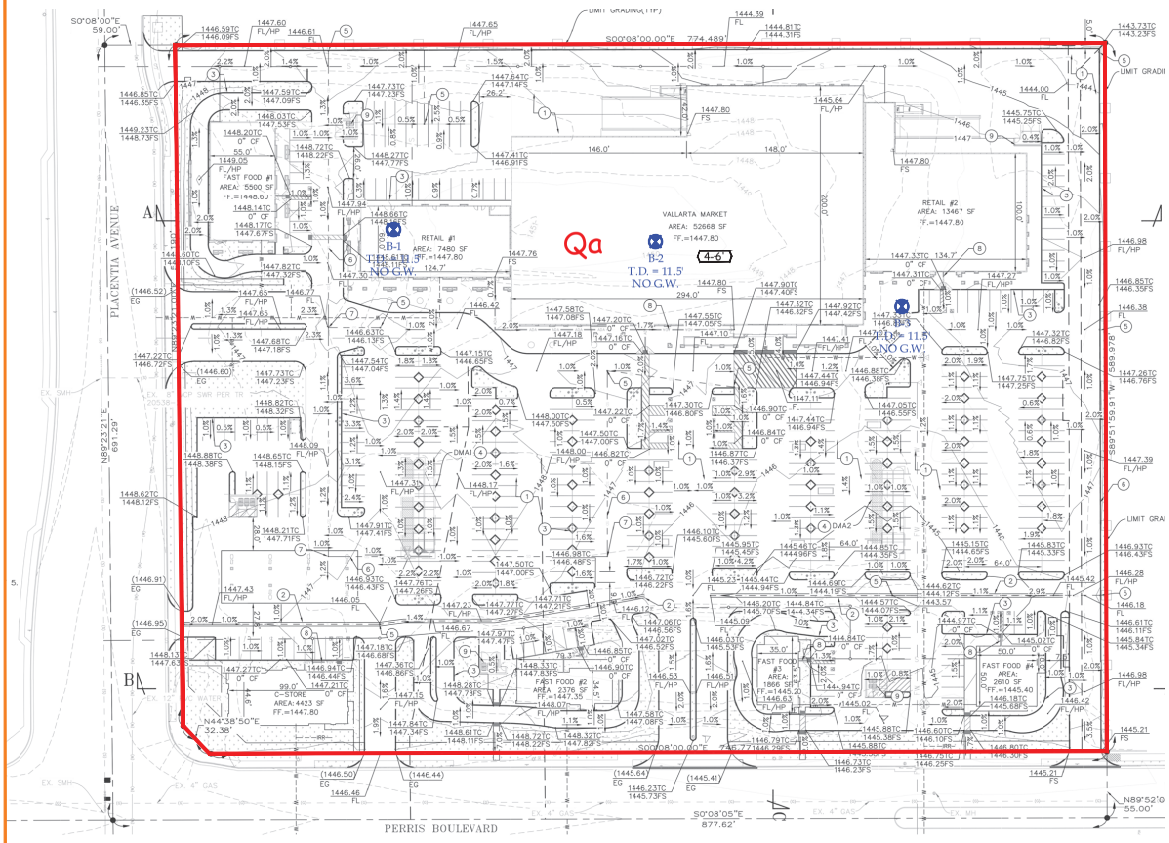
OVERSIZE ROCK TYPICAL DETAIL





NOTES:

OVERSIZE ROCK IS LARGER THAN
8 INCHES IN MAX DIAMETER



LEGEND

Locations are Approximate

Geologic Units

Qa - Quaternary Alluvium

Symbols

- Limits of Report

B-3
T.D. = 11.5'
NO G.W.
- Boring Location
Including Total Depth and Depth to Groundwater

4-6' - Recommended Removal Depths

NORTH

0 40 80 160

SCALE: 1" = 80'

GEOTECHNICAL MAP

LOCATED SOUTH OF PLACENTIA AVENUE AND EAST OF PERRIS BOULEVARD, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA

APN 300-260-001

PROJECT	*PROPOSED VALLARTA SUPERMARKETS*		
CLIENT	*VENTURA ENGINEERING*		
PROJECT NO.	*245753-10A*		
DATE	*MAY 2024*		
SCALE	*1" = 80'*		
DWG XREFS			
REVISION			
DRAWN BY	*JDG*	*PLATE*	*1 OF 1*

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REDLANDS, CALIFORNIA
301 9th Street, Suite 114
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October 6, 2023

Ryan Birdseye
Birdseye Planning Group
P.O. Box 1956
Vista, California 92085
Transmitted via email to ryan@birdseyeplanninggroup.com

RE: Paleontological Resource Assessment for the Perris Marketplace Project, City of Perris, Riverside County, California

Dear Ryan Birdseye,

At the request of Birdseye Planning Group, Chronicle Heritage conducted a paleontological resource assessment for the Perris Marketplace Project (Project) in the city of Perris, Riverside County, California. The goal of the assessment was to summarize the results of the museum record search, characterize the paleontological sensitivity of the geologic units present within the Project area, assess the potential for adverse effects to scientifically significant paleontological resources under California Environmental Quality Act (CEQA) guidelines, and provide management recommendations for avoiding or reducing adverse effects to paleontological resources from Project development, as necessary. This paleontological resource assessment included a pedestrian survey of the Project area and a fossil locality record search conducted by the Western Science Center (WSC) in Hemet, California. The record search was supplemented by a review of existing geologic maps and primary literature regarding fossiliferous geologic units within the proposed Project vicinity and region. This technical memorandum, written in accordance with the guidelines set forth by the Society of Vertebrate Paleontology (SVP) (2010), has been prepared to support environmental review under CEQA.

Project Location and Description

The Project area is on a 10.455-acre (ac) vacant parcel (Assessor's Parcel Number 300-260-001). The property is at the southeastern corner of Perris Boulevard and Placentia Avenue in the northern extent of the city of Perris. The Project area is surrounded by commercial and industrial development across Perris Boulevard to the west, and modern residential housing to the east, south, and north (Figure 1). The Project encompasses portions of Section 17, Township 4 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted on the Perris, California (1980) U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figure 2). The proposed Project involves the development a commercial real estate center and supermarket.

Figure 1. Project vicinity map.

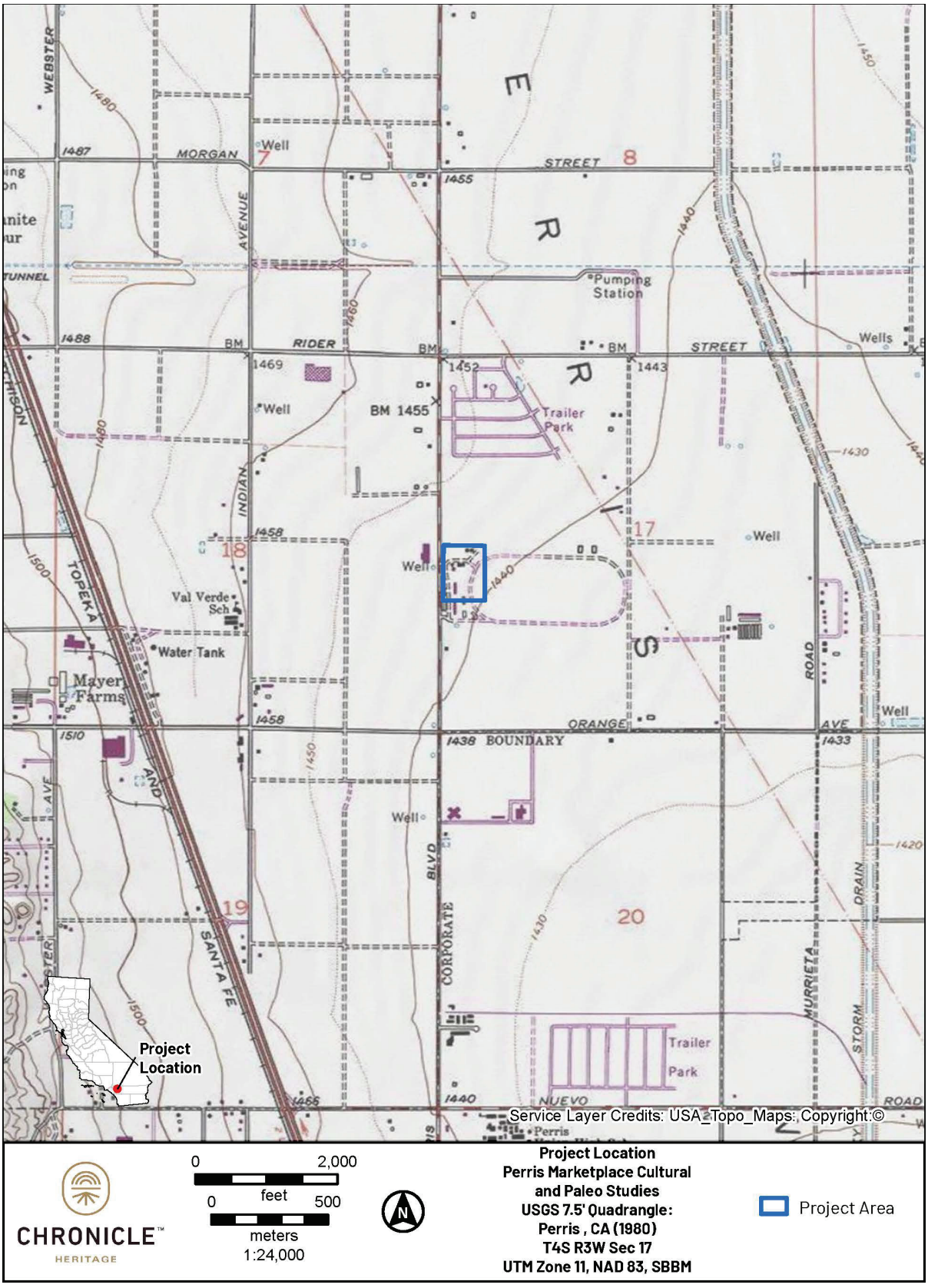


Figure 2. Project location map.

Regulatory Context

Paleontological resources (i.e., fossils) are considered nonrenewable scientific resources because, once destroyed, they cannot be replaced. As such, paleontological resources are afforded protection under various federal, state, and local laws and regulations. Laws pertinent to this Project are discussed below.

State Laws and Regulations

California Environmental Quality Act

CEQA requires that public agencies and private interests identify the potential environmental consequences of their projects on any object or site of significance to the scientific annals of California (Division I, California Public Resources Code [PRC] Section 5020.1[j]). Appendix G in Section 15023 provides an Environmental Checklist of questions (Section 15023, Appendix G, Section XIV, Part A) that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?"

California Public Resources Code

Section 5097.5 of the PRC states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this PRC section, 'public lands' means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof.

Consequently, public agencies are required to comply with PRC 5097.5 for their activities including construction and maintenance as well as for permit actions (e.g., encroachment permits) undertaken by others.

Local

The City of Perris General Plan Conservation Element (City of Perris, 2008) divides the city into five areas based on their paleontological potential. The Project is in "Area #1", which contains mapped geological units that have been assigned a "high sensitivity," including the older valley alluvial deposits from the Pleistocene Epoch (2.58 million years ago [Ma] to 11,700 years ago). According to Goal IV—Cultural Resources, Policy IV.A, Implementation Measure IV.A.4 of the General Plan, "[i]n Area 1 and Area 2 shown on the Paleontological Sensitivity Map, paleontologic (sic) monitoring of all projects requiring subsurface excavations will be required once any excavation begins" (City of Perris, 2008, p. 47).

Paleontological Resource Potential

Resource Significance

CEQA does not define "a unique paleontological resource or site." However, the SVP has provided guidance designed to support state and Federal environmental review. The SVP broadly defines significant paleontological resources as follows:

> Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)(SVP, 2010:11).

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, diagnostically important, or common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiometric dating is possible. As such, common fossils (especially vertebrates) may be scientifically important and therefore considered significant.

Paleontological Sensitivity

Absent specific agency guidelines, most professional paleontologists in California adhere to the guidelines set forth by the SVP (2010) to determine the course of paleontological mitigation for a given project. These guidelines establish protocols for the assessment of the paleontological resource potential of underlying geologic units and outline measures to mitigate adverse impacts that could result from project development. Using baseline information gathered during a paleontological resource assessment, the paleontological resource potential of the geologic units (or members thereof) underlying a project area can be assigned to one of four categories defined by SVP (2010) . Although these standards were written specifically to protect vertebrate paleontological resources, all fields of paleontology have adopted the following guidelines.

High Potential (Sensitivity)

Rock units from which significant vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered have a high potential for containing significant nonrenewable fossiliferous resources. These units include but are not limited to sedimentary formations and some volcanic formations that contain significant nonrenewable fossiliferous resources.

Low Potential (Sensitivity)

Sedimentary rock units that are potentially fossiliferous but have not yielded fossils in the past or contain common and widespread invertebrate fossils of well-documented and understood taphonomic, phylogenetic species, and habitat ecology have a low potential for containing

significant nonrenewable fossiliferous resources. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow a determination that some areas or units have low potential for yielding significant fossils before the start of construction. Generally, these units will be poorly represented by specimens in institutional collections and will not require protection or salvage operations. However, as excavation for construction is underway, it is possible that significant and unanticipated paleontological resources might be encountered and require a change of classification from low to high potential and, thus, require monitoring and mitigation if the resources are found to be significant.

Undetermined Potential (Sensitivity)

Specific areas underlain by sedimentary rock units for which little information is available have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to determine the rock units' potential are required before programs of impact mitigation for such areas can be developed.

NO POTENTIAL

Rock units of metamorphic or igneous origin are commonly classified as having no potential for containing significant paleontological resources.

Methods

To assess whether a particular area has the potential to contain significant fossil resources at the subsurface, it is necessary to review published geologic mapping to determine the geology and stratigraphy of the area. Geologic units are considered "sensitive" for paleontological resources if they are known to contain significant fossils anywhere in their extent. Therefore, a search of pertinent local and regional museum repositories for paleontological localities within and nearby the Project area is necessary to determine whether fossil localities have been previously discovered within a particular rock unit. For this Project, a formal museum record search was conducted at the WSC. Informal record searches were also conducted of the online University of California Museum of Paleontology Collections and San Diego Natural History Museum Collections, the online Paleobiology Database, FAUNMAP, Integrated Digitized Biocollections, and other published and unpublished geological and paleontological literature of the area.

Resource Context

Geologic Setting

The Project area is in the north-central portion of the Peninsular Ranges geomorphic province. A geomorphic province is a region of unique topography and geology distinguished from other regions based on its landforms and diastrophic history. The Peninsular Ranges are a northwest–southeast-oriented complex of blocks that extend 125 miles (mi) from the Transverse Ranges and Los Angeles Basin to the tip of Baja California. The Peninsular Ranges are bounded to the east by the Colorado Desert and range in width from 30 to 100 mi (Norris and Webb, 1976). Locally, Perris is underlain by alluvial sediments from the Pleistocene Epoch (2.6 million years ago to 11,700 years ago) and the Holocene Epoch (11,700 years ago to present), reaching at least 1,000 feet (ft) deep (Woodford et al., 1971). The alluvial sediments are sourced from the surrounding elevated basement rock

composed of igneous and metamorphic rocks predominantly from the Lakeview Mountains Pluton to the north and east (Morton, 1969).

Site Specific Geology and Paleontology

According to Morton et al. (2003), the Project area is entirely underlain by very old alluvial fan deposits (Qvof) of well-indurated, reddish-brown sand from alluvial fans of the early Pleistocene Epoch (Figure 3). Elsewhere in San Bernardino County, Pleistocene deposits have produced remains of a diverse terrestrial fauna including ground sloth, deer, mammoth, camel, horse, bison, badger, mole, rabbit, gray fox, coyote, snake (Miller, 1971; Jefferson, 1991a, 1991b).

Pleistocene-age alluvial, fluvial, and lacustrine deposits have produced scientifically significant paleontological resources throughout southern California. East of the Project area, in the vicinity of Lakeview, a diverse assemblage of fossil resources included mammoth (*Mammuthus* sp.), sabre-tooth cat (*Smilodon* sp.), extinct horse (*Equus* sp.), bison (*Bison antiquus*), and numerous small mammals, reptiles, invertebrates, and plant remains (Springer et al., 2009). Southeast of the Project area, the largest known open-environment, nonasphaltic, late-Pleistocene fossil assemblage has been documented in the Diamond and Domenigoni Valleys, producing nearly 100,000 identifiable fossils representing over 105 vertebrate, invertebrate, and plant taxa. The vertebrate taxa include reptiles such as frogs, turtles, and lizards; birds such as robins, swallows, jays, ravens, hawks, and ducks; small mammals such as rabbit, squirrel, mice, and weasels; and large mammals such as fox, bear, coyote, deer, bison, mammoths, mastodons, and ground sloths (Springer et al., 2009) . The invertebrate and plant taxa include ostracods, snails, termites, slugs, beetles, bivalves, diatoms, pollen, and wood debris (Anderson et al., 2002).

