PBP INDUSTRIAL PROJECT
SITE PLAN REVIEW 20-011
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

LEAD AGENCY:

City of Palmdale
Department of Economic and Community Development
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Palmdale, California 93550
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FEBRUARY 2024

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PROJECT APPLICANT:

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February 2024

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1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before action on those projects ensues. Pursuant to Section 15367 of the CEQA Guidelines, the City of Palmdale (City) is the Lead Agency and has the principal responsibility of approving the proposed project. As the Lead Agency, the City is required to ensure that the proposed project complies with CEQA and that the appropriate level of CEQA documentation is prepared. Through preparation of an Initial Study, the City of Palmdale determines whether to prepare an Environmental Impact Report (EIR), Negative Declaration (ND) or Mitigated Negative Declaration (MND). Based on the conclusions of this Draft Initial Study, the City has recommended that the appropriate level of environmental documentation for the proposed project is a Mitigated Negative Declaration. This Initial Study/ Mitigated Negative Declaration (IS/MND) analyzes the potential direct, indirect, and cumulative effects associated with implementation of the proposed project.

1.1 Statutory Authority and Requirements

In accordance with CEQA (Public Resources Code Sections 21000-21177) and pursuant to Section 15063 of Title 14 of the California Code of Regulations (CCR), the City as the Lead Agency, is required to undertake the preparation of an Initial Study to determine whether the proposed project would have a significant environmental impact. If the Lead Agency finds that there is no substantial evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall prepare a Negative Declaration (or MND) for that project. (Section 21080(c), Public Resources Code).

This MND, which may ultimately be adopted by the City of Palmdale in accordance with CEQA, is intended as an informational document undertaken to describe the potential environmental impacts of the project. However, the resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits, and other discretionary approvals would be required.

1.2 Purpose of the Initial Study

The purpose of the Initial Study is to analyze the potential environmental impacts resulting from the proposed industrial project described in detail within Section 4.0, *Environmental Analysis*. To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16, and Lot 20 (Assessor Parcel Numbers: 3022-026-012, 3022-025-004, and 3022-025-008), which are also owned by the applicant with the intent that they would be developed in the near future. Several of the technical studies for the project also include information on future Lots 12, 16, and 20.

Section 15063 of the CEQA Guidelines identifies global disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study must include: (1) a description of the project, including the location of the project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an

examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the Initial Study.

1.3 Incorporation by Reference

The long-range planning documents listed below were utilized during the preparation of this Initial Study. The City of Palmdale documents are available for review at the City of Palmdale Planning Department at 38300 Sierra Highway, Palmdale, California 93550.

- City of Palmdale General Plan. The General Plan establishes the direction and vision for the City of Palmdale and provides a blueprint that will guide the Palmdale community for the future. The General Plan consists of twelve elements including Land Use and Community Design; Circulation and Mobility; Economic Development; Military Compatibility; Equitable and Healthy Communities; Parks, Recreation, and Open Space; Conservation; Public Facilities, Services, Infrastructure; Safety; Sustainability, Climate Action, Resilience; Air Quality; and Noise. The General Plan is used for general background information on the City and is referenced throughout the document.
- Palmdale Municipal Code. The *Palmdale Municipal Code* (PMC) is current through Ordinance U-1602. The PMC was updated as of March 15, 2023, and subsequently amended on August 16, 2023, and consists of codes and ordinances adopted by the City. These include standards intended to regulate Health and Safety, Public Peace, Morals, and Welfare, Vehicles and Traffic, Street, Sidewalks and Public Places, Sanitary Sewers, Environmental Management, Building and Construction, Aircraft Operations, Subdivision, and Zoning. The Palmdale Municipal Code, contains specific rules and regulations pertaining to the City, is referenced throughout the document.

These documents, incorporated by reference, were utilized throughout this analysis as the fundamental planning documents that may apply to the project site. Background information and policy information, as well as specific adopted rules and regulations pertaining to the City of Palmdale were also relied upon throughout this document.

1.4 Consultations

AB 52 NATIVE AMERICAN CONSULTATION

California Assembly Bill 52 (AB 52) established a formal consultation process for California tribes within the CEQA process. AB 52 specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." The City of Palmdale initiated tribal consultation for the purposes of AB 52 for the proposed project on August 3, 2023. Those tribes that have requested to be listed on the City's notification list for the purposes of AB 52 were notified in writing via certified mail. As part of this process, the City has provided notification to each of the listed tribes for the opportunity to consult with the City regarding the proposed project.

2.0 PROJECT DESCRIPTION

2.1 Environmental Setting

2.1.1 Location

The project site consists of one vacant parcel of land and is located in the City of Palmdale, Los Angeles County, California; refer to Figure 2-1, *Regional Location.* The project site is located east of Lockheed Way, west of 10th Street East, south of Blackbird Drive, and north of East Rancho Vista Boulevard (Avenue P). The project site can be locally accessed from Sierra Highway (SR-138), Lockheed Way, East Rancho Vista Boulevard (Avenue P), and 10th Street East; refer to Figure 2-2, *Local Vicinity*.

2.1.2 Physical Setting

The project site is located in the southern-central portion of Antelope Valley portion of the Mojave Desert. The site is currently vacant and identified by Assessor's Parcel Number (APN 3022-026-003).

Subsurface soils are part of the Hesperia formation and include loamy fine sand. The site is underlain by Pleistocene sand and gravel. No known active faults have been mapped across the subject site. The potential hazards due to active fault ground rupture are considered minimal.

Topographic coverage for the project site is provided by the U. S. Geological Survey (USGS) 7.5-minute Palmdale, California quadrangle map; refer to Figure 2-3, *USGS Topographic Map*.