Records Search Results

The WSC record search did not produce any fossil localities from within the Project area or within 1 mi (Attachment A). Searches of online fossil locality databases and other scientific literature (Miller, 1971; Jefferson, 1991a, 1991b; Graham and Lundelius, 2010; Paleobiology Database, 2023; San Diego Natural History Museum, 2023; University of California Museum of Paleontology, 2023) produced one fossil locality within a 3-mi radius of the Project area. The locality produced fossil specimens of a partial cranium, left and right tusk, molars, sacrum, vertebrae, and ribs of a mastodon (*Mammut pacificus*) approximately 2.5 mi away in Perris at an unspecified depth (Dooley et al., 2019).

Field Survey

PaleoWest Senior Paleontologist Benjamin Scherzer, M.S., conducted a pedestrian field survey of the Project area on August 3, 2023. The purpose of the field survey was to visually inspect the ground surface for exposed fossils and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. Approximately 50 percent of the central Project area was overgrown by grasses and shrubs. The ground surface along the boundary of the Project area was recently mowed and tilled, which turned up and exposed the soil and underlying sediment (Figure 4). The Project area was inspected by walking 2-meter transects with additional focus paid to areas of exposed sediment. Sediment was a massive, medium brown clay to silt with abundant subangular pebbles. No paleontological resources were observed during the field survey (Figure 5).

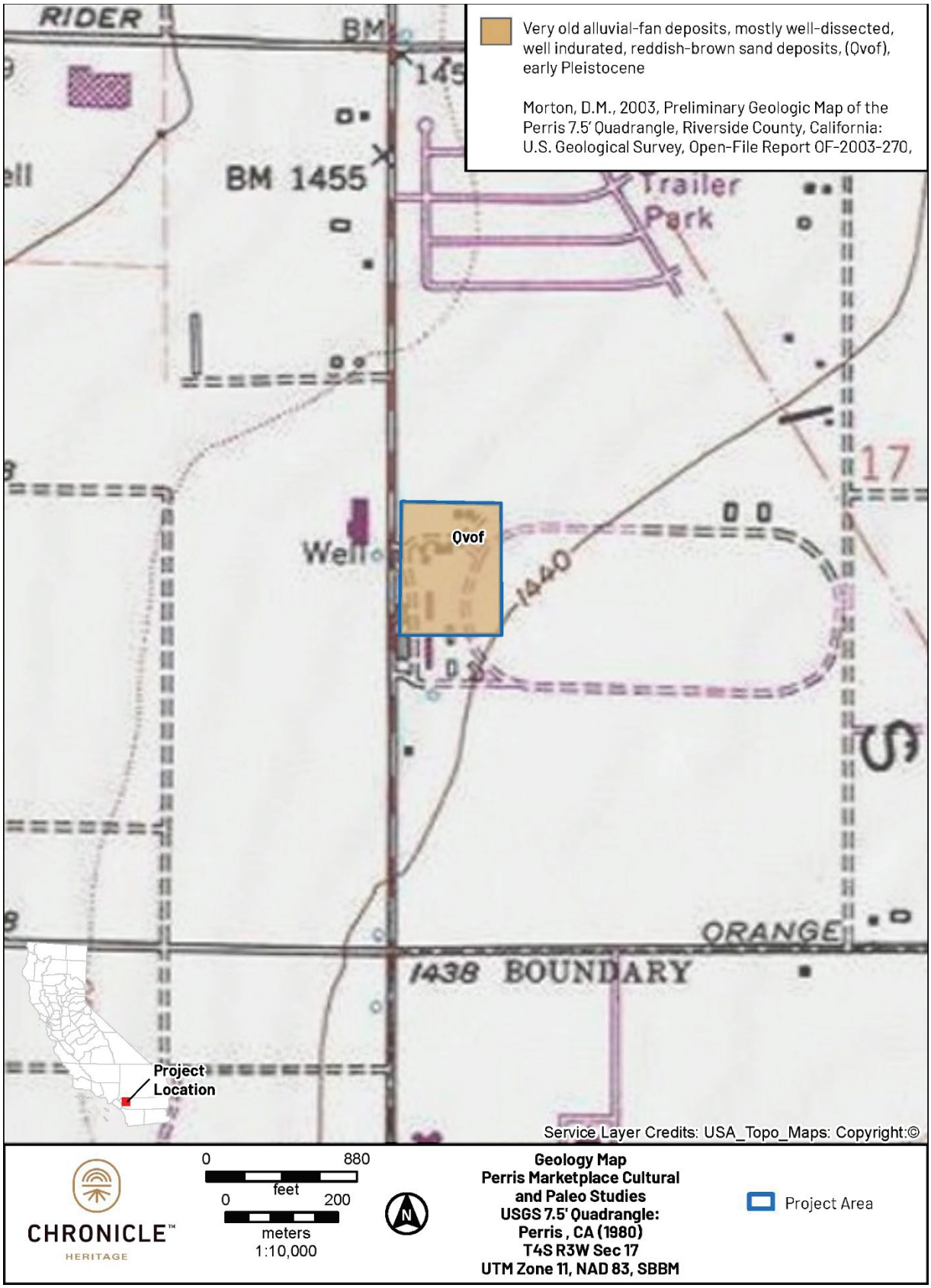


Figure 3. Geologic map of the Project area.

Figure 4. View of Project area from southwestern corner to the northeast showing signs of recent ground disturbance and human trash.

Figure 5. Exposed natural ground surface along eastern edge.

Findings

This memorandum uses the SVP system (2010) to assess paleontological sensitivity and the level of effort required to manage potential impacts to significant fossil resources. Using this system, the sensitivity of geologic units was determined by the relative abundance and risk of adverse impacts to vertebrate fossils and significant invertebrates and plants.

Based on the literature review and museum record search results, and in accordance with the SVP (2010) sensitivity scale, the Quaternary very old alluvial fan deposits (Qvof) in the Project area have high paleontological sensitivity because similar deposits have yielded significant fossils in the vicinity. This sensitivity is consistent with the City of Perris General Plan Conservation Element (2008), which assigns a high sensitivity to the Pleistocene deposits in the area. This sensitivity is also consistent with the paleontological sensitivity of the Project area as mapped by the County of Riverside (2015), which shows high sensitivity in the Project area. Because of the presence of fossil localities in the vicinity, Project-related ground disturbance has the potential to impact paleontological resources throughout the Project area.

Recommendations

In general, the potential for a given project to result in impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for impacts to paleontological resources. Since this Project entails excavation and grading for a commercial center, significant ground disturbances are anticipated. The presence of Pleistocene-age sediment at the surface suggests that ground disturbance may result in significant impacts under CEQA to paleontological resources such as destruction, damage, or loss of scientifically important paleontological resources. Therefore, a qualified paleontologist should be retained to develop and implement the measures recommended below. These measures have been developed in accordance with SVP guidelines; if implemented, these measures will satisfy the requirements of CEQA.

Worker's Environmental Awareness Program (WEAP)

Prior to the start of the proposed Project activities, all field personnel should receive a worker's environmental awareness training on paleontological resources. The training should provide a description of the laws and ordinances protecting fossil resources, the types of fossil resources that may be encountered in the Project area, the role of the paleontological monitor, the outline steps to follow if a fossil discovery is made, and contact information for the project paleontologist. The training will be developed by the project paleontologist and can be delivered concurrently with other training, including cultural, biological, safety, and others.

Paleontological Mitigation Monitoring

Prior to the commencement of ground disturbing activities, a professional paleontologist should be retained to prepare and implement a paleontological mitigation plan for the Project. The plan needs describe the monitoring required during ground-disturbing activities. Monitoring should entail the visual inspection of excavated or graded areas and trench sidewalls. If the project paleontologist determines full-time monitoring is no longer warranted based on the geologic conditions at depth, they may recommend that monitoring be reduced or cease entirely.

Fossil Discoveries

If a paleontological resource is discovered, the monitor will have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and, if appropriate, collected. If the resource is determined to be of scientific significance, the Project Paleontologist shall complete the following:

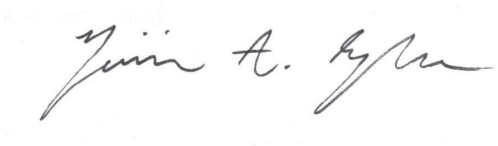
1. **Salvage of Fossils.** If fossils are discovered, all work in the immediate vicinity should be halted to allow the paleontological monitor and project paleontologist to evaluate the discovery and determine if the fossil may be considered significant. If the fossils are determined to be potentially significant, the project paleontologist (or paleontological monitor) should recover them following standard field procedures for collecting paleontological resources as outlined in the paleontological mitigation plan for the Project. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossils can be removed in a safe and timely manner.
2. **Fossil Preparation and Curation.** The paleontological mitigation plan for the Project will identify the museum that has agreed to accept fossils that may be discovered during Project-related excavations. Upon completion of fieldwork, all significant fossils collected will be prepared in a properly equipped laboratory to a point ready for curation. Preparation may include the removal of excess matrix from fossil materials and stabilizing or repairing specimens. During preparation and inventory, the fossils specimens will be identified to the lowest taxonomic level practical prior to curation at an accredited museum. The fossil specimens must be delivered to the accredited museum or repository no later than 30 days after all laboratory work is completed. The cost of curation will be assessed by the repository and will be the responsibility of the client.

Final Paleontological Mitigation Report

Upon completion of ground disturbing activity (and curation of fossils if necessary), the project paleontologist should prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report should include a discussion of the location, duration, and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils and where fossils were curated.

Thank you for contacting PaleoWest for this Project. If you have any questions, please do not hesitate to contact us.

Sincerely,



Benjamin Scherzer, M.S. | Senior Paleontologist
PALEOWEST

References

Anderson, R.S., Power, M.J., Smith, S.J., Springer, K., and Scott, E., 2002, Paleoecology of a Middle Wisconsin Deposit from Southern California: Quaternary Research, v. 58, p. 310–317, doi:10.1006/qres.2002.2388.

City of Perris, 2008, General Plan Conservation Element: California, City of Perris Development Services, originally adopted 2005, Sustainable Community Amendment 2008.

Dooley, A.C., Jr., Scott, E., Green, J., Springer, K.B., Dooley, B.S., and Smith, G.J., 2019, *Mammut pacificus* sp. nov., a newly recognized species of mastodon from the Pleistocene of western North America: PeerJ, v. 7, p. e6614, doi:10.7717/peerj.6614.

Graham, R.W., and Lundelius, E.L., 2010, FAUNMAP II: New Data for North American with a Temporal Extension for the Blancan, Irvingtonian and Early Rancholabrean: Overview, https://ucmp.berkeley.edu/faunmap/about/index.html (accessed October 2023).

Jefferson, G.T., 1991a, A Catalogue of Late Quaternary Vertebrates from California: Part One, Nonmarine Lower Vertebrate and Avian Taxa: Natural History Museum of Los Angeles County Technical Reports 5, 135 p., http://ibecproject.com/PREDEIR_0000133.pdf.

Jefferson, G.T., 1991b, A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals: Natural History Museum of Los Angeles County Technical Reports 7, 135 p., http://ibecproject.com/PREDEIR_0000133.pdf.

Miller, W.E., 1971, Pleistocene Vertebrates of the Los Angeles Basin and Vicinity: (exclusive of Rancho La Brea): Los Angeles, Los Angeles County Museum of Natural History, Bulletin of the Los Angeles County Museum of Natural History, Science No. 10, 136 p.

Morton, D.M., 1969, The Lakeview Mountains Pluton, Southern California Batholith Part I: Petrology and Structure: GSA Bulletin, v. 80, p. 1539–1552, doi:10.1130/0016-7606(1969)80[1539:TLMPSC]2.0.CO;2.

Morton, D.M., Kennedy, M.P., Bovard, K.R., and Burns, D., 2003, Geologic map and digital database of the Bachelor Mountain 7.5′ quadrangle, Riverside County, California: Reston, Virginia, U.S. Geological Survey, Open-File Report 2003–103, doi:10.3133/ofr03103.

Norris, R.M., and Webb, R.W., 1976, Geology of California: New York, Wiley, 378 p.

Paleobiology Database, 2023, The Paleobiology Database: About the PBDB, https://paleobiodb.org/#/ (accessed August 2023).

Riverside County, 2015, Chapter 5: Multipurpose Open Space Element, *in* Riverside County General Plan, Riverside County Planning Department, https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-general-Plan-2017-elements-OCT17-Ch05-MOSE-120815.pdf (accessed July 2023).

San Diego Natural History Museum, 2023, Collection Database: Searchable Collection, https://www.sdnhm.org/science/paleontology/resources/collection-database (accessed July 2023).

Society of Vertebrate Paleontology [SVP], 2010, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources: Society of Vertebrate Paleontology, Impact Mitigation Guidelines Revision Committee, https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf (accessed October 2022).

Springer, K.B., Scott, E., Sagebiel, J.C., and Murray, L.K., 2009, The Diamond Valley Lake Local Fauna: Late Pleistocene Vertebrates from Inland Southern California, *in* Albright, L.B. ed., Papers on Geology, Vertebrate Paleontology and Biostratigraphy in Honor of Michael O. Woodburne, Flagstaff, Arizona, Museum of Northern Arizona, Bulletin 65, p. 681.

University of California Museum of Paleontology, 2023, Specimen search: UCMP Specimen Search, https://ucmpdb.berkeley.edu/ (accessed September 2023).

Woodford, A.O., Shelton, J.S., Doehring, D.O., and Morton, R.K., 1971, Pliocene-Pleistocene History of the Perris Block, Southern California: GSA Bulletin, v. 82, p. 3421–3448, doi:10.1130/0016-7606(1971)82[3421:PHOTPB]2.0.CO;2.

Attachment A.
WSC Record Search Results

WESTERN SCIENCE CENTER

September 22nd, 2023

Chronicle Heritage
Benjamin Scherzer
301 9th Street, Suite 114
Redlands, CA 92374

Dear Mr. Scherzer,

This letter presents the results of a record search conducted for La Strada Extension Project located in the City of Lake Elsinore, Riverside County, CA. The project is located north of Cam Del Norte on Section 33 of Township 5 South, Range 4 West and Sections 3 and 4 of Township 6 South, Range 4 West the *Elsinore, CA* U.S. Geological Survey 7.5' quadrangle.

The geologic units underlying this project are mapped as alluvial units from the Holocene and Pleistocene epochs, along with portions of Mesozoic phyllite and granodiorite (Morton and Weber 2003). Holocene alluvial units are considered to be of high preservation value, but material found is unlikely to be fossil material due to the relatively modern associated dates of the deposits. Pleistocene alluvial units are considered to be highly paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius, but does have localities within similarly mapped units across Southern California, including the Summerly Project located approximately five miles southeast of the project area.

Any fossil specimen from the La Strada Extension Project would be scientifically significant. Excavation activity associated with the development of the project area would impact the paleontologically sensitive Pleistocene alluvial units, and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the study area.

If you have any questions, or would like further information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

Brittney Elizabeth Stoneburg, MSc
Collections Manager

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Ventura Engineering Inland

PRELIMINARY WATER QUALITY MANAGEMENT PLAN
SANTA ANA REGION OF RIVERSIDE COUNTY

PERRIS VALLARTA

SE CORNER OF PLACENTIA & PERRIS BLVD
PERRIS, CALIFORNIA 92571
APN: 300-260-001-8 *LEGAL: LOT 156 OF TRACT 20538-2 PER MB/P 202/12*

PREPARED FOR:
VALLARTA SUPERMARKETS
12881 BRADLEY AVENUE
SYLMAR, CALIFORNIA 91342
(818) 491-6420

PREPARED BY:
VENTURA ENGINEERING INLAND
27393 YNEZ ROAD, SUITE 159
TEMECULA, CALIFORNIA 92591
(951) 252-7632
wilfredo@venturaengineeringinland.com

ORIGINAL DATE: *August 28, 2023*

I hereby declare that I am the Engineer of Record for this project, that I have exercised responsible charge over the design of the project as defined in Section 6703 of the Business and Professions code, and that the design is consistent with current standards.