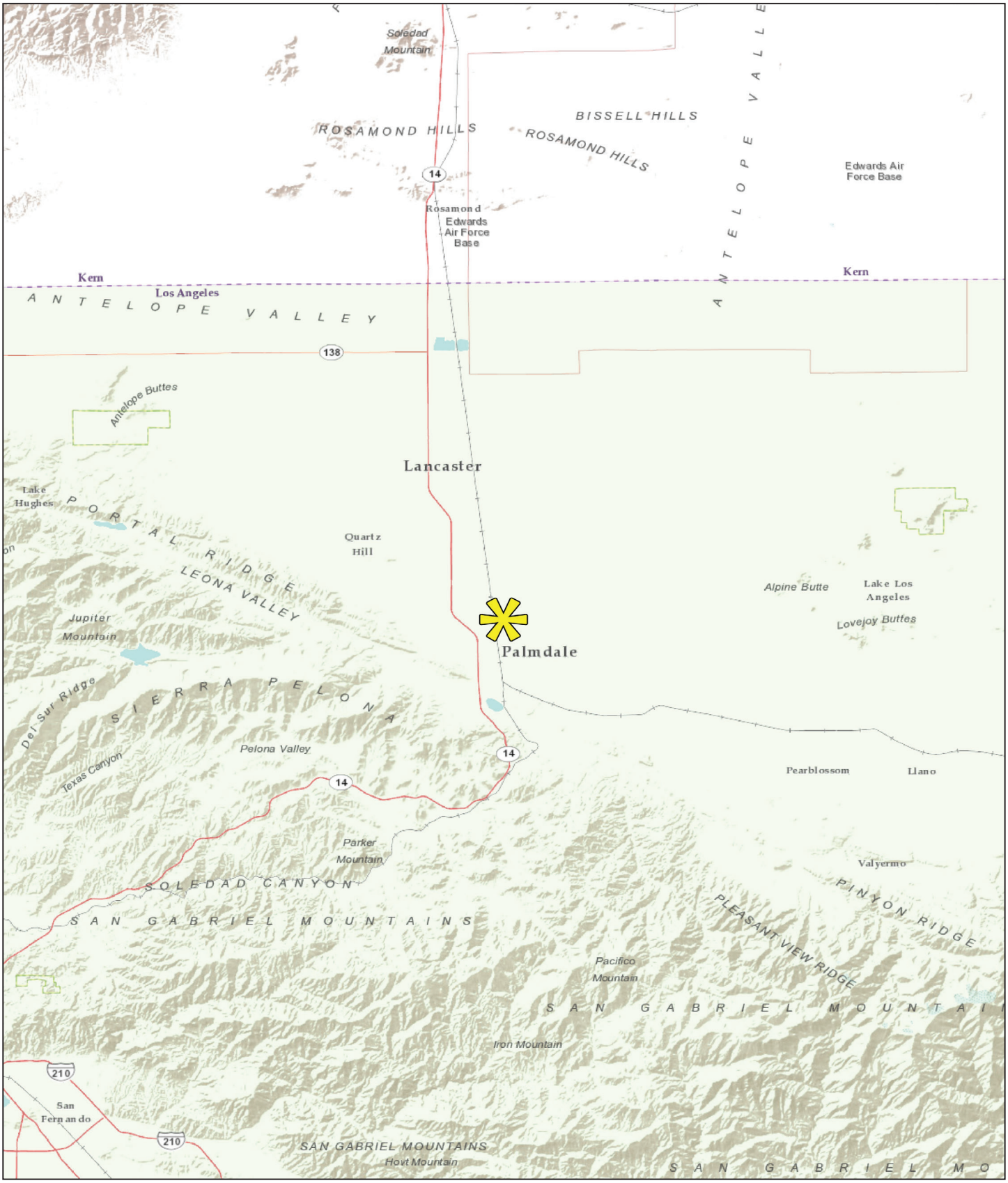
The site is situated approximately 2,590 feet above mean sea level in an area of low relief. The regional topography slopes gradually towards the west-northwest.

The site is located within the southern portion of the Lancaster subunit of the Antelope Valley Groundwater Basin. The groundwater flow pattern is expected to follow the local topographic gradient, which is towards the west-northwest.

The project site is within the Antelope Valley Watershed. Drainage occurs by sheet flow at an approximate 1-2 percent to the east. No surface bodies of water were observed at the site or within a 0.25-mile radius. There are no streambed or drainage features containing Waters of the United States or Waters of the State on the project site.

The Federal Emergency Management Agency (FEMA) Flood Zone Map Panel identifies the project site is in Zone-X areas within a 0.2 percent Annual Chance Flood Hazard Zone.

According to the California Department of Forestry and Fire Protection, the project site is not within a Very High Fire Severity Hazard Area.



Source: ESRI and USGS; March 2023.
- approximate Project Location

Regional Location

Figure 2-1

Source: VCS Environmental; November 2023.