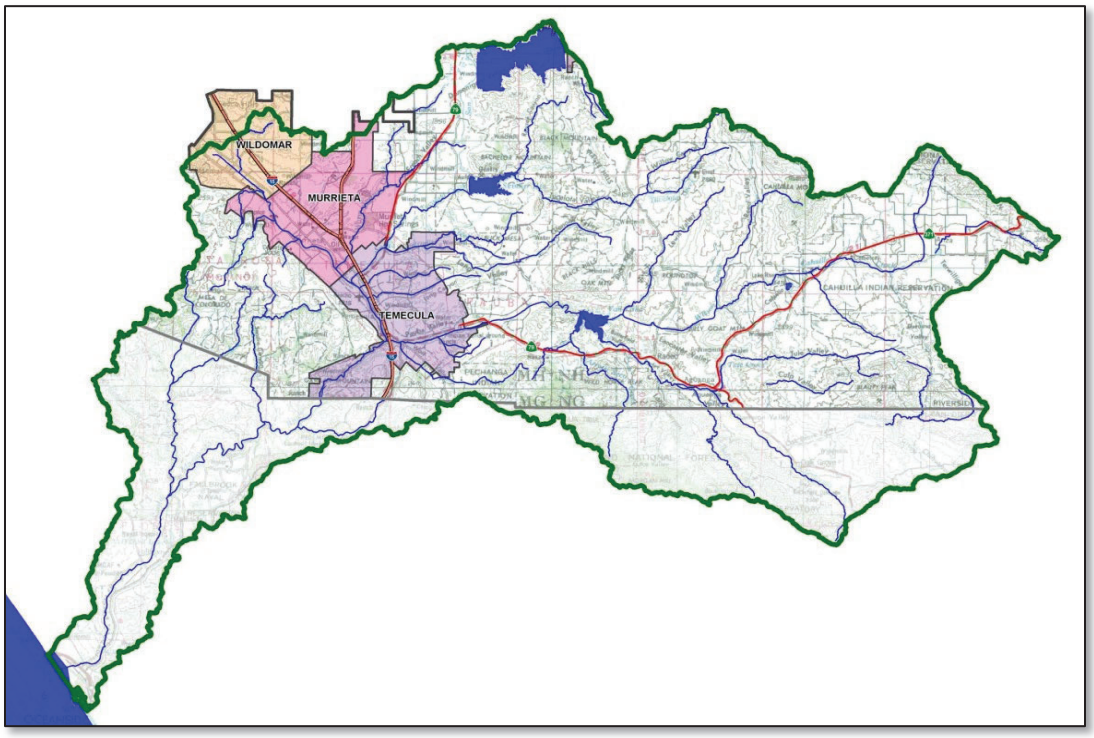
WILFREDO VENTURA
R.C.E. NO. 66532
EXPIRES 6/30/24

8/28/23
DATE

County Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Perris Vallarta
Development No: APN: 300-260-001-8
Design Review/Case No: _____
BMP$_i$ (Latitude, Longitude): (Industrial Bldg) 33°49'18.84" N, 117° 13' 30.38" W



☒ **Preliminary**
☐ **Final**

Original Date Prepared: 8/28/2023

Revision Date(s): _____

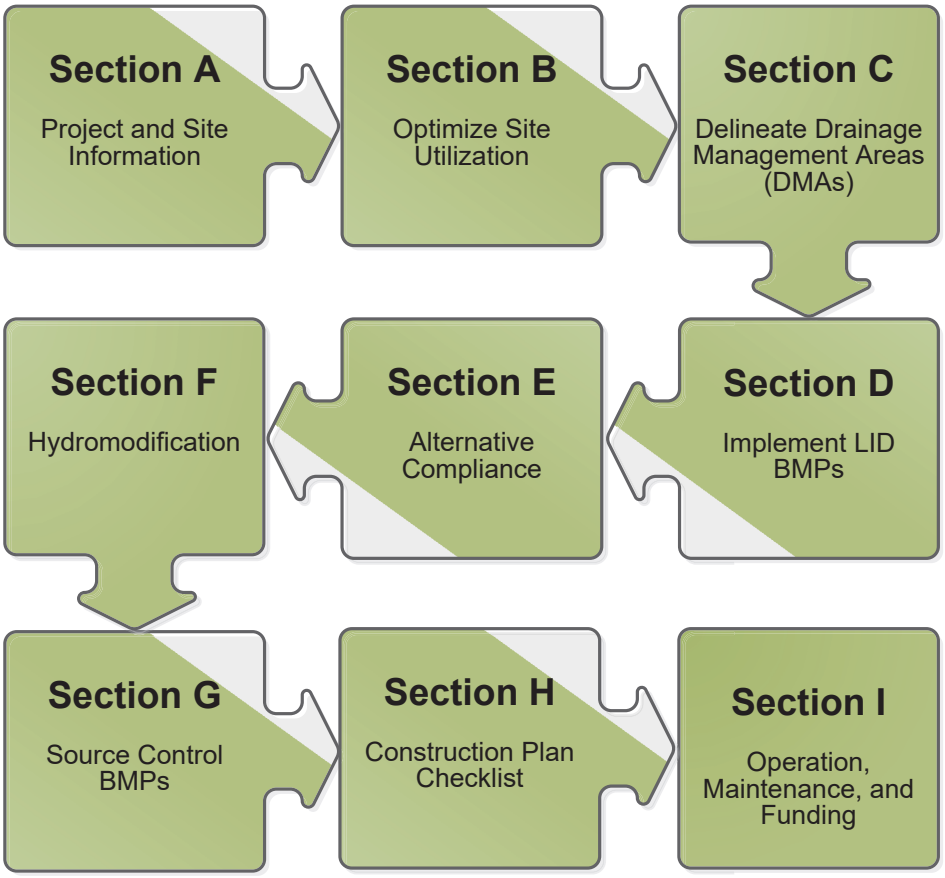
Based on 2018 WQMP, prepared for Compliance with Regional Board Order No. **R8-2010-0033**

Contact Information
Prepared for: Vallarta Supermarkets
12881 Bradley Avenue
Sylmar, California 91342
(818) 491-6420

Prepared by: Wilfredo Ventura
Ventura Engineering Inland, Inc.
27393 Ynez Rd, Ste 159, Temecula, California 92591
(951) 252-7632

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for the Perris Vallarta Supermarket by Ventura Engineering Inland, Inc. for the Vallarta Supermarket proposed to be located at the SE Corner of Placentia & Perris BLVD in Perris, California.

This WQMP is intended to comply with the requirements of the City of Perris which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under Riverside County Water Quality Ordinance (Municipal Code Section 857).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control Best Management Practices in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033**."

Preparer's Signature	Date
Wilfredo S.D. Ventura Preparer's Printed Name	Principal Engineer Preparer's Title/Position

Preparer's Licensure:

Table of Contents

List of Tables

List of Appendices

Section A: Project and Site Information

Use the table below to compile and summarize basic site information that will be important for completing subsequent steps. Subsections A.1 through A.4 provide additional detail on documentation of additional project and site information. The Regional MS4 Permit has effectively removed the ability for a project to be grandfathered from WQMP requirements. Even if a project were able to meet all the requirements stated in Section 1.2 of the WQMP, the 2014 WQMP requirements would apply.

PROJECT INFORMATION		
Type of PDP:	Commercial Project, Disturbing > 1 Acre	
Type of Project:	Tractor Trailer Storage and Maintenance Facility	
Planning Case Number:	PAR_____	
Rough Grade Permit No.:		
Development Name:	Perris Vallarta Supermarket	
PROJECT LOCATION		
Latitude & Longitude (DMS):	33° 49' 18.84" N, 117° 13' 30.38" W	
Project Watershed and Sub-Watershed:	Santa Ana River / Canyon Lake	
24-Hour 85th Percentile Storm Depth (inches):	0.61	
Is project subject to Hydromodification requirements?	☐ Y ☒ N (Select based on Section A.3)	
APN(s):	300-260-001-8	
Map Book and Page No.:	TB P777 Grids G4 and G5	
PROJECT CHARACTERISTICS		
Proposed or Potential Land Use(s)		Commercial Super Market/Retail Stores/Gas Station/Restaurants
Proposed or Potential SIC Code(s)		5411, 5541, 5812, 599
Existing Impervious Area of Project Footprint (SF)		0 sq-ft
Total area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement		402,596 sq-ft
Total Project Area (ac)		10.465 acres
Does the project consist of offsite road improvements?		☒ Y ☐ N
Does the project propose to construct unpaved roads?		☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?		☐ Y ☒ N
Has preparation of Project-Specific WQMP included coordination with other site plans?		☒ Y ☐ N
EXISTING SITE CHARACTERISTICS		
Is the project located within any Multi-Species Habitat Conservation Plan area (MSHCP Criteria Cell?)		☐ Y ☒ N
Is a Geotechnical Report attached?		☐ Y ☒ N
If no Geotech. Report, list the Natural Resources Conservation Service (NRCS) soils type(s) present on the site (A, B, C and/or D)		Type B, C Soils

Provide a brief description of the project:

The project site redevelops an existing vacant commercial lot into a shopping center with multiple restaurants, a gas station, retail shops, and a Vallarta Supermarket.

Paver and dirt roads are considered pervious for determining WQMP applicability.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the Project vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Vicinity and location maps
- Parcel Boundary and Project Footprint
- Existing and Proposed Topography
- Drainage Management Areas (DMAs)
- Proposed Structural Best Management Practices (BMPs)
- Drainage Paths
- Drainage infrastructure, inlets, overflows
- Source Control BMPs
- Site Design BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Pervious Surfaces (i.e. Landscaping)
- Standard Labeling
- Cross Section and Outlet details

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Copermittee plan reviewer must be able to easily analyze your Project utilizing this template and its associated site plans and maps. Complete the checklists in Appendix 1 to verify that all exhibits and components are included.

A.2 Identify Receiving Waters

Using Table A-1 below, list in order of upstream to downstream, the Receiving Waters that the Project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated Beneficial Uses, and proximity, if any, to a RARE Beneficial Use. Include a map of the Receiving Waters in Appendix 1. This map should identify the path of the stormwater discharged from the site all the way to the outlet of the Santa Margarita River to the Pacific Ocean. Use the most recent 303(d) list available from the State Water Resources Control Board Website.
(http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/)

Table A-1 Identification of Receiving Waters

Receiving Waters	*USEPA Approved 303(d) List Impairments (2014-2016 303d SWRCB List)*	*Designated Beneficial Uses*	*Proximity to RARE Beneficial Use*
Local Drainage Conveyance	None	None	N/A
San Jacinto River Reach 2 (HU 802.11)	N/A	GWR, AGR, WILD, WARM, REC1, REC2, MUN	N/A
Canyon Lake (Railroad Canyon Reservoir) (HU 802.11)	Pathogens, Nutrients	GWR, REC1, MUN, AGR, WARM, REC2, WILD	N/A
San Jacinto River Reach 1 (HU 802.11)	N/A	AGR, GWR, MUN, REC1, REC2, WARM, WILD	N/A
Lake Elsinore (HU 802.31)	PCBs, Nutrients, Organic enrichment/Low Dissolved Oxygen, Sediment Toxicity, Unknown Toxicity	MUN, REC1, REC2, WARM, WILD, AGR, PROC	N/A

A.3 Additional Permits/Approvals required for the Project:

Table A-2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act Section 401 Water Quality Certification	☐ Y	☒ N
US Army Corps of Engineers, Clean Water Act Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage (WDID# TBD During Final Engineering)	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*		
- City of Perris Building Permit	☒ Y	☐ N
- City of Perris Grading Permit	☒ Y	☐ N
- State Industrial Permit Coverage (If Building Use Needs Them Required)	☒ Y	☐ N

If yes is answered to any of the questions above, the Copermittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The natural drainage pattern will be to pond water on-site and discharge through underground infiltration tanks. The natural drainage pattern for the undeveloped condition was to sheet flow out to the adjacent street curbs and gutters.

Did you identify and protect existing vegetation? If so, how? If not, why?

The project site was previously disturbed and as such, no natural vegetation remains on the project site.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Natural infiltration will be preserved through the use of the underground infiltration tanks and minimally compacting areas designed for larger landscaped areas.

Did you identify and minimize impervious area? If so, how? If not, why?

The project site is utilizing as much landscaping areas a feasible.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Landscaping elements are being used as much as feasible to break up impervious areas.

Section C: Delineate Drainage Management Areas (DMAs) & Green Streets

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C-1 DMA Identification

Table C-1: DMA 1 Breakdown			
DMA Name/ ID	***Surface Type(s)[1]***	***Area (Sq. Ft.)***	***DMA Type***
DMA1-R	ROOF	68,067	TYPE D – DRAINS TO BMP
DMA1-IMP	IMPERVIOUS PAVING	132,301	TYPE D – DRAINS TO BMP
DMA1-LS	LANDSCAPE	28,316	TYPE D – DRAINS TO BMP
DMA2-R	ROOF	29,467	TYPE D – DRAINS TO BMP
DMA2-IMP	IMPERVIOUS PAVING	165,331	TYPE D – DRAINS TO BMP
DMA2-LS	LANDSCAPE	24,690	TYPE D – DRAINS TO BMP
DMA3-IMP	IMPERVIOUS PAVING	7,430	TYPE D – DRAINS TO BMP (AREA SWAP)
DMA3-LS	LANDSCAPE	235	TYPE D – DRAINS TO BMP (AREA SWAP)
	TOTAL AREA:	455,836	

Step 3: DMA Classification

Determine how drainage from each DMA will be handled by using information from Steps 1 and 2 and by completing Steps 3.A to 3.C. Each DMA will be classified as one of the following four types:

- Type 'A': Self-Treating Areas:
- Type 'B': Self-Retaining Areas
- Type 'C': Areas Draining to Self-Retaining Areas
- Type 'D': Areas Draining to BMPs

Step 3.A – Identify Type 'A' Self-Treating Area

Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

☐ Yes ☒ No — Area is undisturbed from their natural condition OR restored with Native and/or California Friendly vegetative covers.

☐ Yes ☒ No — Area is irrigated, if at all, with appropriate low water use irrigation systems to prevent irrigation runoff.

☐ Yes ☒ No — Runoff from the area will not comingle with runoff from the developed portion of the site, or across other landscaped areas that do not meet the above criteria.

If all answers indicate "Yes," complete Table C-2 to document the DMAs that are classified as Self-Treating Areas.

Table C-2 Type 'A', Self-Treating Areas

Table C-2: Type 'A', Self-Treating DMAs			
DMA Name or Identification	***Area (Sq. Ft.)***	***Stabilization Type***	***Irrigation Type (if any)***
			NONE PROPOSED

Step 3.B – Identify Type 'B' Self-Retaining Area and Type 'C' Areas Draining to Self-Retaining Areas

Type 'B' Self-Retaining Area: A Self-Retaining Area is shallowly depressed 'micro infiltration' areas designed to retain the Design Storm rainfall that reaches the area, without producing any Runoff.

Indicate if the DMAs meet the following criteria by answering "Yes," "No," or "N/A".

☐ Yes ☐ No ☒ N/A	Inlet elevations of area/overflow drains, if any, should be clearly specified to be three inches or more above the low point to promote ponding.
☐ Yes ☐ No ☒ N/A	Soils will be freely draining to not create vector or nuisance conditions.
☐ Yes ☐ No ☒ N/A	Pervious pavements (e.g., crushed stone, porous asphalt, pervious concrete, or permeable pavers) can be self-retaining when constructed with a gravel base course four or more inches deep below any underdrain discharge elevation.

If all answers indicate "Yes," DMAs may be categorized as Type 'B', proceed to identify Type 'C' Areas Draining to Self-Retaining Areas.

Type 'C' Areas Draining to Self-Retaining Areas: Runoff from impervious or partially pervious areas can be managed by routing it to Self-Retaining Areas consistent with the LID Principle discussed in SMR WQMP Section 3.2.5 for 'Dispersing Runoff to Adjacent Pervious Areas'.
Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

☐ Yes ☒ No	The drainage from the tributary area must be directed to and dispersed within the Self-Retaining Area.
☐ Yes ☒ No	The maximum ratio of Tributary Area to Self-Retaining area is (2 ÷ Impervious Fraction): 1

If all answers indicate "Yes," DMAs may be categorized as Type 'C'.

Complete Table C-3 and Table C-4 to identify Type 'B' Self-Retaining Areas and Type 'C' Areas Draining to Self-Retaining Areas.