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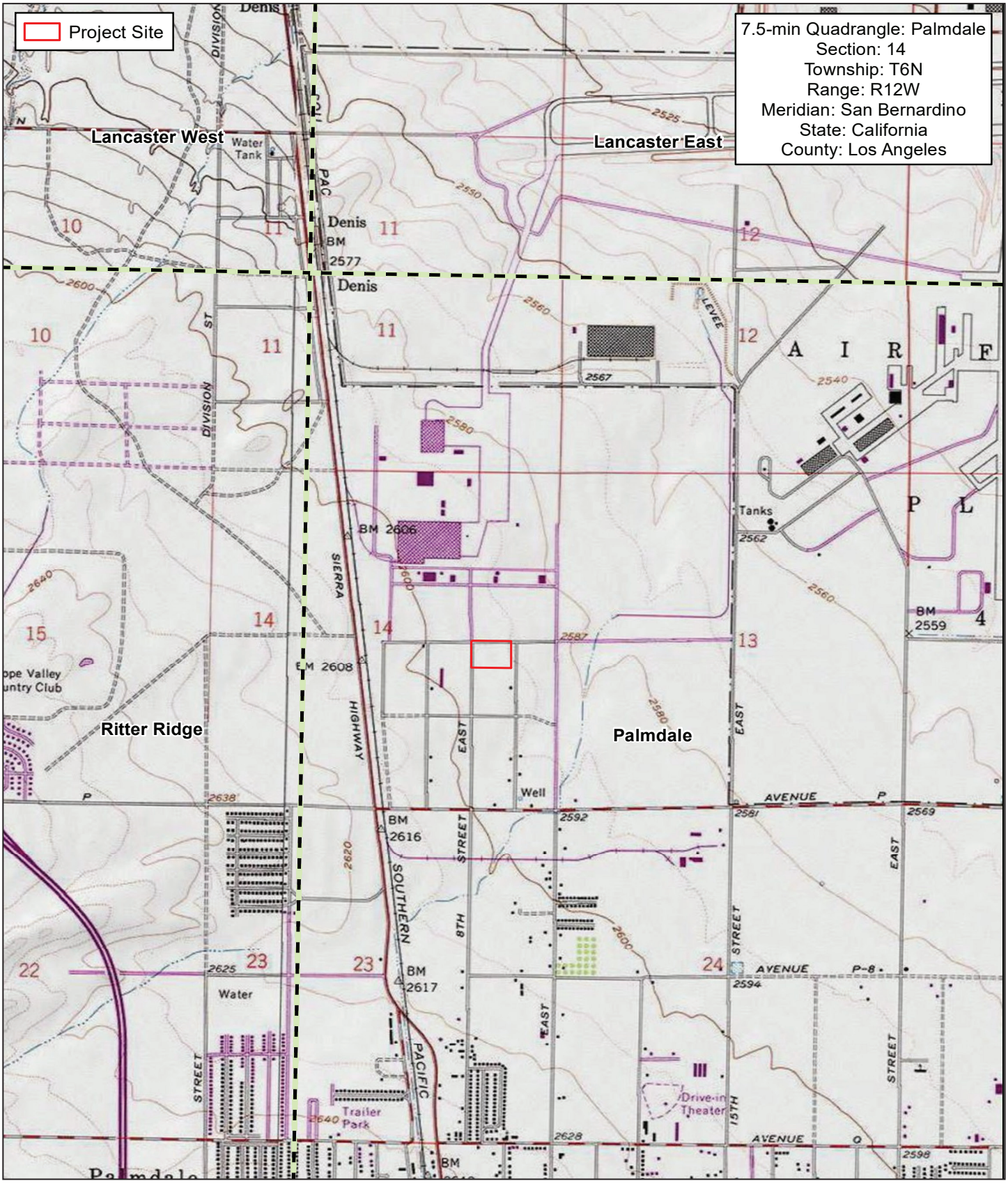
Local Vicinity

Figure 2-2



Source: ESRI and USGS; February 2023.

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USGS Topographic Map

Figure 2-3

The project site is approximately 0.70 miles from U.S. Air Force (USAF) Plant 42. Plant 42 is used primarily as a production flight test installation by the USAF. Plant 42 provides industrial facilities for production, engineering, final assembly, modification, depot maintenance and flight testing of aerospace systems.

The City General Plan Military Compatibility Element identifies a Military Influence Area around Plant 42. The Military Influence Area covers areas where military operations may impact the local community and where the local community may impact military functions. The Military Influence Area includes not only the military operations area, but also three safety zones extending from both ends of aircraft runways—the Clear Zone (CZ) and two Accident Potential Zones (APZs).

The project area is not located in Accident Potential Zone but is within the 65 to 69 dB Aircraft Noise Contour Area.

2.1.3 Land Use Setting

HISTORICAL LAND USES

As shown in Table 2-1, *Historical Land Use*, based on review of the historical aerial photographs of the project site from 1928 to 2016, the property has been vacant with minimal development activity occurring in the project area.

Table 2-1
Historical Land Use

Year	Feature
1928	The site and vicinity are undeveloped and mostly undisturbed. Some dirt paths are viewed on the site and in the greater site vicinity. Railroad tracks are viewed approximately 0.25-mile west of the site.
1940	The site and vicinity appear substantially unchanged from conditions viewed in the 1928 aerial photograph.
1953	The site appears substantially unchanged from conditions viewed in the 1940 aerial photograph. The site vicinity has seen some development to the west and south of the site. Dirt roads are now viewed adjacent to the north, east and west sides of the site, and in the site vicinity.
1968	The site remains undeveloped, but with a disturbance of some sort on the north side. A residential property is viewed on the property south of the site, along with other structures in the greater site vicinity.
1972	The site remains substantially unchanged from conditions viewed in the 1968 aerial photograph. The site vicinity has seen significant changes, including development of Lockheed Martin and USAF Plant 42, just north of the site.
1979	The site and vicinity remain substantially unchanged from conditions viewed in the 1972 aerial photograph.
1981	The site and vicinity remain substantially unchanged from conditions viewed in the 1979 aerial photograph.
1994	The site and vicinity appear substantially unchanged from conditions viewed in the 1981 aerial photograph
2005	The site and vicinity appear substantially unchanged from conditions viewed in the 1994 aerial photograph.
2012	The site and vicinity appear substantially as in the 2005 aerial photograph.
2016	The site and vicinity appear substantially as in the 2012 aerial photograph.

EXISTING LAND USES

Existing conditions on the project site are shown in Figures 2-4a, *Site Photograph Locations*, and Figure 2-4b, *Existing Site Photographs*. The site is undeveloped, unpaved, and adjacent to undeveloped, former residential, aircraft manufacturing and testing facilities, and USAF properties. Lockheed Way is located along the north side of the site, beyond which are aircraft manufacturing and testing facilities and USAF property. No sensitive receptors were reportedly located within a one-quarter mile radius of the project site. Existing land uses and General Plan land use and zoning designations surrounding the project site are shown in Table 2-2, *Land Uses Surrounding the Property*.

Table 2-2
Land Uses Surrounding the Property

Direction	Existing Land Use	Existing General Plan Land Use	Existing Zoning
North	Lockheed Martin Aeronautics, across Blackbird Drive	Lockheed Specific Plan	Lockheed Specific Plan
East	Vacant Land	IND (Industrial)	HI (Heavy Industrial)
South	Vacant Land	IND (Industrial)	HI (Heavy Industrial)
West	Vacant Land, across Lockheed Way	IND (Industrial)	HI (Heavy Industrial)

LAND USE PLANNING PROGRAMS

The City General Plan Land Use Policy Map designates the property IND (Industrial). The designation is intended to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. Under the designation the maximum Floor Area ratio (FAR) is 0.50.

The zoning designation for the proposed project site is HI (Heavy Industrial). The HI zone is established to create, preserve, and enhance areas for heavy industrial uses and associated operations, including assembly, fabrication, packaging, and transport, where operations are conducted primarily indoors pursuant to PMC Table 17.66.010-1 (Development Standards – Industrial Zones).

RELEVANT REGIONAL PLANNING PROGRAMS

Table 2-3, *Relevant Planning Programs/Plans*, is the listing of planning programs and plans that are relevant to the property. Additional information for each planning program and plan is provided in Section 5.0, *Environmental Analysis*.

Table 2-3
Relevant Planning Programs/Plans

Environmental Issue	Relevant Regional Planning Program/Plan
Air Quality	Antelope Valley Air Quality Management District Air Quality Management Plan
Water Quality	Regional Water Quality Control Board Los Angeles Basin Plan
Regional Planning	Southern California Association of Governments Connect SoCal (also known as the 2020 – 2045 RTP/SCS)

Source: Google Earth Pro; August 2023.

- approximate Project Site Boundary

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Site Photograph Locations

Figure 2-4a

View No. 1: View from top portion of the project site from Blackbird Drive looking west towards Lockheed Way.

View No. 4: View from middle portion of the project site looking south.

View No. 2: View from top portion of the project site from Blackbird Drive looking south.

View No. 5: View from the project site looking east.

View No. 3: View from top portion of the project site from Blackbird Drive looking east.

View No. 6: View from the project site looking west.

Existing Site Photographs

Figure 2-4b

2.2 Project Description

2.2.1 Project Characteristics

The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land; refer to Figure 2-5, *Site Plan*. Table 2-4, *Proposed Project Land Use Summary*, provides the square footage amounts of the project's buildings, and outdoor areas. The proposed project would be consistent with the existing IND (Industrial) General Plan land use designation and the existing HI (Heavy Industrial) zoning.

Table 2-4
Proposed Project Land Use Summary

Area	Square Footage
Building Area	94,560 SF
Common Area	800 SF
Concrete Hardscape	139,528 SF
Landscaped Area	27,013 SF
Total Net Land Area Coverage	**261,901 SF**

CIRCULATION PLAN

Regional Access

Regional access to the project site would be provided from State Route 14 (SR-14) and Sierra Highway.

- SR-14 is a north-south, six-lane divided freeway (three lanes in each direction) which provides regional access for the entire Antelope Valley to the rest of Los Angeles County. SR-14 runs north to Kern County and south to the San Fernando Valley to provide the Palmdale community with regional and inter-regional connectivity.
- Sierra Highway is identified as a regional/Regional Arterial on the Palmdale 2045 Circulation Map and is a north-south four-lane road (two in each direction with turn lanes at key intersections) in the project study area. Sierra Highway extends from the City of Mojave, in Kern County, through Palmdale. The posted speed limit is 55 mph.

Local Access

Local access to the project site would be provided from 10th Street East, Lockheed Way, and Blackbird Drive.

- 10th Street East is also identified as a Crosstown Road on the Palmdale 2045 Circulation Map and is a north-south two-lane road (one in each direction) in the project study area. The posted speed limit is 50 mph.
- Lockheed Way is identified as a Connector Street on the Palmdale 2045 Circulation Map and is a north-south six-lane road (two northbound, three southbound and a two-way-left-turn lane

median) in the project study area and has a posted speed limit of 45 mph. Lockheed Way provides driveway access to the project.

- Blackbird Drive is identified as connector roadway on the Palmdale 2045 Circulation Map. Blackbird Drive is an east-west two-lane road (one in each direction) and also has a posted speed limit of 45 mph.

Project Access

The Lockheed Way driveway would provide access for automobiles to enter the parking areas around the perimeter of the building. This driveway also provides access for trucks entering the central loading area. It is recommended that this driveway be restricted to right turns in/right turns out only because it is about 210 feet from Blackbird Drive and within the operational area of the Blackbird Drive/ Lockheed Way intersection. Further, Lockheed Way has a six-lane cross-section at this point (the driveway is placed at the point between where the northbound approach turning lanes begin and the 130-foot-long transition where northbound vehicles jockey into position for entering the turning lanes). The restriction is being recommended for safety reasons.

Lockheed Way and Blackbird Drive driveway would provide access for automobiles to enter the parking areas around the perimeter of the building; refer to Figure 2-5, *Site Plan*.

Access Alley (9th Street East) – An access alley is proposed adjacent to the eastern property line. The construction of these access lanes (which also provides access for emergency response vehicles) would include full improvements on the project's frontage and 24 feet of alley pavement without edge improvements on the east side to allow for two-way traffic. The alley's driveway connection to Lockheed Way/Blackbird Drive is proposed as a two-way full access driveway. The dead-end southern end of the access alley will require a fire apparatus turnaround approved by the Los Angeles County Fire District.