Table C-3 Type 'B', Self-Retaining Areas

Table C-3 Type 'B', Self-Retaining Areas						
Self-Retaining Area				*Type 'C' DMAs that are draining to the Self-Retaining Area*		
DMA Name/ ID	*Post-project surface type*	*Area (square feet)*	*Storm Depth (inches)*	*DMA Name / ID*	*[C] from Table C-4=*	*Required Retention Depth (inches)*
		[A]	*[B]*		*[C]*	*[D] =* $[B] + \frac{[B]\cdot[C]}{[A]}$
	NONE PROPOSED					

Table C-4 Type 'C', Areas that Drain to Self-Retaining Areas

Table C-4 Type 'C', Areas That Drain to Self-Retaining Areas							
DMA					*Receiving Self-Retaining DMA*		
DMA Name/ ID	*Area (square feet)*	*Post-project surface type*	*Runoff factor*	*Product*	*DMA name /ID*	*Area (square feet)*	*Ratio*
	[A]		*[B]*	*[C] = [A] x [B]*		*[D]*	*[C]/[D]*
NONE							
PROPOSED							

Note: (See Section 3.3 of SMR WQMP) Ensure that partially pervious areas draining to a Self-Retaining area do not exceed the following ratio:

$$\left(\frac{2}{Impervious\ Fraction}\right) : 1$$

(Tributary Area: Self-Retaining Area)

Table C.5 Type 'D', Areas Draining to BMPs

Table C-5 Type 'D'. Areas Draining to BMPs	
DMA Name or ID	*BMP Name or ID*
DMA1-R DMA1-IMP DMA1-LS 1/2 OF DMA3-IMP 1/2 OF DMA3-LS	DMA1:BMP1 INFILTRATION TANK
DMA2-R DMA2-IMP DMA2-LS 1/2 OF DMA3-IMP 1/2 OF DMA3-LS	DMA2:BMP2 INFILTRATION TANK
Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.	

Section D: Implement LID BMPs

The Regional MS4 Permit requires the use of LID BMPs to provide retention or treatment of the DCV and includes a BMP hierarchy which requires Full Retention BMPs (Priority 1) to be considered before Biofiltration BMPs (Priority 2) and Flow-Through Treatment BMPs and Alternative Compliance BMPs (Priority 3). LID BMP selection must be based on technical feasibility and should be considered early in the site planning and design process. Use this section to document the selection of LID BMPs for each DMA. Note that feasibility is based on the DMA scale and may vary between DMAs based on site conditions.

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☒ Y ☐ N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: 1.0 in/hr for DMA1, DMA2, and DMA3		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☒ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐ The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: n/a

Type of Landscaping (Conservation Design or Active Turf): n/a

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: n/a

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: n/a

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: n/a

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
n/a	n/a

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: n/a

Project Type: n/a

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: n/a

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: n/a

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: n/a

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
n/a	n/a

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

n/a

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: n/a

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: n/a

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: n/a

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: n/a

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
n/a	n/a

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.1 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA1	☒	☐	☐	☐	☐
DMA2	☒	☐	☐	☐	☐
DMA3	☒	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

Infiltration is being used. LID infeasibility analysis is not required.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.2 DCV Calculations for LID BMPs

Table D.3 DCV Calculations for LID BMP1

DMA Type/ID	***DMA Area (square feet)***	***Post-Project Surface Type***	***Effective Impervious Fraction, I_f***	***DMA Runoff Factor***	***DMA Areas x Runoff Factor***	*DMA1 – BMP1 UNDERGROUND INFILTRATION TANK*		
	[A]		***[B]***	***[C]***	***[A] x [C]***			
R	68, 067	ROOFS	1.0	0.892	60,715.8			
IMP	132,301	AC PAVING	1.0	0.892	118,012.5			
LS	28,316	LANDSCAPE	0.1	0.110	3,127.7			
* HALF DMA3-IMP	3,715	AC PAVING	1.0	0.892	3,318.8			
* HALF DMA3-LS	117.5	LANDSCAPING	0.1	0.110	13			
	232,516.5				185,182.8	0.61	9,413.5	9,830

Design Storm Depth (in)	**Design Capture Volume, V_{BMP} (cubic feet)**	**Proposed Volume on Plans (cubic feet) ****

Notes:
* DMA 3 Drains directly offsite. For treatment purposes, DMA1 has its treatment quantities increased to accommodate the site's inability to capture this offsite flow so that it is still volumetrically treated.
** Volume of DMA1-BMP1 = 9,830 cu-ft per ADS System Design Results provided in Appendix 6.

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Table D.3 DCV Calculations for LID BMP2

DMA Type/ID	***DMA Area (square feet)***	***Post-Project Surface Type***	***Effective Impervious Fraction, I_f***	***DMA Runoff Factor***	***DMA Areas x Runoff Factor***	*DMA2 – BMP2 UNDERGROUND INFILTRATION TANK*		
	[A]		***[B]***	***[C]***	***[A] x [C]***			
R	29,467	ROOFS	1.0	0.892	26,284.6	**Design Storm Depth (in)**	**Design Capture Volume, V_{BMP} (cubic feet)**	**Proposed Volume on Plans (cubic feet) ****
IMP	165,331	AC PAVING	1.0	0.892	147,475.3			
LS	24,690	LANDSCAPE	0.1	0.110	2,727.2			
* HALF DMA3-IMP	3,715	AC PAVING	1.0	0.892	3,318.8			
* HALF DMA3-LS	117.5	LANDSCAPING	0.1	0.110	13			
	223,320.5				179,813.9	0.61	9,140.5	9,563

Notes:
* DMA 3 Drains directly offsite. For treatment purposes, DMA2 has its treatment quantities increased to accommodate the site's inability to capture this offsite flow so that it is still volumetrically treated.
** Volume of DMA2-BMP2 = 9,563 cu-ft per ADS System Design Results provided in Appendix 6.

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

N/A

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☐ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☐	☐	☐	☐	☐	☐	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]				
						Design Storm Depth (in)	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
N/A									
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A		

[1] *Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.*
[2] *Cross Reference Table E.1 above to populate this column.*
[3] *As documented in a Co-Permittee Approved Study and provided in Appendix 6.*

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration			
Volume (Cubic Feet)			

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

Project is upstream of Canyon Lake.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	*Permanent Structural Source Control BMPs*	*Operational Source Control BMPs*
A. On-site storm drain inlets	Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	Maintain and periodically repaint or replace inlet markings.
		Provide stormwater pollution prevention information to new site owners, lessees, or operators.
		See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
		Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
D1. Need for future indoor & structural pest control	Note building design features that discourage entry of pests.	Provide Integrated Pest Management information to owners, lessees, and operators.
D2. Landscape/Outdoor Pesticide Use	State that final landscape plans will accomplish all of the following: Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.	Maintain landscaping using minimum or no pesticides
	Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.	See applicable operational BMPs in "What you should know for…..Landscape and Gardening" at http://rcflood.org/stormwater/Error! Hyperlink reference not valid.
	Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.	Provide Integrated Pest Management information to new owners, lessees and operators
	Consider using pest-resistant plants, especially adjacent to hardscape.	
	To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	

Potential Sources of Runoff pollutants	*Permanent Structural Source Control BMPs*	*Operational Source Control BMPs*
F. Food service	Describe the location and features of the designated cleaning area. Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	See the brochure, 'The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries' at http://rcflood.org/stormwater/Provide this brochure to new site owners, lessees, and operators.
G. Refuse areas	State how site refuse will be handled and provide supporting detail to what is shown on plans. near dumpsters with the words "Do not dump hazardous materials here" or similar.	State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
L. Fuel Dispensing Areas		The property owner shall dry sweep the fueling area routinely. See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
M. Loading Docks		Move loaded and unloaded items indoors as soon as possible. See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
N. Fire Sprinkler Test Water	Provide a means to drain fire sprinkler test water to the sanitary sewer.	See the note in Fact Sheet SC-41, Building and Grounds Maintenance, in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water: Condensate Drain Lines	Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.	
O. Miscellaneous Drain or Wash Water: Drainage Sump	Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.	
O. Miscellaneous Drain or Wash Water: Rooftop Equipment	Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.	
O. Miscellaneous Drain or Wash Water: Roof, gutters and trim	Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.	
P. Plazas, sidewalks, and parking lots.		Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)
DMA1:BMP1	UNDERGROUND INFILTRATION TANK	CONCEPTUAL GRADING PLAN
DMA2:BMP2	UNDERGROUND INFILTRATION TANK	CONCEPTUAL GRADING PLAN

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

Applicant is required to state the intended responsible party for BMP Operation, Maintenance and Funding at the Preliminary WQMP phase. The remaining requirements as outlined above are required for Final WQMP only.

The Copermittee with jurisdiction over the Project site will periodically verify that BMPs on your Project are maintained and continue to operate as designed. To make this possible, the Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement maintenance of BMPs in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized Operations and Maintenance or inspections but will require typical landscape maintenance as noted in Chapter 5, in the SMR WQMP. Include a brief description of typical landscape maintenance for these areas.

The Copermittee with jurisdiction over the Project site will also require that you prepare and submit a detailed BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a BMP Operation and Maintenance Plan are in Chapter 5 of the SMR WQMP.

Maintenance Mechanism: Property Owner

Will the proposed BMPs be maintained by a Homeowners' Association (HOA) or Property Owners Association (POA)?

☒ Y ☐ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9, **see Appendix 9 for additional instructions.** Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

VALLARTA MARKET PLACE SHOPPING CENTER PROJECT

NOISE STUDY

Prepared for:

City of Perris Planning Division
135 North D Street
Perris, CA 92570

Prepared by:

BPG
BIRDSEYE
PLANNING GROUP

October 2024

VALLARTA MARKET PLACE SHOPPING CENTER PROJECT PERRIS, CALIFORNIA

Noise Study

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VALLARTA MARKET PLACE SHOPPING CENTER PROJECT
PERRIS, CALIFORNIA
NOISE STUDY

This report is an analysis of the potential noise impacts associated with the proposed Vallarta Market Place Shopping Center Project in the City of Perris, California. This report has been prepared by Birdseye Planning Group (BPG) under contract to the applicant, to support preparation of the environmental documentation pursuant to the California Environmental Quality Act (CEQA). This study analyzes the potential for temporary air quality and greenhouse gas impacts associated with construction activity and long-term impacts associated with operation of the proposed project.

PROJECT DESCRIPTION

The Project site is located at the southeast corner of Placentia Avenue and North Perris Boulevard and is comprised of approximately 10.55 acres. It is located approximately 0.9 miles east of Interstate 215 (I-215), approximately 8.3 miles south of State Route (SR-) 60 and approximately 1.3 miles south of March Air Reserve Base/Inland Port Airport (MARB/IPA).

With approval of a Conditional Use Permit and Design Plan Review, the Vallarta Market Place Community Shopping Center (Project) project would construct and operate a total of eight new commercial/retail buildings on a 10.55-acre site located at the southeast corner of Placentia Avenue and North Perris Boulevard. The site is located approximately 0.9 miles east of Interstate 215 (I-215), approximately 8.3 miles south of State Route (SR-) 60 and approximately 1.3 miles south of March Air Reserve Base/Inland Port Airport (MARB/IPA). The project site is vacant, disturbed agricultural land and located within Planning Area 5, designated Community Commercial in the Perris General Plan and zoned Community Commercial. The following describes each of the three project components and addresses on-site improvements that would be required to accommodate the proposed uses. The site location is shown in Figure 1 and the proposed site plan is shown in Figure 2.

Vallarta Supermarket. The Project applicant would construct and operate a new 59,371 square-foot grocery store/supermarket along the eastern portion of the site. One delivery dock would be located at the rear of the building (east side). Pursuant to Section 5.106.5.5.1 of the 2022 California Green Building Standards (CALGreen) Code, raceways, busways, and additional electrical capacity for transformers, service panels, or subpanels would be provided to facilitate the future installation of electric vehicle supply equipment for medium- and heavy-duty electric delivery trucks