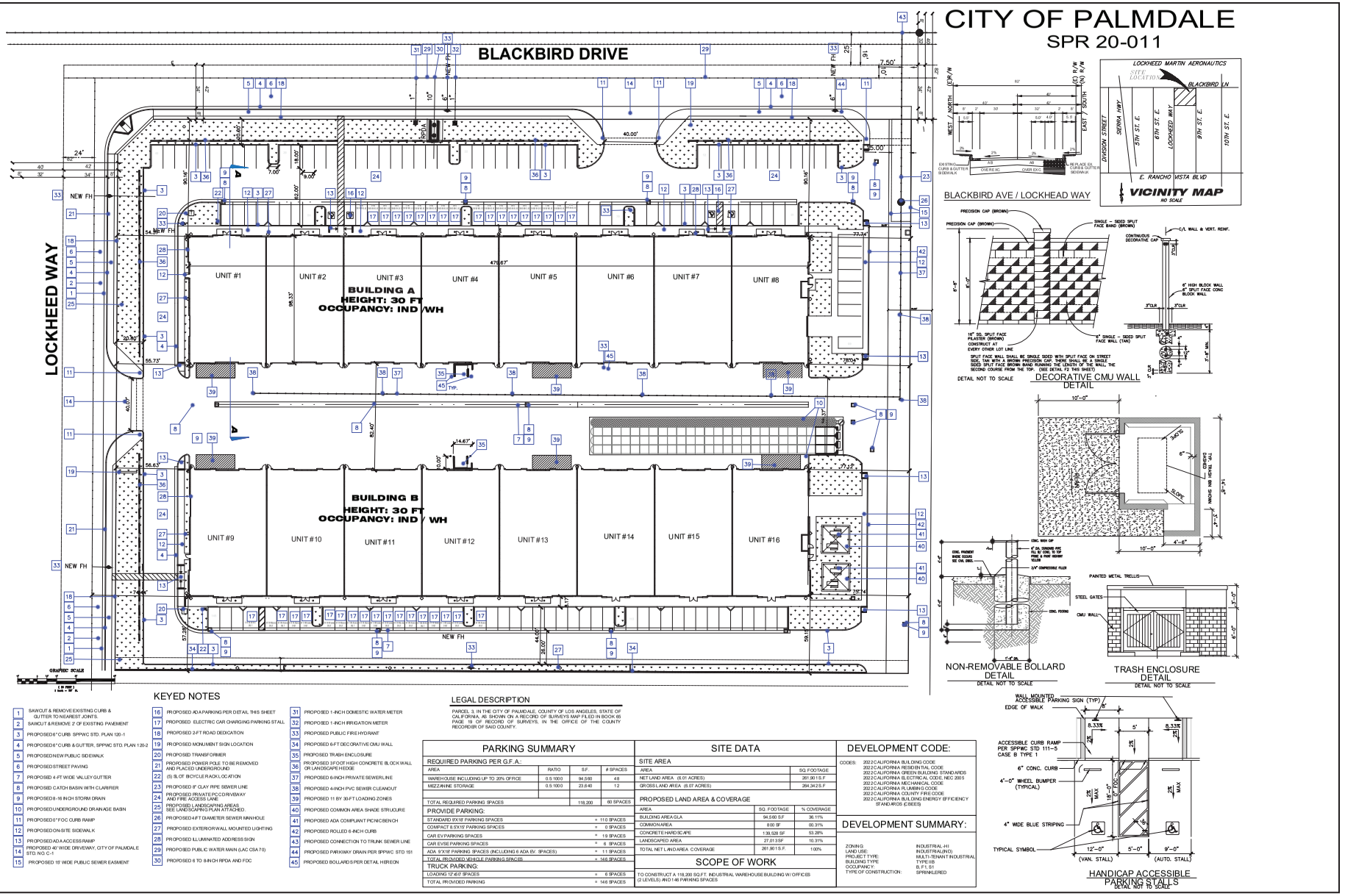
Alley Driveways – The 9th Street East access alley provides three primary driveways into the project. The driveways located at the north and south ends of the site provide access for automobiles to enter the parking areas around the perimeter of the building. The midpoint driveway provides access for trucks entering the central loading area for the sixteen industrial units.

Parking

Table 2-5, *Parking Summary*, provides a breakdown of the parking spaces provided by the proposed project.

Table 2-5
Parking Summary

Parking	Spaces
Standard	110
Car EV Parking	19
Car EVSE Parking	6
ADA (Including 6 ADA EV)	11
Total	**146**



KEYED NOTES

1. SAWCUT & REMOVE EXISTING CURB & GUTTER TO NEAREST JOINTS.
2. SAWCUT & REMOVE 2' OF EXISTING PAVEMENT
3. PROPOSED 6" CURB, SPPWC STD. PLAN 120-1
4. PROPOSED 6" CURB & GUTTER, SPPWC STD. PLAN 120-2
5. PROPOSED NEW PUBLIC SIDEWALK
6. PROPOSED STREET PAVING
7. PROPOSED 4-FT WIDE VALLEY GUTTER
8. PROPOSED CATCH BASIN WITH CLARIFIER
9. PROPOSED 8-16 INCH STORM DRAIN
10. PROPOSED UNDERGROUND DRAINAGE BASIN
11. PROPOSED 0' FOC CURB RAMP
12. PROPOSED ON-SITE SIDEWALK
13. PROPOSED ADA ACCESS RAMP
14. PROPOSED 40' WIDE DRIVEWAY, CITY OF PALMDALE STD. NO C-1
15. PROPOSED 15' WIDE PUBLIC SEWER EASEMENT
16. PROPOSED ADA PARKING PER DETAIL THIS SHEET
17. PROPOSED ELECTRIC CAR CHARGING PARKING STALL
18. PROPOSED 2-FT ROAD DEDICATION
19. PROPOSED MONUMENT SIGN LOCATION
20. PROPOSED TRANSFORMER
21. PROPOSED POWER POLE TO BE REMOVED AND PLACED UNDERGROUND
22. (5) SLOT BICYCLE RACK LOCATION
23. PROPOSED 8" CLAY PIPE SEWER LINE
24. PROPOSED PRIVATE PCC DRIVEWAY AND FIRE ACCESS LANE
25. PROPOSED LANDSCAPING AREAS. SEE LANDSCAPING PLAN ATTACHED.
26. PROPOSED 4-FT DIAMETER SEWER MANHOLE
27. PROPOSED EXTERIOR WALL MOUNTED LIGHTING
28. PROPOSED ILLUMINATED ADDRESS SIGN
29. PROPOSED PUBLIC WATER MAIN (LAC CSA 70)
30. PROPOSED 6 TO 8-INCH RPDA AND FDC
31. PROPOSED 1-INCH DOMESTIC WATER METER
32. PROPOSED 1-INCH IRRIGATION METER
33. PROPOSED PUBLIC FIRE HYDRANT
34. PROPOSED 6-FT DECORATIVE CMU WALL
35. PROPOSED TRASH ENCLOSURE
36. PROPOSED 3'-0" HIGH CONCRETE BLOCK WALL OR LANDSCAPE HEDGE
37. PROPOSED 6-INCH PRIVATE SEWER LINE
38. PROPOSED 4-INCH PVC SEWER CLEANOUT
39. PROPOSED 11 BY 30-FT LOADING ZONES
40. PROPOSED COMMON AREA SHADE STRUCURE
41. PROPOSED ADA COMPLIANT PICNIC BENCH
42. PROPOSED ROLLED 6-INCH CURB
43. PROPOSED CONNECTION TO TRUNK SEWER LINE
44. PROPOSED PARKWAY DRAIN PER SPPWC STD 151
45. PROPOSED BOLLARDS PER DETAIL H/BEGIN

LEGAL DESCRIPTION

PARCEL 3, IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON A RECORD OF SURVEYS MAP FILED IN BOOK 65 PAGE 19 OF RECORD OF SURVEYS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARKING SUMMARY

REQUIRED PARKING PER G.F.A.:			
AREA	RATIO	S.F.	# SPACES
WAREHOUSE INCLUDING UP TO 20% OFFICE	0.5/1000	94,600	48
MEZZANINE STORAGE	0.5/1000	23,640	12
TOTAL REQUIRED PARKING SPACES		118,200	60 SPACES

PROVIDE PARKING:	
STANDARD 9'X18' PARKING SPACES	= 110 SPACES
COMPACT 8.5'X15' PARKING SPACES	= 0 SPACES
CAR EV PARKING SPACES	= 19 SPACES
CAR EVSE PARKING SPACES	= 6 SPACES
ADA 9'X18' PARKING SPACES (INCLUDING 6 ADA EV. SPACES)	= 11 SPACES
TOTAL PROVIDED VEHICLE PARKING SPACES	= 146 SPACES
TRUCK PARKING:	
LOADING 12'x67' SPACES	= 6 SPACES
TOTAL PROVIDED PARKING	= 146 SPACES

SITE DATA

SITE AREA		
AREA	SQ.FOOTAGE	
NET LAND AREA (6.01 ACRES)	261,901 S.F.	
GROSS LAND AREA (6.07 ACRES)	264,342 S.F.	
PROPOSED LAND AREA & COVERAGE		
AREA	SQ. FOOTAGE	% COVERAGE
BUILDING AREA GLA	94,600 S.F.	36.11%
COMMON AREA	810 SF	00.31%
CONCRETE HARDSCAPE	139,528 SF	53.28%
LANDSCAPED AREA	27,013 SF	10.31%
TOTAL NET LAND AREA COVERAGE	261,901 S.F.	100%

SCOPE OF WORK

TO CONSTRUCT A 118,200 SQ.FT. INDUSTRIAL WAREHOUSE BUILDING W/ OFFICES (2 LEVELS) AND 146 PARKING SPACES

DEVELOPMENT CODE:

CODES: 2022 CALIFORNIA BUILDING CODE
2022 C CALIFORNIA RESIDENTIAL CODE
2022 C CALIFORNIA GREEN BUILDING STANDARDS
2022 C CALIFORNIA ELECTRICAL CODE, NEC 2015
2022 C CALIFORNIA MECHANICAL CODE
2022 C CALIFORNIA PLUMBING CODE
2022 C CALIFORNIA COUNTY FIRE CODE
2022 C CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS (CBEES)

DEVELOPMENT SUMMARY:

ZONING:	INDUSTRIAL-HI
LAND USE:	INDUSTRIAL(IND)
PROJECT TYPE:	MULTI-TENANT INDUSTRIAL
BUILDING TYPE	TYPE IIB
OCCUPANCY:	B, F-1, S1
TYPE OF CONSTRUCTION:	SPRINKLERED

Source: Red Brick Solution; June 22, 2023.

Site Plan

Figure 2-5

BICYCLE RACKS

As shown on Figure 2-5, *Site Plan*, the proposed project includes two five-slot bicycle racks: one in the northwest corner near the entrance to Unit 1 and the other in the southwest corner near the entrance to Unit 9 and the electric car charging parking stalls. The bicycle racks are accessed from the entrances located at either Blackbird Drive or Lockheed Way.

LOADING ZONES

The proposed project includes six 11-foot by 30-foot loading zones connected to the back entrances of Units 1, 5, 8, 9, 13, and 16. The loading zones would be accessible by a 40-foot-wide driveway entrance located at Lockheed Way; refer to Figure 2-5, *Site Plan*.