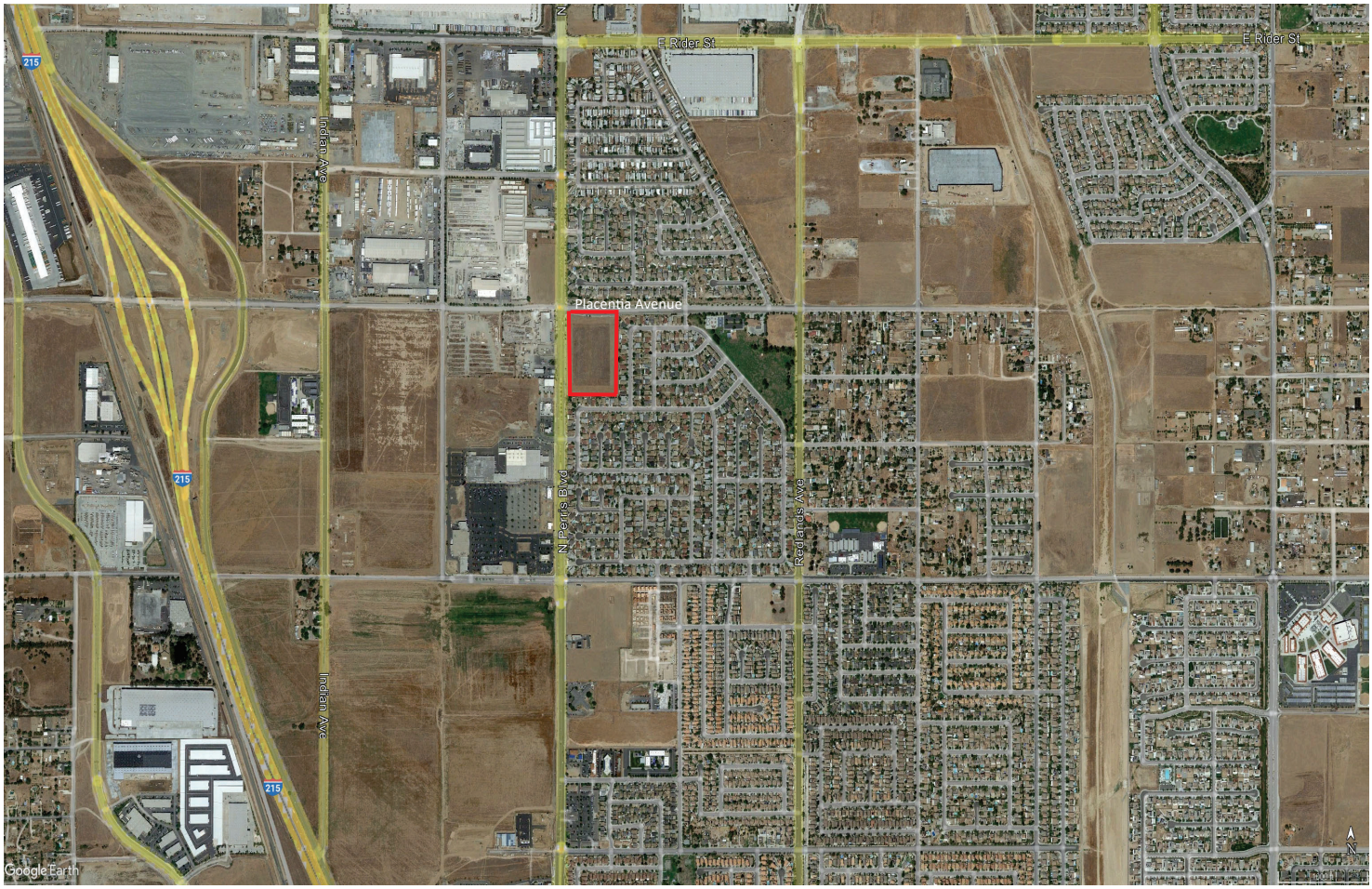

Figure 1—Site Map - **Project Site**

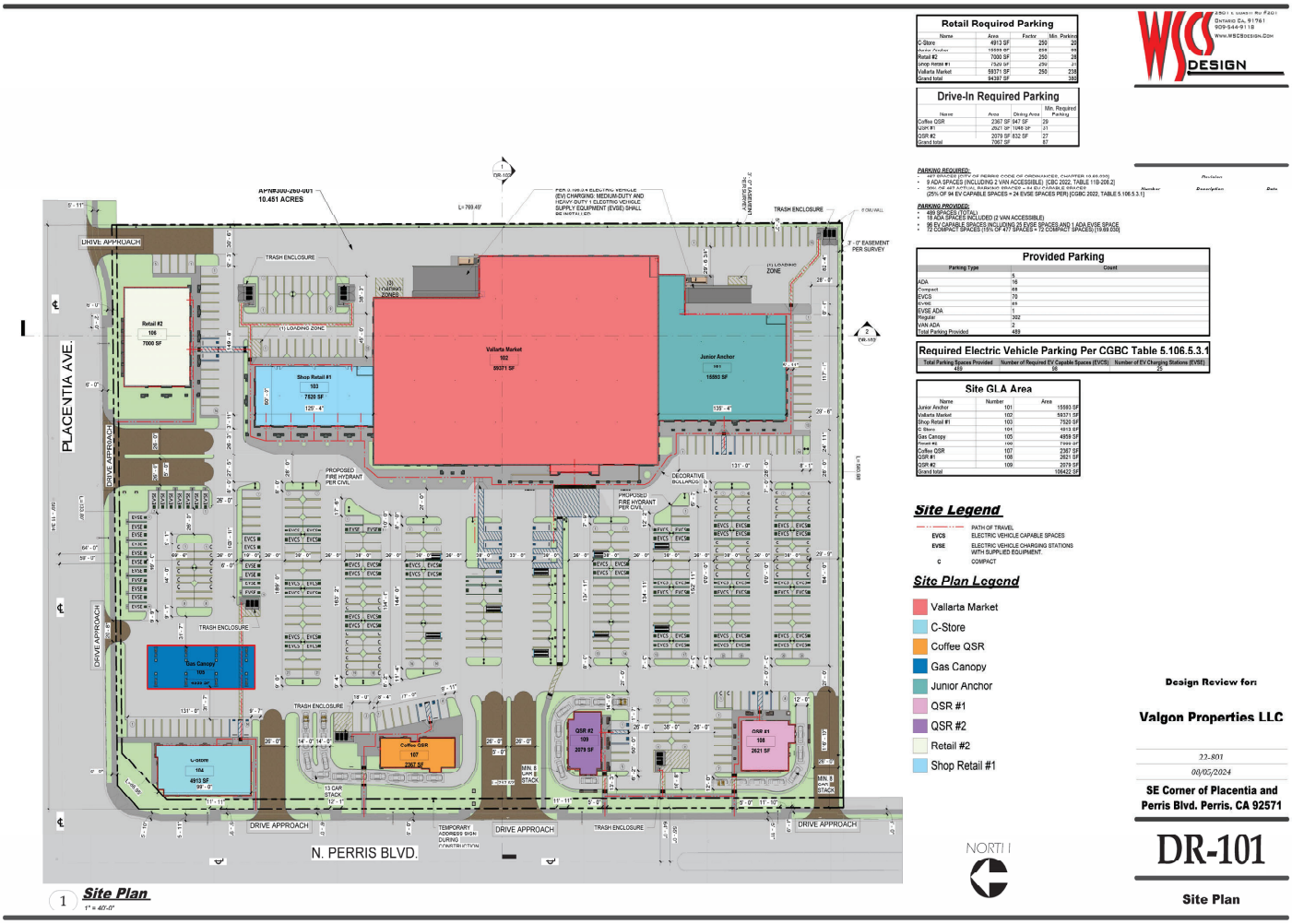

Figure 2— Site Plan

Junior Anchor Building. A 15,593-square-foot retail building would abut the supermarket building to the south. This would be a single-story building with parking and delivery provided at the rear of the building (east side).

Convenience Store/Fueling Station. A 4,913-square-foot convenience store and fueling station would be located at the northwest corner of the site. A total of 8 fueling positions and 16 pumps would be constructed. A total of 14 parking spaces would be located proximal to the convenience store to provide employee, customer and vendor parking.

Coffee Quick Service Restaurant . A 2,367-square-foot quick service restaurant (QSR) dine-in/drive-thru coffee shop building would be constructed adjacent to and south of the convenience store buildings. The drive-thru menu board and pick-up window would be located along the west side of the building facing North Perris Boulevard. Eight parking spaces for QSR Building 1 would be on the east side of building.

Quick Service Restaurant Building 2. A 2,079-square-foot QSR building would be constructed along the western side boundary, south of the Coffee QSR building. The drive-thru menu board and pick-up window would be located along the west side of the building facing North Perris Boulevard. A total of five parking spaces and one accessible space would be provided in front (east side) of the building. The remainder of parking would be provided in the adjacent parking lot.

Quick Service Restaurant Building 1. A 2,621 square-foot QSR building would be constructed along the western side boundary at the southwest corner of the site, south of the QSR building 1 The drive-thru menu board and pick-up window would be located on the south side of the building. A total of eight parking spaces and two accessible spaces would be provided on the east side of the building. A total of seven spaces would be provided on the north side of the building. The remainder of parking would be provided in the adjacent parking lot.

Retail Building 1. A 7,520-square-foot retail building would abut the supermarket building to the north. This would be a single-story building with parking and delivery provided at the rear of the building (east side).

Retail Building 2.A 7,000 square foot retail building would located near the northeast corner of the site, north of the supermarket building. This would be a single-story building with parking and delivery provided at the front (south side) and east side of the building.

Site Access. A total of six access driveways would be constructed – three along Placentia Avenue and three along Perris Boulevard. One driveway along Placentia Avenue and one driveway along Perris Boulevard would be two -lane ingress/egress access. Two additional driveways along Placentia Avenue and two driveways along Perris Boulevard would provide

single-lane access. Delivery vehicles for the grocery store and retail buildings would use the driveways at the northeast and southwest corners of the site.

A total of 489 parking spaces are proposed. The total would include 18 accessible spaces. Pursuant to Section 5.106.5.3.1 of the 2022 CALGreen Code, at least 70 electric vehicle (EV) capable parking spaces would be provided while at least 26 of these spaces, including one ADA space would provide EV chargers at the time that the Project begins operations. More chargers would be added in the future based on demand.

Operating Hours. The proposed supermarket would operate between the hours of 7:00 a.m. and 10:00 p.m. during which time, all daily deliveries would occur. No deliveries would occur outside of business hours. The retail stores are expected to operate during normal daytime/evening business hours. No quick service restaurant tenants have been identified at this time so the operating hours are unknown. It is assumed that the quick service restaurants would not operate 24-hours per day. The convenience store and fueling station could operate 24 hours per day.

Construction Characteristics

Construction is expected to begin in mid-2025 and be completed by late 2026 (approximately 18 months). The project is likely to be constructed in multiple phases based on market demand; however, for the purpose of this evaluation, it is assumed that all constructed would occur during one phase. Construction activity is regulated by the City's Municipal Code, Section 7.34.060, which allows construction activities during daytime hours (between the hours of 7:00 am and 7:00 pm), Monday through Saturday, except for legal holidays. Construction equipment is expected to operate on the Project site up to eight hours per day during the allowed days and time period; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m. and construction equipment is not in continual use. Rather each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Municipal Code, the applicant would be required to obtain authorization from the City of Perris. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, nighttime work would typically occur between the approximate hours of 2:00 am and 8:00 am. Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction of the Project would require common construction equipment.

SETTING

Overview of Sound Measurement

Noise level (or volume/loudness) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).
Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level would be half as loud and influence the character of ambient noise without influencing the overall sound level. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations. Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (i.e., industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units and office buildings construction to California Energy Code standards is generally 30 dBA or more (FTA 2018).

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound pressure level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest RMS (root mean squared) sound pressure level within the measuring period, and Lmin is the lowest RMS sound pressure level within the measuring period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 p.m. to 7 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7 p.m. to 10 p.m. and a 10 dBA penalty for noise occurring from 10 p.m. to 7 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than 1 dB. Table 1 shows sounds levels of typical noise sources in Leq.

Table 1. Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at Given Distance)	Noise Environment	A-Weighted Sound Level (Decibels)	Human Judgment of Noise Loudness (Relative to Reference Loudness of 70 Decibels*)
Military Jet Takeoff with Afterburner (50 ft)	Carrier Flight Deck	140	128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)		120	32 times as loud **Threshold of Pain**
Pile Driver (50 ft)	Rock Music Concert Inside Subway Station (New York)	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Gas Lawn Mower (3 ft)		100	8 times as loud **Very Loud**
Food Blender (3 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck (150 ft)	Boiler Room Printing Press Plant	90	4 times as loud
Garbage Disposal (3 ft)	Noisy Urban Daytime	80	2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (10 ft)	Commercial Areas	70	Reference Loudness **Moderately Loud**
Normal Speech (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	½ as loud
Light Traffic (100 ft)	Large Business Office Quiet Urban Daytime	50	¼ as loud

Bird Calls (distant)	Quiet Urban Nighttime	40	1/8 as loud **Quiet**
Soft Whisper (5 ft)	Library and Bedroom at Night Quiet Rural Nighttime	30	1/16 as loud
	Broadcast and Recording Studio	20	1/32 as loud **Just Audible**
		0	1/64 as loud **Threshold of Hearing**

Source: Compiled by dBF Associates, Inc., 2016

Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Urban areas contain a variety of land use and development types that are noise sensitive including residences, schools, churches, hospitals and convalescent care facilities. Nearby sensitive receptors are single-family residences located adjacent to and east and south of the site and north of the site on the north side of Placentia Avenue.

Project Site Setting

The project area is urbanizing and located along the east side of North Perris Boulevard and south of Placentia Avenue. As stated, single-family residences are located east, north and south of the site. The most common and primary sources of noise in the project site vicinity are motor vehicles (e.g., automobiles and trucks) operating on Placentia Avenue and North Perris Boulevard. Motor vehicle noise, because of the high number of individual events, can create a sustained noise level. To gather data on the general noise environment at the project site, two weekday morning 15-minute noise measurements were taken on the site on August 22, 2023 using an ANSI Type II integrating sound level meter. The predominant noise source was traffic. The temperature during the monitoring episode was approximately 85 degrees Fahrenheit with wind at 0-5 mph from the northwest.

Monitoring Site 1 is located at the northeast corner of the site adjacent to the single-family residences on the west side of Genuine Risk Street approximately 60 feet south of the Placentia Avenue centerline. During monitoring, approximately 172 cars/light trucks, three medium trucks (six tires/two axles) and zero heavy trucks (all vehicles with three or more axles) passed the site. Monitoring Site 2 is located on the southwest corner of the site, east of North Perris Boulevard and north of the single-family residences located on the north side of Chant Street. During monitoring, approximately 327 cars/light trucks, nine medium trucks and zero heavy trucks passed the site. The monitoring location is shown in Figure 3. As shown in Table 2, the measured Leq was 63.1 dBA at Site 1 and 63.4 dBA at Site 2. The monitoring data sheet is provided in Appendix A.

Figure 3—Monitoring Locations - **Project Site**

Table 2
Noise Monitoring Results

Measurement Location	Primary Noise Source	Sample Time	Leq (dBA)
Site 1. Northeast corner of site south of Placentia Avenue and west of the residences located along Genuine Risk Street.	Traffic	August 22, 2023 2:00 -2:15 p.m.	63.1
Site 2. Southwest corner of the site adjacent to North Perris Boulevard and north of residences located along Chant Street.	Traffic	August 22, 2023 2:30–2:45 p.m.	63.4

Source: Field visit using ANSI Type II Integrating sound level meter.

Noise Standards and Policies

City of Perris General Plan Noise Element

In 1976, the California Department of Health, State Office of Noise Control published a recommended noise/land use compatibility matrix which many jurisdictions have adopted as a standard in their general plan noise elements. The California State Office of Planning and Research 2017 updates to the General Plan Guidelines, Appendix D Noise Element Guidelines, Table 1, shows that exterior noise levels up to 60 dBA (CNEL or Ldn) are normally compatible for low density single-family residences, duplexes and mobile homes. The term "normally acceptable" refers to compatibility with the ambient outdoor noise environment for the land use type referenced such that interior noise levels are adequately attenuated without implementation of specific noise reduction measures. Whereas, "conditionally acceptable" refers to exterior ambient conditions that require the use of construction materials and methods or mitigation to achieve interior noise standards for the specified land use type.

Based on these metrics, the City of Perris General Plan Noise Element (City 2016) establishes noise compatibility guidelines for land uses and provides policies for new commercial and industrial facilities. Noise Element Policy V.A states that new large-scale commercial or industrial facilities located within 160 feet of sensitive land uses shall mitigate noise impacts to attain an acceptable level. This policy is enforced through Implementation Measure V.A.1 which requires that an acoustical impact analysis be prepared to ensure that noise levels generated by the commercial or industrial facilities do not exceed 60 CNEL for those residential land uses within 160 feet of the project. Exhibit N-1 of the City General Plan Noise Element is replicated in Table 3. Consistent with state guidelines, noise levels at single-family residences and mobile homes, are normally acceptable up to 60 dBA CNEL and conditionally acceptable up to 70 dBA CNEL.

Table 3
Land Use Compatibility for Community Noise Environments

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-Family, Duplex, Mobile Homes	50-60	60-65	65-75	75-85
Multifamily	50-60	60-65	65-75	75-85
Transient Lodging – Hotels, Motels	50-60	60-70	70-80	80-85
School, Libraries, Churches, Hospitals, Nursing Homes	50-60	60-70	70-80	80-85
Auditoriums, Concert Halls, Amphitheaters	-	50-65	-	65-85
Sports Arena, Outdoor Spectator Sports	-	50-70	-	70-85
Playgrounds, Neighborhood Parks	50-70	-	70-75	75-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	-	70-80	80-85
Office Building, Business and Professional, Commercial	50-65	65-75	75-85	-
Industrial, Manufacturing, Utilities, Agriculture	50-70	70-80	80-85	-

[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning would normally suffice.
[c] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

Note: Noise levels are provided in A-weighted decibels, CNEL.
Source: Office of Noise Control, California Department of Health

City of Perris Municipal Code

Section 7.34.040 of the Perris Municipal Code limits exterior noise levels at nearby properties to a maximum noise level (Lmax) of 80 dBA Lmax from 7:01 a.m. to 10:00 p.m. and 60 dBA Lmax from 10:01 p.m. to 7:00 a.m. Section 7.34.060 of the City's Municipal Code Chapter states that is unlawful for any person between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Construction activity shall not exceed 80 dBA Lmax in residential zones.

In addition, the Noise Element addresses nuisance noise and states that it should be unlawful for any person to make or continue any loud, unnecessary noise that causes annoyance to any reasonable person of normal sensitivity.

Vibration Standards and Guidelines

Vibration is a unique form of noise as the energy is transmitted through buildings, structures and the ground whereas audible noise energy is transmitted through the air. Thus, vibration is generally felt rather than heard. The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second. Vibration impacts to buildings are generally discussed in terms of PPV which describes particle movement over time (in terms of physical displacement of mass). Vibration can impact people, structures, and sensitive equipment Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and other high impact demolition and excavation-related activities. Grading also has the potential to cause short-term vibration impacts if large bulldozers, loaded trucks, or other heavy equipment operate within proximity to sensitive land uses. Use of the PPV descriptor is common when addressing potential impacts to structures. The maximum vibration level standard used by the California Department of Transportation (Caltrans) for the prevention of structural damage to typical residential buildings is 0.2 ips PPV (Caltrans 2020).

The vibration velocity level (VdB) is used to describe potential impacts to people. The threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (Federal Transit Administration, 2018).

Construction activities referenced above that would generate significant vibration levels are not proposed (i.e., blasting, pile driving, jackhammering). However, to provide information for use in completing the CEQA evaluation, construction-related vibration impacts are evaluated using both PPV and associated VdB criteria. Table 4 shows PPV, approximate VdB and related human reaction and effects on buildings.

Table 4
Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Traffic Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effects on Buildings
0.006–0.019	64–74	Range of threshold of perception.	Vibrations unlikely to cause damage of any type.
0.08	87	Vibrations readily perceptible.	Recommended upper level to which ruins and ancient monuments should be subjected.
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities.	Virtually no risk of architectural damage to normal buildings.
0.2	94	Vibrations may begin to annoy people in buildings.	Threshold at which there is a risk of architectural

			damage to normal dwellings.
0.4–0.6	98-104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.	Architectural damage and possibly minor structural damage.

Source: Caltrans, April 2020

IMPACT ANALYSIS

Significance Thresholds and Methodology

The following significance criteria are based on Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (14 CCR 15000 et seq.) and will be used to determine the significance of potential noise impacts. Impacts to noise would be significant if the proposed project would result in:

(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Generation of excessive groundborne vibration or groundborne noise levels; or

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

Construction noise estimates are based upon noise levels reported by the Federal Transit Administration, Office of Planning and Environment, and the distance to nearby sensitive receptors. Reference noise levels from that document were used to estimate noise levels at nearby sensitive receptors based on the applicable noise attenuation rate of 6 dB per doubling of distance (free field propagation of sound attenuation).