PROPOSED PROJECT FRONTAGE IMPROVEMENTS

Lockheed Way and Blackbird Drive are classified as Connector roadways with a right-of-way range between a minimum of 66 feet and a maximum 94 feet. The existing right-of-way is 80 feet. Along the project site frontage, two feet of land would be dedicated to creating an 82-foot right-of-way and construct a new sidewalk (five feet, five inches), curb and gutter (two feet), and new paving (24 feet).

ARCHITECTURE/LANDSCAPE ARCHITECTURE

The project is envisioning a modern architectural style that emphasizes structural articulation. Representations of modern design elements that could be incorporated into the project are shown in Figure 2-6, *Architectural Design Simulation*. The building design themes would be characterized by simple and distinct cubic masses with interlocking volumes of wall planes, colors, textures, and materials to articulate façades and to create visual appeal. Design elements would be selected to be compatible in character, massing, and materials to promote a clean and contemporary feel.

To minimize energy consumption, as a Project Design Feature, each of the buildings would be provided with solar panels. The final location and orientation of the solar panels will be identified during the Site Plan Review.

The proposed project includes a decorative, six-foot Concrete Masonry Unit (CMU) wall that extends the length of the southern boundary of the project site, south of the parking areas and driving aisle. The proposed CMU wall will be single sided with the split face on the street/driving aisle side. Along the western and northern boundaries of the project side, along Lockheed Way and Blackbird Drive, are proposed three-foot high concrete block walls or landscaping.

In accordance with the PMC Table 17.66.010-1 (Development Standards – Industrial Zones), at least 10.3 percent of the project site would be landscaped. Landscaping would be provided around the perimeter of each building area and within parking areas. Table 2-6, *Landscape Summary*, identifies the amount of landscape and the percentage of site landscaping for each building lot. Additionally, landscaping would comply with the City's Joshua Tree and Native Desert Vegetation Preservation requirements and the City's Water Efficient Landscape requirements as specified within PMC Section 14.05 (Water Efficient Landscape). Compliance with the landscape requirements would be confirmed through the City's Site Plan Review process; refer to Figure 2-7, *Conceptual Landscape Plan*.

Table 2-6
Landscape Summary

Lot	Amount Landscaping	Percentage Site Landscaped
Lot 3	27,013 square feet	10.3 percent

Public Art

As specified within PMC Section 15.01.020 (Public Art in Private and Municipal Development Project Contribution Requirements), the proposed project would be required to provide for acquisition and installation of Public Art on the project site. The art would be installed on the project site that allows the art to be visible from a right-of-way or from other public property. The PMC identifies Public Art as art that encompasses all cultures through the broadest possible range of expression, media, and materials that may be permanent, fixed, temporary or portable, may be an integral part of a building, facility, or structure, and may be integrated with the work of other design professionals, including but limited to paintings, sculpture, graphic arts, mosaics, photography, mixed media, ceramics, light, sound, digital or electronic, environmental, video, media-based, time-based, web-based and new and emerging forms.

DRAINAGE PLAN

The proposed project has developed a drainage plan and Low Impact Water Quality Management Plan (LIWQMP) as depicted in Figure 2-8, *Water Quality Management Plan*. The LIWQMP would infiltrate long-term operation stormwater runoff to a required 85 percent of pre-developed condition. Approximately 12 percent of the site would consist of permeable landscape surfaces. Surface water flows not infiltrated into landscape areas, will be conveyed to a series of catch basins that will collect and pre-treat stormwater flows by bio-filtration filters in each catch basin before entering regional and local storm drain systems.

UTILITY PLAN

Wet Utility Providers

Wet utility providers for the project are shown in Table 2-7, *Wet Utility Providers*.

Table 2-7
Wet Utility Providers

Provider	Utility
Water Service	LA County Waterworks
Sewer Service	LA County Sanitation District

Source: Red Brick Solution; September 14, 2020.

Architectural Design Simulation

Figure 2-6

LANDSCAPE DESIGN CONCEPT

THIS LANDSCAPE DESIGN WILL PROVIDE SEASONAL INTEREST THROUGHOUT THE YEAR AND BE WATER EFFICIENT. PLANTS SELECTED HAVE BEEN PROVEN SUCCESSFUL IN THE ANTELOPE VALLEY AND HAVE BEEN ARRANGED IN A MANNER THAT WILL FILL IN AND LOOK PLEASING. PLANTS WITH SIMILAR WATER NEEDS WERE PUT IN THE SAME HYDROZONE.

AN ET OR SMART CONTROLLER WILL BE USED TO AUTOMATICALLY ADJUST THE WATERING SCHEDULE DAILY AND REDUCE WATER USE AND MAINTAIN PLANT HEALTH. SEPARATE VALVES FOR EACH HYDROZONE WILL BE USED TO APPLY THE WATER BASED ON PLANT NEED. TREES WILL BE WATERED SEPARATELY FROM SHRUBS AND GROUNDCOVER. DECOMPOSED GRANITE AND ROCK MULCH WILL BE USED TO PROVIDE A CLEAN FINISH TO THE SITE AND BE WATER EFFICIENT. THE REDUCED PRESSURE BACKFLOW DEVICE WILL BE INSTALLED AFTER THE POINT OF CONNECTION. A SEPARATE IRRIGATION WATER METER FOR LANDSCAPE AREA OVER 5000 SQ. FT. OR SUB-METER WILL BE INSTALLED AFTER THE P.O.C. SO IRRIGATION WATER USE CAN BE MONITORED SEPARATELY.

THIS WORK WILL MEET OR EXCEED THE STATE AND LOCAL CITY NEW WATER ORDINANCES.