The proposed project would be a new use; thus, noise levels associated with existing and future traffic were based on the difference in trip volumes between existing conditions and the proposed use. A doubling of traffic volumes would be required to cause a noticeable increase (3 dBA) in traffic noise. Measured baseline conditions do not exceed 65 dBA CNEL, the normally acceptable exterior sound level for residential properties referenced in the General Plan Noise Element. Thus, with project sound levels were calculated to determine whether project traffic,

when added to baseline traffic, would exceed 65 dBA or increase (+3 dBA or greater) the Leq over baseline conditions for receivers adjacent to the project site.

As noted, a noise increase greater than 3 dBA is readily perceptible to the average human ear; and thus, is the level considered a substantial noise increase related to traffic operations. For the purpose of this evaluation, the CNEL is used for traffic noise as it provides a conservative estimate of potential noise levels.

a. ***Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Temporary Construction Noise

The primary source of noise during construction activities would be comprised of heavy machinery used during site preparation (i.e., clearing/grubbing), grading and clearing the site, as well as equipment used during building construction and paving. Table 5 shows the typical noise levels associated with heavy construction equipment. As shown in Table 5, average noise levels associated with the use of heavy equipment at construction sites can range from 80 to 85 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction (FTA 2018). Project construction would occur over the entire project site. Construction activities will vary in distance from the nearest sensitive properties which are the single-family residences along Genuine Risk Street that back up to the eastern property line and along Chant Street that back up to the southern property line. While the distance between the property line and closest residences vary, the distance is approximatety 25 feet from the eastern and southern property lines.

Table 5
Typical Maximum (Lmax) Construction Equipment Noise Levels

Equipment Onsite	Typical Maximum Level (dBA) 25 Feet from the Source	Typical Maximum Level (dBA) 50 Feet from the Source	Typical Maximum Level (dBA) 100 Feet from the Source
Air Compressor	86	80	74
Backhoe	86	80	74
Bobcat Tractor	86	80	74
Concrete Mixer	91	85	79
Loader	86	80	74
Bulldozer	91	85	79
Jack Hammer	94	88	82
Pavement Roller	91	85	79
Street Sweeper	88	82	76

Table 5
Typical Maximum (Lmax) Construction Equipment Noise Levels

Equipment Onsite	Typical Maximum Level (dBA) 25 Feet from the Source	Typical Maximum Level (dBA) 50 Feet from the Source	Typical Maximum Level (dBA) 100 Feet from the Source
Man Lift	81	75	69
Dump Truck	90	84	78
Mobile Crane	89	83	77
Excavator/Scraper	91	85	79

Source: FTA Noise and Vibration Impact Assessment Manual (September 2018), Table 7-1.
Noise levels are based on actual maximum measured noise levels at 50 feet (Lmax).
Noise levels are based on a noise attenuation rate of 6 dBA per doubling of distance.

Construction noise across the entire site would vary throughout the workday and by phase (i.e., site preparation, grading, building construction, paving and architectural coating). As stated, the highest sustained noise levels would be associated with site preparation and grading because ongoing use of large earth moving and paving equipment would occur during these phases. Because of the site size, heavy equipment operation throughout the property can be accommodated simultaneously.

For the purpose of this evaluation, maximum construction noise was estimated with equipment operating at 25 feet from the nearest receiver west of the property line. for the site preparation and grading phase. This is conservative as equipment can operate simulateneously throughout the site; however, equipment cannot operate at the same location at the same time. Typically, equipment is staggered across the site. Site preparation and grading/excavation would utilize a bulldozer, backhoe and loader. For building construction, noise from operation of a crane, manlift, backhoe and tractor/loader were used. Paving equipment noise was calculated based on noise levels from operation of a roller and paver at 25 and 50 feet from any specific receiver. Use of an air compressor for application of architectural coating phases was modeled at 50 feet, the approximate distance between the closest building and the southern property line. Equipment and materials would be staged proximal to the buildings to use the structures as a noise barrier to the extent feasible. However, to present a more conservative analysis, the noise levels identified in this report do not include any of the noise reductions associated with the features discussed in this paragraph.

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) data were used to estimate construction noise levels at the nearest occupied noise-sensitive land use referenced above. Although the model was funded by the Federal Highway Administration, the RCNM data is used for non-roadway projects because the same types of construction equipment used for roadway projects are used for other types of construction. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each, the duty cycle for each piece of equipment (e.g., percentage of hours the

equipment typically works per day), and the distance from the noise-sensitive receiver. As noted, the distances were varied across the site as equipment cannot work simultaneously in the same location from a given point. No topographical or structural shielding was assumed nor did the calculations account for the fact that not all equipment would operate at the same time. The estimated hourly Leq by phase are shown below in Table 6. These are the most conservative noise levels that could occur proximal to the neighboring properties.

As shown in Table 6, the highest hourly noise levels are projected to be 87.7 dBA Lmax at 25 feet during site preparation and grading and 88.0 dBA 20 feet during paving. Maximum building construction noise levels are conservatively estimated to be 79.0 dBA Lmax at 50 feet from the property line. As stated, this does not consider screening by the buildings as they are constructed. The Lmax associated with the application of architectural coating would be approximately and 77.7 dBA Lmax (at 50 feet), respectively.

Table 6
Estimated Maximum Construction Noise Levels

Phase	Lmax Noise Levels
Site Preparation (dozer, back-hoe, front-end loader)	87.7
Grading (dozer, backhoe and front-loader)	87.7
Building Construction (crane, manlift, backhoe and front-end loader)	79.0
Paving (paver and roller)	88.0
Architectural Coating (air compressor)	77.7

Note: Site Prearation,Grading and Paving assumes equipment would operate at 25 feet from the nearest receiver to approximate worst case conditions.

On a typical workday, heavy equipment will be operating sporadically throughout the project site and more frequently away from the edges of the site as the site preparation and grading phases are completed. However, nearby off-site residences would be exposed to elevated noise levels associated with construction. As stated, the City of Perris Municipal Code restricts construction to the weekday hours between 7:00 am and 7:00 pm , with the exception of some holidays. Construction is not allowed on Sundays or applicable holidays. The Project would comply with the Municipal Code restrictions on construction hours. Further, construction noise levels would be relatively short term and terminate as each construction phase is completed. However, as stated, noise levels could exceed the 80 dBA Lmax standard at the closest sensitive properties. Implementation of project specific Mitigation Measures N-1, N-2 and N-3 would reduce potential impacts to less than **less than significant**.

N-1: **Install Temporary Noise Barrier.** A noise barrier shall be erected along the southern and eastern site boundary during construction. A minimum 8-foot-high barrier shall be maintained throughout site preparation and grading activities to reduce noise at adjacent

receivers to the south and east. The noise barrier should be constructed of material with a minimum weight of 4 pounds per square foot with no gaps or perforations. Noise barriers may be constructed of 5/8-inch plywood and/or 5/8-inch oriented strand board. Other temporary construction noise barrier systems may be used at the contractors discretion with City of Perris approval.

N-2: Neighbor Notification. Notification shall be provided to residential occupants adjacent to the project site at least 48 hours prior to initiation of construction activities that could result in substantial noise levels at outdoor or indoor living areas. This notification shall include the anticipated hours and duration of construction and a description of noise reduction measures being implemented at the project site. The notification shall include a telephone number for local residents to call and submit complaints associated with construction noise.

N-3: Noise Control Plan. Construction contractors shall develop and implement a noise control plan that includes a noise control monitoring program to avoid construction noise levels exceeding 80 dBA Lmax at the nearest sensitive receivers. The plan may include the following requirements:

- Contractor shall turn off idling equipment.
- Contractor shall perform noisier operation during the times least sensitive to receptors.
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory- recommended mufflers.
- Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or security staff facilities.

Operational Noise Exposure

Operation of the proposed project was evaluated for potential exterior traffic related impacts caused by increased traffic volumes associated with the project caused by traffic. As documented in the project's Trip Generation/VMT Screening Memorandum (August 2023), the proposed project is considered a typical development that would not cause traffic on the existing road network to exceed City established thresholds or affect the distribution of nighttime traffic. All project traffic accessing the site would be concentrated on North Perris Boulevard and Placentia Avenue.

Exterior Traffic Noise. Traffic is the primary noise source that would be generated by operation of the proposed project. As stated, existing noise levels were measured at the project site on August 22, 2023. The highest Leq during the 15-minute monitoring period was 63.4 dBA at the southwest corner of the site along North Perris Boulevard. The existing measured Leq at the

northeast corner of the project site was 61.3 dBA. Noise levels at receiving properties proximal to the site are below 65 dBA, the normally compatible noise level for residences referenced in the General Plan Noise Element policy for exterior noise exposure to transportation related noise at residences and other sensitive properties. As stated, the Noise Element sets 60 dBA CNEL for the outdoor areas and interior noise levels of less than 45 dBA CNEL as the "normally acceptable" level. Noise levels up to 65 dBA CNEL are "conditionally acceptable" when interior noise standards can be met and noise levels are dominated by traffic.

The roadway network adjacent to the project site was modeled using the Federal Highway Administration Traffic Noise Model (TNM) version 2.5 software. The model calculates traffic noise at receiver locations based on traffic volumes, travel speed, mix of vehicle types operating on the roadways (i.e., cars/trucks, medium trucks and heavy trucks) and related factors. The 6-foot high concrete masonry unit (CMU) walls along the eastern and southern property boundaries, along the east side of North Perris Boulevard south and north of the site and along the north side of Placentia Boulevard were included in the calculations. The vehicle mix on North Perris Boulevard and Placentia Avenue is based on vehicle counts during noise monitoring. Hourly average baseline noise levels (Leq) were calculated at representative single-family residences located at the southwest corner of the site along North Perris Boulevard and along Placentia Avenue north of the site to calibrate the noise model without the existing CMU walls. The CMU walls were then added to the model to approximate actual baseline noise conditions at five sensitive properties adjacent to the site. These receivers represent the residences adjacent to the project. These receivers would experience the highest concentration of project-related traffic. The receiver locations are defined as follows and shown in Figure 4.

1. Single-family residence at 2672 20 Grand Street southwest of the site;
2. Single-family residence at 34 Chant Street southwest of the site;
3. Single-family residence at 113 Galileo Lane north of Placentia Avenue;
4. Single-family residence at 145 Galileo Lane north of Placentia Avenue; and
5. Single-family residence at 100 Spectacular Bid Street northeast of the site.

Receivers 1 and 2 represent residences along North Perris Boulevard south of the site. Receivers 3, 4 and 5 represent residences along Placentia Avenue north and east of the site. Noise levels associated with the project were calculated by distributing 1,205 P.M. peak hour project trips generated by the Project into the baseline traffic volumes along North Perris Boulevard and Placentia Avenue. Volumes were concentrated in these areas for the purpose of evaluating worst case noise conditions. The modeling results are shown in Table 7. As shown, the highest modeled increase would occur at Receivers 4 and 5. Project P.M. peak hour volumes would not be high enough to cause a noticeable effect (i.e., +/- 3 dBA) on baseline conditions at any of the receivers modeled. Impacts related to exterior traffic-related noise would be less than significant.

Figure 4—Receiver Locations - **Project Site**

Table 7
Modeled Noise Levels

Receptor	Existing Ldn/CNEL	Cumulative With Project Ldn/CNEL	Decibel Change –	Significant Impact
Receiver 1	57.0	57.8	+0.8	No
Receiver 2	58.2	59.0	+0.8	No
Receiver 3	60.2	61.1	+0.9	No
Receiver 4	58.2	59.4	+1.2	No
Receiver 5	55.8	57.1	+1.3	No

On-Site Truck Movement. Mid-size delivery trucks (i.e., two-axle, six wheel) would move throughout the site servicing the commercial tenants. It is assumed that some heavy trucks (i.e., semi-trucks) would deliver to the supermarket regularly. The heavy trucks would enter the site from the north and travel around to the back of the grocery store and retail buildings to unload. Placentia Avenue is a designated truck route within the City of Perris and Interstate 215 is located approximately one mile to the west. To quantify on-site truck movement noise exposure in terms of the CNEL/Ldn (24-hour average), individual truck movement sound exposure level (SEL) is used. The SEL is a measure of the total energy of a noise event, including consideration of event duration. The SEL is not actually heard, but is a derived value used for the calculation of energy-based noise exposure metrics such as the CNEL/Ldn. The average measured truck event movement SEL is 78.1 decibels (Birdseye Planning Group, 2024/WJVA Acoustics, 2017) which includes noise generated by diesel engines, air brakes and backup warning devices. The number of daily truck trips accessing the loading dock(s) at the rear of the store is assumed to be 18 (Transportation Northwest, August 2010) and that the trips would be evenly distributed over a 24-hour day. The L_{dn} associated with truck movement is quantified using the following equation:

Ldn = *SEL + 10 log Neq – 49.4*

SEL is the average SEL for a heavy truck movement, Neq is the equivalent number of truck movements in a typical 24-hour period determined by adding 10 times the number of nighttime events (10 p.m. - 7 a.m.) to the actual number of daytime events (7 a.m. – 7 p.m.), and 49.4 is a time constant equal to 10 log the number of seconds in the day. Assuming 18 truck events per day, the resulting noise exposure on-site would be approximately 41.2 dBA Ldn (i.e., 24-hour average). The Lmax (78.1 dBA) associated with heavy truck movement would be less than the 80 dBA Lmax daytime standard; however, it would exceed the 60 dBA Lmax nighttime standard.

Drive-Thru Menu Board Speakers. Speaker noise is an intermittent, variable noise source and subject to change with volume settings. Based on field observations, speaker noise is typically screened by the vehicle at the menu board and is audible as a conversational source. Measured sound levels from drive-thru menu boards approximate 53 dBA at approximately 32 feet. As stated, ambient noise levels at the southwest corner of the site is approximately 63.5 dBA and

61.3 dBA at northeast corner. As stated in the Project Description, a total of three quick serve restaurants with drive thru windows are proposed along the western side of the site adjacent to North Perris Boulevard. One would be located near the southwest corner of the site north of the 26-foot wide driveway and adjacent 12-foot wide drive thru lane.

Speakers may be mounted in a variety of different enclosures. Further, buildings, adjacent cars and other cars in proximity all effect the direction and attenuation rate of speaker noise. Speaker noise is also intermittent rather than a constant source. These factors all make the sound more directional and the decay rate less predictable. Based on the planned orientation of the speaker boards, the speaker noise associated with the northerly two quick serve restaurants would project west towards North Perris Boulevard. However, the quick serve restaurant at the southwest corner of the site would project south towards the receivers located adjacent to the southwest corner of the site. The menu board speaker would be approximately 40 feet north of the southern property line. A sound level of 53 dBA at 32 feet would be less than the 80 dBA daytime Lmax standard and 60 dBA nighttime Lmax standard at the southern property line. The existing perimeter wall would provide approximately 5 dBA of additional attenuation. Speaker noise at the residences located south of the site would be 48 dBA Lmax which is less than baseline levels and both the daytime and nighttime standard.

Loading Dock Operation. The reference loading dock activities are intended to describe the typical operational noise activities associated with primarily the supermarket; however, deliveries would occur at all the buildings located on-site. The supermarket loading dock is located on the east side of the building approximately 43 feet west of the property line, proximal to single-family residences located adjacent to and east of the site. Loading docks noise includes trucks maneuvering, air brakes, truck unloading, backup alarms or beepers and truck docking. Truck operation would be comprised of a combination of tractor trailer semi-trucks and two-axle delivery trucks. To describe the supermarket loading dock activities, short-term reference noise level measurements were collected. The reference loading dock activity noise level measurement was taken over a fourteen-minute period and represents multiple noise sources taken from the center of activity generating a reference noise level of 71.2 dBA Lmax at a uniform reference distance of 50 feet.

Typical backup alarms generate a noise level of 109.7 dBA at four feet at a single frequency of one KHz. Backup alarms on trucks are commonly mounted on the back of the truck at a height of 3 feet above the ground. Assuming 18 truck operations daily, using the equation above and an SEL/Lmax of 71.2 dBA,the CNEL/Ldn for general activity within the loading area would be 39.8 dBA CNEL. A Lmax of 71.2 dBA would not noticeably attenuate over the distance between the supermarket building and closest residences to the east; however, the existing 6-foot high CMU wall would provide approximately 5 dBA of attenuation. The loading dock activity would would not exceed the 80 dBA daytime Lmax standard; however, it would exceed the 60 dBA Lmax nighttime standard. Without mitigation, the impact would be considered significant.

Roof-Top Air Conditioning Units. The Project would use commercial-sized HVAC units located on the rooftop of the buildings behind shrouds and/or parapets. Specific planning data for the future HVAC systems is not available at this stage of project design. To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements from Lennox SCA120 series 10-ton model packaged air conditioning unit were used. At a uniform reference distance of 50 feet, the roof-top air conditioning units generate a reference noise level of 57.7 dBA Lmax. The parapets would provide 5-10 dBA of attenuation which would reduce HVAC noise to approximately 52.7 dBA. If located proximal to the center of the buildings, noise levels from each unit would attenuate to below existing background noise levels approximately 50 feet from the source. HVAC systems are not anticipated to be audible at off-site receivers.

Combined Sources. The combined noise from operation of the HVAC units would attenuate to approximately 52.7 dBA Lmax at 50 feet, the approximate distance between the source and closest residential receivers to the south. This would meet both the 80 dBA Lmax daytime and 60 dBA Lmax nighttime standard along the eastern and southern property lines where residences are located adjacent to the site. The closest menu board speaker would be approximately 40 feet north of the southern property line. A sound level of 53 dBA at 32 feet would be less than the 80 dBA daytime Lmax standard and 60 dBA nighttime Lmax standard at the southern property line. Truck movement would generate an Lmax of approximately 78.1 dBA Lmax and a 24-hour average of 41.2 dBA. The 24-hour average is below the residential compatibility standard identified in the General Plan Noise Element as referenced above. While truck movement activities would be below the 80 dBA Lmax daytime standard, truck movement could exceed the 60 dBA Lmax nighttime standard during individual events. Similarly, operation of the loading dock behind the supermarket would exceed the 60 dBA nighttime standard. To avoid exceeding the nighttime standard, it is recommended that mitigation measure N-4 be implemented.

> **N-4: Truck Deliveries.** All truck deliveries requiring use of the loading dock at the rear of the supermarket building shall be conditioned to occur between 7:00 a.m. and 10:00 p.m.

With implementation of project-specific Mitigation Measure N-4, nighttime noise levels at neighboring receivers would be less than significant.

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

Temporary Construction-Related Vibration

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. As stated, 0.2 PPV (94 VdB) is the vibration level

at which damage to residential structures can occur and is considered annoying to most people exposed to the vibration energy (FTA 2018).

Heavy impact construction methods that could generate enough vibration to damage buildings proximal to the project site (i.e., pile driving, rock breaking, drilling, blasting) would not be required for the project. However, both PPV and the related VdB are used to address construction vibration and related effects to structurees and people residing in adjacent residences. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. The PPV and accompanying VdB level associated with common construction equipment is shown in Table 8.

Construction activity on the project site would be temporary and vibration events would be transitory occuring only during equipment pass bys. Using vibration levels associated with a large bulldozer the piece of equipment with the highest vibration level, as a worst case scenario, typical groundborne vibration could reach 87 VdB at 25 feet, the distance between the eastern and southern property boundary and nearest receivers. Vibration at this level can cause annoyance for brief periods of time during pass by events. Sustained equipment operation is not expected to occur proximal to this location nor would the PPV reach levels that may cause structural damage to the residential building.

As stated, vibration levels in excess of 75 VdB may be perceptible; thus, vibration may be perceptible at the nearest residences periodically during equipment pass by events. While there are no specific standards for use in quantifying excessive vibration levels, the PPV would not be high enough to damage buildings (i.e., 0.2 PPV) nor would construction activities generate vibration levels high enough to annoy people (i.e., 94 dBA). Thus, temporary vibration impacts would be **less than significant**.

Operation-Related Vibration

The proposed project would provide eight new commercial buildings. These uses do not generate vibration; thus, no vibration impacts are anticipated to occur with operation of the project.

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

The Project site is located approximately 3.0 miles south of MARB/IPA and is located within the MARB/IPA Airport Influence Area Boundary, and the 2018 U.S. Air Force Final Air Installations Compatible Use Zone (AICUZ) Study. The project site is located within the 65 dBA CNEL noise contours shown in Exhibit MA-4 of the March Air Reserve Base/Inland Port Airport Land Use

Compatibility Plan (November 2014). A CNEL of up to 65 dBA is normally compatible for commercial uses as shown in Table 3. Noise impacts associated with aircraft operations at the March ARB/IPA would be less than significant.

Table 8
Vibration Source Levels for Construction Equipment

	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, September 2018.		

The Perris Valley Airport-L65 is located approximately 3.4 miles south of the Project site. According to the Airport Land Use Compatibility Plan (ALUCP) for the Perris Valley Airport, the Project site is not located within the Airport Influence Area Boundary or area affected by aircraft noise as per Exhibit PV-3 (Riverside County Airport Land Use Commission 2011). The proposed commercial uses do not include any uses that would be hazards to flight and would not be affected by aircraft noise. Therefore, hazards associated with aircraft operations would be less than significant and no Project-specific mitigation would be required.

CONCLUSION

The proposed project was evaluated for potential construction and operational noise impacts. As discussed herein, potential temporary construction noise impacts would be reduced to less than significant with implementation of Mitigation Measure N-1 N-2 and N-3. Operational impacts related to nighttime on-site truck movement would be reduced to less than significant with implementation of project-specific Mitigation Measure N-4. No impact would occur with operation of the HVAC systems.

Temporary impacts associated with construction vibration would be less than significant. The proposed commercial uses do not generate vibration; thus, no vibration impacts are anticipated to occur with operation of the project.

With respect to airport operations, the Project site is located within the 65 dBA noise contour for March ARB/IPA ALUP; however, commercial uses are normally compatible with this noise level. Thus, the project employees would not be exposed to excessive noise levels. Impacts would be less than significant.

REFERENCES

Birdseye Planning Group, LLC, Distribution Park Commercial and Industrial Project Noise Study, Perris, CA. April 2024.

California State Office of Planning and Research, Updates to the General Plan Guidelines, Appendix D Noise Element Guidelines, 2017

California Department of Transportation, Noise and Vibration Guidance Manual, April 2020

City of Perris General Plan Noise Element, 2016

City of Perris Municipal Code Section 7.34.040 – General Sound Level Limits

City of Perris Municipal Code Section 7.34.060 – Construction Noise

dBF & Associates, Inc., Reference Noise Level Compilation Table, 2016.

Federal Highway Administration, Traffic Noise Model Version 2.5, 2004.

Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*. September 2018.

Mizuta Traffic Consulting, Inc., *Trip Generation and Vehicle Miles Traveled (VMT) Screening Analysis*, October 2024.

Appendix A

Monitoring Data Sheet and Modeling Results

FIELD NOISE MEASUREMENT DATA

Project Name: Placentia Ave/Perris Blvd, Perris, CA Page 1 of 1
Project #: Day / Date: Tuesday, 8/22/2023 My Name.

Sound Level Meter	Calibrator	Weather Meter
Model #: Piccolo II	Model #	Model # Serial #
Serial #	Serial #	
Weighting: (A) C / Flat	Pre-Test: ____ dBA SPL	Terrain: Hard / Soft / Mixed
Response: (Slow) / Fast / Impl	Post-Test: ____ dBA SPL	Topo: (Flat) / Hilly (describe)
Windscreen: (Yes) / No		Wind: (Steady) / Gusty

ID	Time Start	Time Stop	Leq	Lmin	Lmax	L10	L50	L90	Wind Spd/ Dir (mph)	Temp (°F)	RH (%)	Bar Psr (in Hg)	Cloud Cover (%)
98	1:58p	2:13p	73.8	62.6	90.1				4/15 NW	85°			0
100	2:27p	2:42p	76.5	61.7	96.3				4/15 NW	85°			0

	Placentia	Perris
Roadway Name	Placentia	Perris
Speed (post/obs)	40	45
Number of Lanes	4/1	4/1
Width (pave/row)		
1- or 2- way	2	2
Grade		
Bus Stops	0	0
Stoplights	at Perris	at Placentia
Street Parking	No	No
Automobiles	327	172
Medium Trucks	9	3
Heavy Trucks	0	0

Location(s) / GPS Reading(s):

Placentia Perris

Other Noise Sources: distant (aircraft) / (roadway traffic) trains / landscaping / rustling leaves / children playing / dogs barking / birds vocalizing

Notes and Sketches on Reverse

North Perris Boulevard

Start Date	8/22/2023
Start Time	2:27:08 PM
End Time	2:42:07 PM
Duration	00:14:59
Meas Mode	Single
Input Range	Low
Input Type	Mic
SPL Time Weight	Fast
LN% Freq Weight	dBA
Overload	No
UnderRange	No
Sensitivity	18.44mV/Pa

LZeq	76.5
LCeq	73.1
LAeq	63.4
LZFmax	96.3
LCFmax	90.5
LAFmax	75.4
LZFmin	61.7
LCFmin	59.0
LAFmin	45.0
LZE	106.0
LCE	102.6
LAE	92.9
LZpk	104.8
LCpk	98.4
LApk	93.0
LAF1%	72.7
LAF2%	72.1
LAF5%	70.6
LAF8%	69.4
LAF10%	68.6
LAF25%	62.7
LAF50%	57.0
LAF90%	48.5
LAF95%	47.6
LAF99%	46.6

Site 1 - Placentia Avenue

Start Date	8/22/2023
Start Time	1:58:22 PM
End Time	2:13:21 PM
Duration	00:14:59
Meas Mode	Single
Input Range	Low
Input Type	Mic
SPL Time Weight	Fast
LN% Freq Weight	dBA
Overload	No
UnderRange	No
Sensitivity	18.44mV/Pa

LZeq	73.8
LCeq	72.3
LAeq	63.1
LZFmax	90.1
LCFmax	89.7
LAFmax	77.2
LZFmin	62.6
LCFmin	60.5
LAFmin	46.0
LZE	103.3
LCE	101.8
LAE	92.6
LZpk	98.6
LCpk	97.2
LApk	88.8
LAF1%	70.3
LAF2%	69.4
LAF5%	68.1
LAF8%	67.4
LAF10%	67.0
LAF25%	64.4
LAF50%	60.4
LAF90%	50.7
LAF95%	48.6
LAF99%	47.2

RESULTS: SOUND LEVELS **<Project Name?>**

<Organization?> **27 September 2023**
<Analysis By?> **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **<Project Name?>**
RUN: **Existing Conditions**
BARRIER DESIGN: **INPUT HEIGHTS**
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS: **68 deg F, 50% RH**

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0.0	56.0	66	56.0	10	----	56.0	0.0	8	-8.0
Receiver2	2	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
Receiver3	3	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
Receiver4	4	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
Receiver5	5	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS **<Project Name?>**

<Organization?> **27 September 2023**
<Analysis By?> **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **<Project Name?>**
RUN: **With Project**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
Receiver2	2	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
Receiver3	3	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
Receiver4	4	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
Receiver5	5	1	0.0	56.1	66	56.1	10	----	56.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Technical Memorandum

To: Ryan Birdseye, Birdseye Planning Group

From: Marc Mizuta, Mizuta Traffic Consulting

Date: October 2, 2024

Re: Trip Generation and VMT Screening Analysis for the Proposed Vallarta Market Place Community Shopping Center Project

---

Mizuta Traffic Consulting (MTC) has prepared this memo summarizing the estimated trip generation for the Vallarta Market Place Community Shopping Center (herein referred to as the "Project") located in Perris, CA and determine if the project would result in any significant transportation impacts. Senate Bill 743 (SB 743) was approved in 2013 and changes the way transportation impacts are measured under the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of vehicle miles travelled (VMT) as the required metric to replace the automobile delay-based LOS. The VMT assessment is required to satisfy CEQA guidelines that utilizes VMT as the required metric to determine transportation impacts. The VMT assessment was based on the criteria outlined in the *City of Perris Transportation Impact Analysis Guidelines for CEQA, May 12, 2020 (City's TIA Guidelines)*.

Project Description

The Project proposes to construct and operate a total of seven new commercial/retail buildings on a 10.55-acre site located at the southeast corner of Placentia Avenue and North Perris Boulevard. The Project site is vacant and located within Planning Area 5 and designated Community Commercial in the Perris General Plan. The Project includes a 59,371 square foot (sf) grocery store/supermarket, 30,113 sf of retail over three buildings, a 4,913 sf convenience store with 16 fueling positions, 4,700 sf fast-food with drive through lanes over two buildings, and a 2,367 sf coffee shop with a drive through lane. A preliminary site plan has been prepared and included as an attachment.

Trip Generation

The trip generation rate for the Project was based on the rates for the various land uses contained in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*. **Table 1** summarizes the proposed trip generation for the Project. Passby reduction factors were applied to the various land uses.

As shown in the table, the Project is estimated to generate 16,617 daily trips (ADT) with 1,056 trips (576 inbound, 480 outbound) during the AM peak-hour and 1,337 trips (656 inbound, 681 outbound) in the PM peak-hour at the project driveways. After applying the passby trip reductions, the Project is estimated to generate a net of 9,006 ADT with 576 trips (333 inbound, 243 outbound) during the AM peak-hour and 780 trips (380 inbound, 480 outbound) during the PM peak-hour.

MIZUTA TRAFFIC CONSULTING

Table 1: Project Trip Generation

TRIP GENERATION RATES[1]								
Land Use	ITE Code	Weekday Daily	AM PEAK Rate	AM PEAK In:Out Ratio		PM PEAK Rate	PM PEAK In:Out Ratio	
Shopping Plaza (40K to 150K)	821	94.49 trips / ksf	3.53	0.62	: 0.38	9.03	0.48	: 0.52
Fast-Food Restaurant w/Drive-Through Window	934	467.48 trips / ksf	44.61	0.51	: 0.49	33.03	0.52	: 0.48
Coffee Shop w/Drive-Through Window	937	533.57 trips / ksf	85.88	0.51	: 0.49	38.99	0.50	: 0.50
Convenience Store/Gas Station VFP (16-24)	945	1283.38 trips / ksf	91.35	0.50	: 0.50	78.95	0.50	: 0.50

TRIP GENERATION CALCULATIONS			AM PEAK			PM PEAK		
Land Use	Amount	ADT	In	Out	Total	In	Out	Total
Vallarta Supermarket / Retail Bldgs 1 & 2	96.484 ksf	9,117	212	129	341	419	453	872
Internal Capture Trip Reduction[3]		*-1,094*	*-12*	*-20*	*-32*	*-34*	*-26*	*-60*
Less Passby (24%-Daily & PM, 0%-AM)[2]		*-1,926*	0	0	0	*-92*	*-103*	*-195*
Convenience Store/Gas Station	4.913 ksf	6,306	225	224	449	194	194	388
Internal Capture Trip Reduction[3]		*-757*	*-16*	*-26*	*-42*	*-15*	*-11*	*-26*
Less Passby (75%-Daily & PM, 76%-AM)[2]		*-4,162*	*-159*	*-150*	*-309*	*-134*	*-138*	*-272*
Fast-Food Restaurant w/Drive-Through Window	4.700 ksf	2,198	108	102	210	82	74	156
Internal Capture Trip Reduction[3]		*-264*	*-23*	*-14*	*-37*	*-23*	*-31*	*-54*
Less Passby (50%-Daily & AM, 55%-PM)[2]		*-967*	*-43*	*-44*	*-87*	*-32*	*-24*	*-56*
Coffee Shop w/Drive-Through Window	2.367 ksf	1,263	105	99	204	47	46	93
Internal Capture Trip Reduction[3]		*-152*	*-23*	*-14*	*-37*	*-14*	*-18*	*-32*
Less Passby (50%-Daily & AM, 55%-PM)[2, 4]		*-556*	*-41*	*-43*	*-84*	*-18*	*-16*	*-34*
Total Internal Capture Trip Reduction[3]		*-2,267*	*-74*	*-74*	*-148*	*-86*	*-86*	*-172*
Total Driveway Trips		16,617	576	480	1,056	656	681	1,337
Less Pass-by Trips		***-7,611***	***-243***	***-237***	***-480***	***-276***	***-281***	***-557***
Net New Traffic		9,006	333	243	576	380	400	780

Notes:
ksf: 1,000 square feet, vfp: vehicle fueling positions

1. The trip rates for the project's land use are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition.*
2. The passby trip rate is based on the average rates published in the *ITE Trip Generation Manual, 11th Edition.*
3. The internal capture trips are estimated based on the methodologies contained in the NCHRP Report 684. The daily percentage of 12% was based on the average of the AM and PM peak period internal capture percentages.
4. The passby trip rate is based on the average rates for the Fast-Food Restaurant with Drive-Through land use (LUC 934).

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VMT Assessment

According to the *City's TIA Guidelines*, there are five screening criteria that can be applied to effectively screen projects from VMT project-level assessments. The purpose is to screen out projects that are presumed to have a non-significant transportation impact based on facts of a project and to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743. The following lists the various screening criteria:

1. Is the project 100% affordable housing?
2. Is the project within one half (1/2) mile of qualifying transit?
3. Is the project a local serving land use?
4. Is the project in a low VMT area?
5. Are the project's net daily trips less than 500 ADT?

If the project meets any of the screening criteria above, they are presumed to not have a significant impact and are screened out from completing additional VMT analysis.

VMT Screening Analysis

Upon reviewing the screening criteria, the most appropriate and applicable criteria for the project was the project located within ½ mile of qualifying transit criteria. According to *City's TIA Guidelines*, projects located within ½ mile of an existing or major transit stop or an existing stop along a high-quality transit corridor may be presumed to have a less than significant impact absent substantial evidence to the contrary.

The City's Transit Priority Area (TPA) exhibit was referenced and it was determined that the Project is located within the TPA. Additionally, WRCOG VMT Screening Tool was used for the screening. The Project is located in TAZ 1836 and this is located inside a TPA.

As a result, the TPA screening threshold is met.

Conclusion

Based on the review of the applicable VMT screening thresholds, the Project satisfies the TPA screening and is presumed to result in a less than a significant VMT impact. As such, no additional VMT analysis is required or recommended.

ATTACHMENTS

- Site Plan
- TPA Map
- WRGOG Screening Tool Results
- VMT Scoping Form

WSCS DESIGN
2501 E Guasti Rd #201
Ontario Ca, 91761
909-544-9118
Www.WSCSdesign.Com

Retail Required Parking

Name	Area	Factor	Min. Parking
C-Store	4913 SF	250	20
Junior Anchor	15593 SF	250	63
Retail #2	7000 SF	250	28
Shop Retail #1	7520 SF	250	31
Vallarta Market	59371 SF	250	238
Grand total	94397 SF		380

Drive-In Required Parking

Name	Area	Dining Area	Min. Required Parking
Coffee QSR	2367 SF	947 SF	29
QSR #1	2621 SF	1048 SF	31
QSR #2	2079 SF	832 SF	27
Grand total	7067 SF		87

PARKING REQUIRED:
- 467 SPACES [CITY OF PERRIS CODE OF ORDINANCES, CHAPTER 19.69.030]
- 9 ADA SPACES (INCLUDING 2 VAN ACCESSIBLE) [CBC 2022, TABLE 11B-208.2]
- 20% OF 467 ACTUAL PARKING SPACES = 94 EV CAPABLE SPACES (25% OF 94 EV CAPABLE SPACES = 24 EVSE SPACES PER) [CGBC 2022, TABLE 5.106.5.3.1]

PARKING PROVIDED:
- 489 SPACES (TOTAL)
- 18 ADA SPACES INCLUDED (2 VAN ACCESSIBLE)
- 96 EV CAPABLE SPACES INCLUDING 25 EVSE SPACES AND 1 ADA EVSE SPACE
- 72 COMPACT SPACES (15% OF 477 SPACES = 72 COMPACT SPACES) [19.69.030]

Revision		
Number	Description	Date

Provided Parking

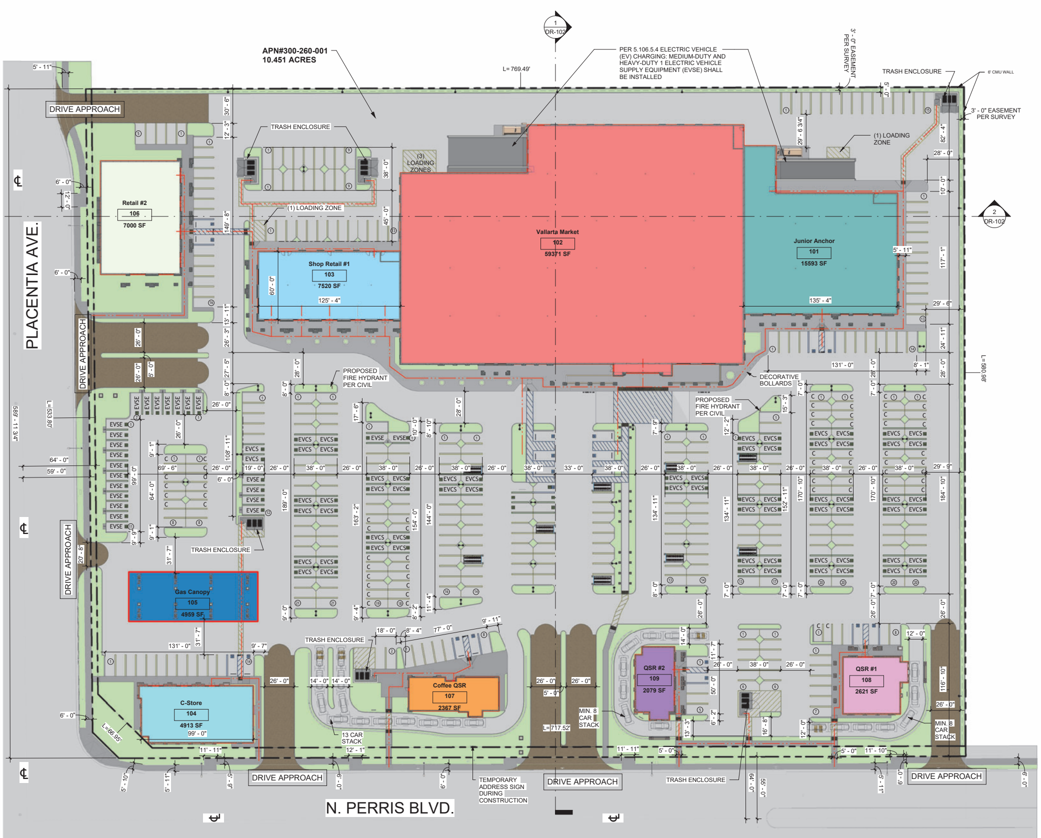
Parking Type	Count
	5
ADA	16
Compact	68
EVCS	70
EVSE	25
EVSE ADA	1
Regular	302
VAN ADA	2
Total Parking Provided	489

Required Electric Vehicle Parking Per CGBC Table 5.106.5.3.1

Total Parking Spaces Provided	Number of Required EV Capable Spaces (EVCS)	Number of EV Charging Stations (EVSE)
489	98	25

Site GLA Area

Name	Number	Area
Junior Anchor	101	15593 SF
Vallarta Market	102	59371 SF
Shop Retail #1	103	7520 SF
C-Store	104	4913 SF
Gas Canopy	105	4959 SF
Retail #2	106	7000 SF
Coffee QSR	107	2367 SF
QSR #1	108	2621 SF
QSR #2	109	2079 SF
Grand total		106422 SF



1 ***Site Plan***
1" = 40'-0"

NORTH

Site Legend

	PATH OF TRAVEL
EVCS	ELECTRIC VEHICLE CAPABLE SPACES
EVSE	ELECTRIC VEHICLE CHARGING STATIONS WITH SUPPLIED EQUIPMENT.
C	COMPACT

Site Plan Legend

- Vallarta Market
- C-Store
- Coffee QSR
- Gas Canopy
- Junior Anchor
- QSR #1
- QSR #2
- Retail #2
- Shop Retail #1

Design Review for:

Valgon Properties LLC

22-801
08/05/2024

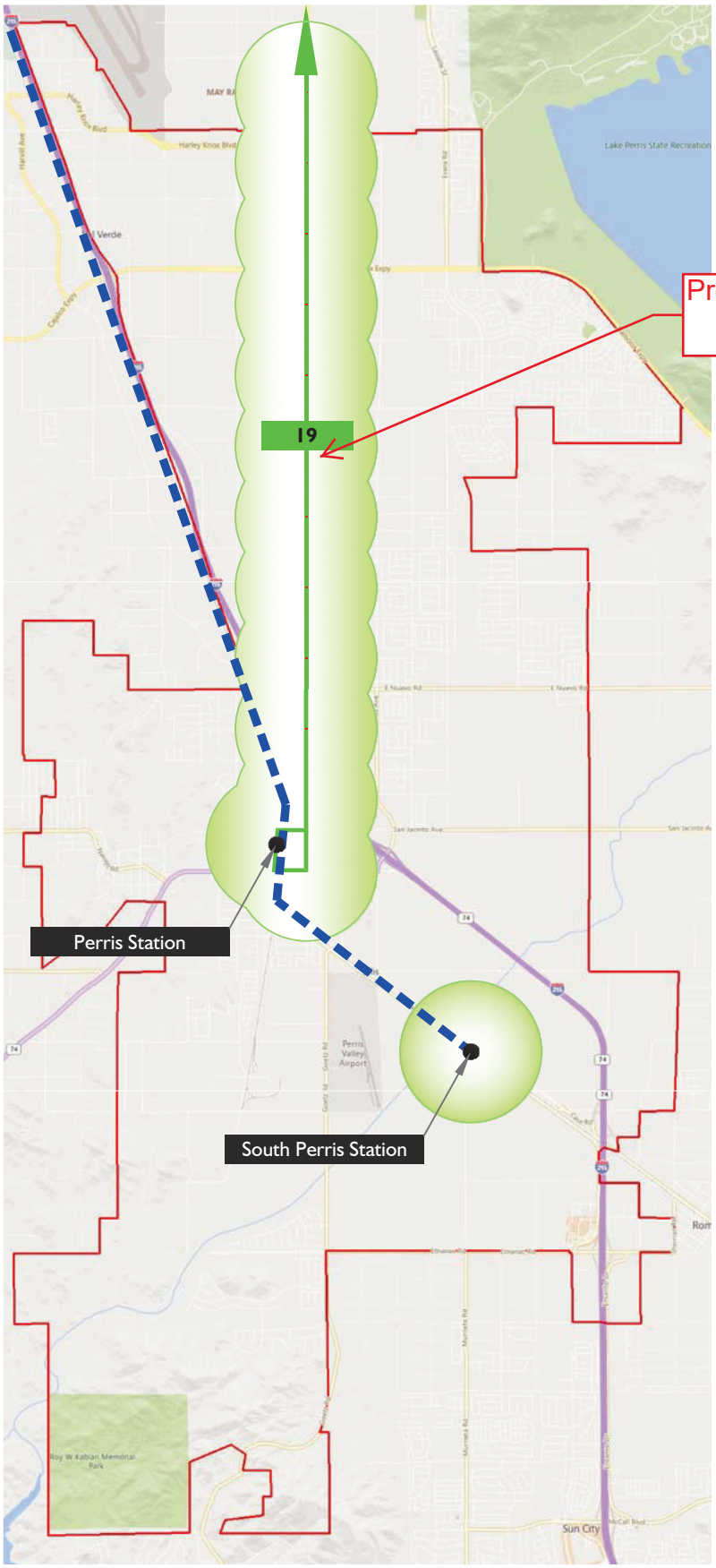
SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-101

Site Plan

Exhibit B

Perris Transit Priority Areas



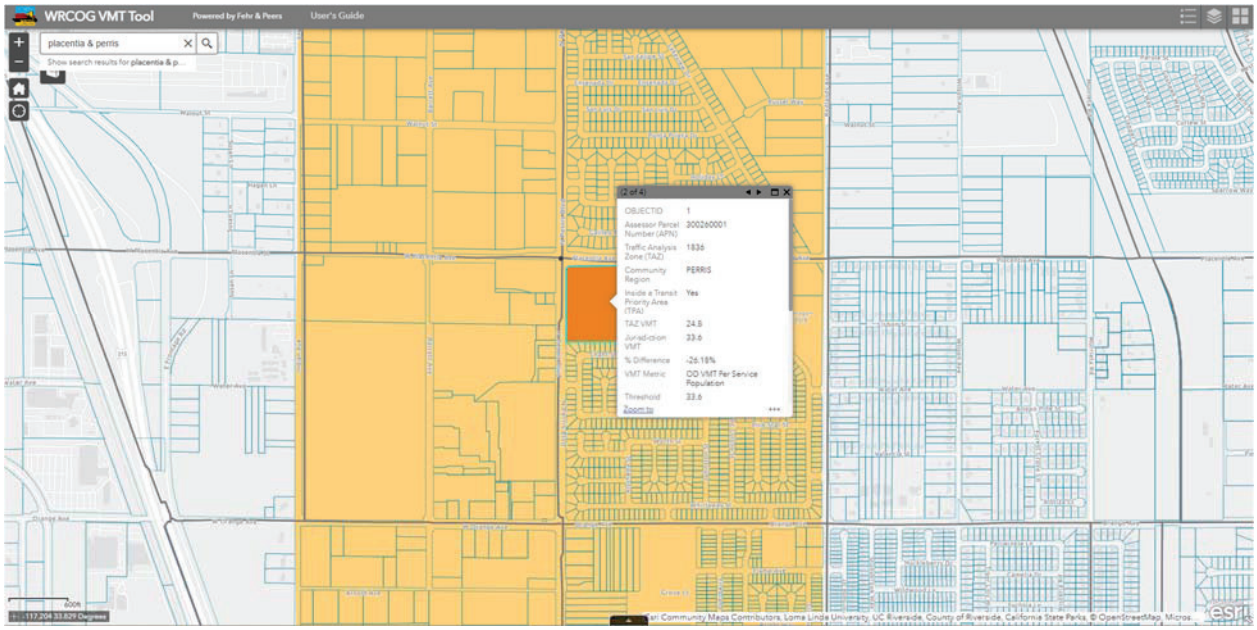
Legend:

= Transit Priority Area (1/2 Mile Radius)

19 = RTA Bus Route 19

= Metrolink 91/Perris Valley Line

N



OBJECTID	1
Assessor Parcel Number (APN)	300260001
Traffic Analysis Zone (TAZ)	1836
Community Region	PERRIS
Inside a Transit Priority Area (TPA)	Yes
TAZ VMT	24.8
Jurisdiction VMT	33.6
% Difference	-26.18%
VMT Metric	OD VMT Per Service Population
Threshold	33.6

City of Perris
www.cityofperris.org

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No.:

Project Name: Perris Marketplace

Project Location: APN: 300-200-001

Project Description: 59,371 square foot (sf) grocery store/supermarket, 30,113 sf of retail over three buildings, a 4,913 sf convenience store with 16 fueling positions, and 4,700 sf fast-food with drive through lanes over two buildings, 2,367 sf coffee shop with drive through lane.

(Please attach a copy of the project Site Plan)

Current GP Land Use: Community Commercial (CC)

Proposed GP Land Use: Community Commercial (CC)

Current Zoning: Community Commercial (CC)

Proposed Zoning: Community Commercial (CC)

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

	YES		NO		Attachments:
A. Is the Project 100% affordable housing?	**YES**		**NO**	x	
B. Is the Project within 1/2 mile of qualifying transit?	**YES**	x	**NO**		Figure 1
C. Is the Project a local serving land use?	**YES**		**NO**	x	
D. Is the Project in a low VMT area?	**YES**		**NO**	x	
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
1836		VMT/Capita	Residential:	
	24.8	VMT/Employee	Non-Residential:	x

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: ITE Trip Generation Manual, 11th Edition

Project Trip Generation: 16,617 **Average Daily Trips (ADT)**

	YES		NO			
Internal Trip Credit:	YES	x	NO		% Trip Credit:	12%
Pass-By Trip Credit:	YES	x	NO		% Trip Credit:	0-76%
Affordable Housing Credit:	YES		NO	x	% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO	x	Trip Credit:	

Net Project Daily Trips: 9,006 **Average Daily Trips (ADT)** Attachments: Table 1

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** x **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Signficant

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	x

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	n/a	n/a
B. Unmitigated Project TAZ VMT Rate:	n/a	n/a
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	n/a	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	
Project Location Setting	

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	n/a	n/a

F. Is the project pressumed to have a less than significant impact with mitigation?

n/a

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Mizuta Traffic Consulting	**Company:**	
Contact:	Marc Mizuta	**Contact:**	
Address:	5694 Mission Center Rd #602-121, San Diego, CA 92108	**Address:**	
Phone:	858-752-8212	**Phone:**	
Email:	marc@mizutatraffic.com	**Email:**	
Date:	10/02/24	**Date:**	

Approved by:

Perris Development Serivces Dept. Date	**Perris Public Works Dept. Date**