SCALE: 1"=30'-0"
0 15' 30' 60' 90' 120' FEET
GRAPHIC BAR SCALE

PRE-APPLICATION LANDSCAPE REQUIREMENTS

- LIMIT SURROUNDING LANDSCAPE TO LOW GROWTH PLANTS NO HIGHER THAN TWO FEET (CP).
- SELECT TREES WITH A MINIMUM CANOPY HEIGHT OF SIX FEET THAT WILL NOT BLOCK AREA SURVEILLANCE OR LIGHT DISTRIBUTION. (CP)

PARKING LOT TREE REQUIREMENT

1 TREE PER 4 PARKING SPACES REQUIRED.
145 PARKING SPACES REQUIRES 37 TREES.
46 TREES PROVIDED.

PLANT KEY

TREES

TOTAL TREES: 46

Lagerstroemia indica 'Pecos'	Pecos Crape Myrtle (Pink) Deciduous, mod. water to 6'h x 6'w, maroon fall leaf color, pink flowers.

SHRUBS

TOTAL SHRUBS: 484

Agave havardiana	Havard Agave Evergreen, low water, moderate growth, forms single compact symmetrical rosette to 2'h x 4'w, leaves silver gray, very thick at base, flowers spikes to 15' with greenish yellow bloom.
Baccharis pilularis 'Twin Peaks'	Twin Peaks Dwarf Coyote Bush Evergreen, low water, sun-part shade, mod. growth to 1-2'h x 6'w, small dark green leaves, needs shearing once a year in early spring. Deer resistant.
Chrysactinia mexicana	Damianita Evergreen, low water, full sun, slow growth to 2'h x 2'w, needle like green leaves, yellow flowers in spring & fall, very drought tolerant.
Euonymous japonicus 'Green Spire'	Green Spire Euonymous Evergreen, mod. water, part to full sun, columnar growth to 6-8'h x 2'w, deep green foliage, takes shearing into formal hedge.
Hesperaloe parviflora	Red Yucca, Red Hesperaloe Evergreen, low water, to 2'h x 3-4'w, gray-green leaf clumps bearing bright red flowers on 5' spikes, spring-summer. Remove spent flower spikes to prolong bloom time.
Leucophyllum zygophyllum 'Cimarron'	Cimarron Sage Semi-evergreen, low water, full sun, dense growth to 3'h x 3'w, cupped gray-green foliage, lt. blue flowers, spring-fall.
Salvia greggii Red	Red Autumn Sage Semi-evergreen, low water, to 2-3'h x 2-3'w, green leaves, red flowers, spring-fall. Prune in early spring.
Senna wislizenii (Cassia)	Shrubby Senna Deciduous, low water, rounded habit to 5-6'h x 5-10'w, bright green leaves, yellow flowers, early summer to fall. Good in high desert.
Teucrium chamaedrys (x lucidrys)	Creeping Germander, Wall Germander Evergreen, low water to 0', 1'h x 3'w trailing medium texture, med. green foliage, red-purple or white flowers, spring-summer, full sun. Attracts bees.

BOULDERS

	24" MINIMUM SIZE BOULDER. BURY 1/3 FOR A NATURAL LOOK. SEE PLAN FOR LOCATIONS.	QTY: 10
	30" MINIMUM SIZE BOULDER. BURY 1/3 FOR A NATURAL LOOK. SEE PLAN FOR LOCATIONS.	QTY: 8

GROUNDCOVER

	DECOMPOSED GRANITE: 3" LAYER MECHANICALLY COMPACTED AND STABILIZED. NO WEED BARRIER FABRIC	28,880 SQ. FT.
+ + + +	ROCK MULCH: 3/4" CRUSHED ROCK, TAN COLOR	1665 SQ. FT.
	RIVER ROCK: 1-3" ARIZONA RIVER ROCK	2,420 SQ. FT.

TOTAL LANDSCAPE AREA (SQ. FT.): 32,965

PER CONDITIONS OF APPROVAL THE LANDSCAPE TREES SHALL NOT EXCEED 6' IN HEIGHT AND THE SHRUBS SHALL NOT EXCEED 2' IN HEIGHT. A HEDGE TO BLOCK HEADLIGHTS ONTO THE STREET HAS BEEN PROVIDED.

Source: Sue Mathis Landscape Design; June 21, 2023.

Conceptual Landscape Plan

Figure 2-7

Dry Utility Providers

Dry utility providers for the project are shown in Table 2-8, *Dry Utility Providers*.

Table 2-8
Dry Utility Providers

Provider	Utility
Electrical Service	Southern California Edison
Gas Service	Southern California Gas Company
Communication	Spectrum

2.2.2 Project Phasing and Construction

Phasing

The project will be completed in two phases. Building A will be constructed in Phase 1 and will be self-sufficient, meaning that all improvements including grading, parking, access, circulation, along with infrastructure shall be completed during this Phase. The vertical construction for the second building will follow as Phase 2, with timing depending on market conditions. Construction of the project shall be in compliance with PMC Section 8.28.030 (Construction Noise Prohibited in Residential Zones). Construction hours could occur Monday through Saturday, 6:30 a.m. to 8:00 p.m. with no construction on Sundays. Construction duration of Phase 1 is anticipated to be ten months and Phase 2 is anticipated to be eight months. The opening year for Phase 1 of the project would be 2025.

Construction

The proposed project involves the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would be developed in the near future. The construction equipment shown in Table 2-9, *Construction Equipment Mix*, reflects the mix of equipment to construct the proposed project and the additional 200,000 square feet of industrial building area on nearby Lot 12, Lot 16, and Lot 20. As shown in Table 2-9, project construction stages would include site preparation, import of fill soils, grading, building construction, underground utility construction, export of lot spoils and street paving.

Table 2-9
Construction Equipment Mix

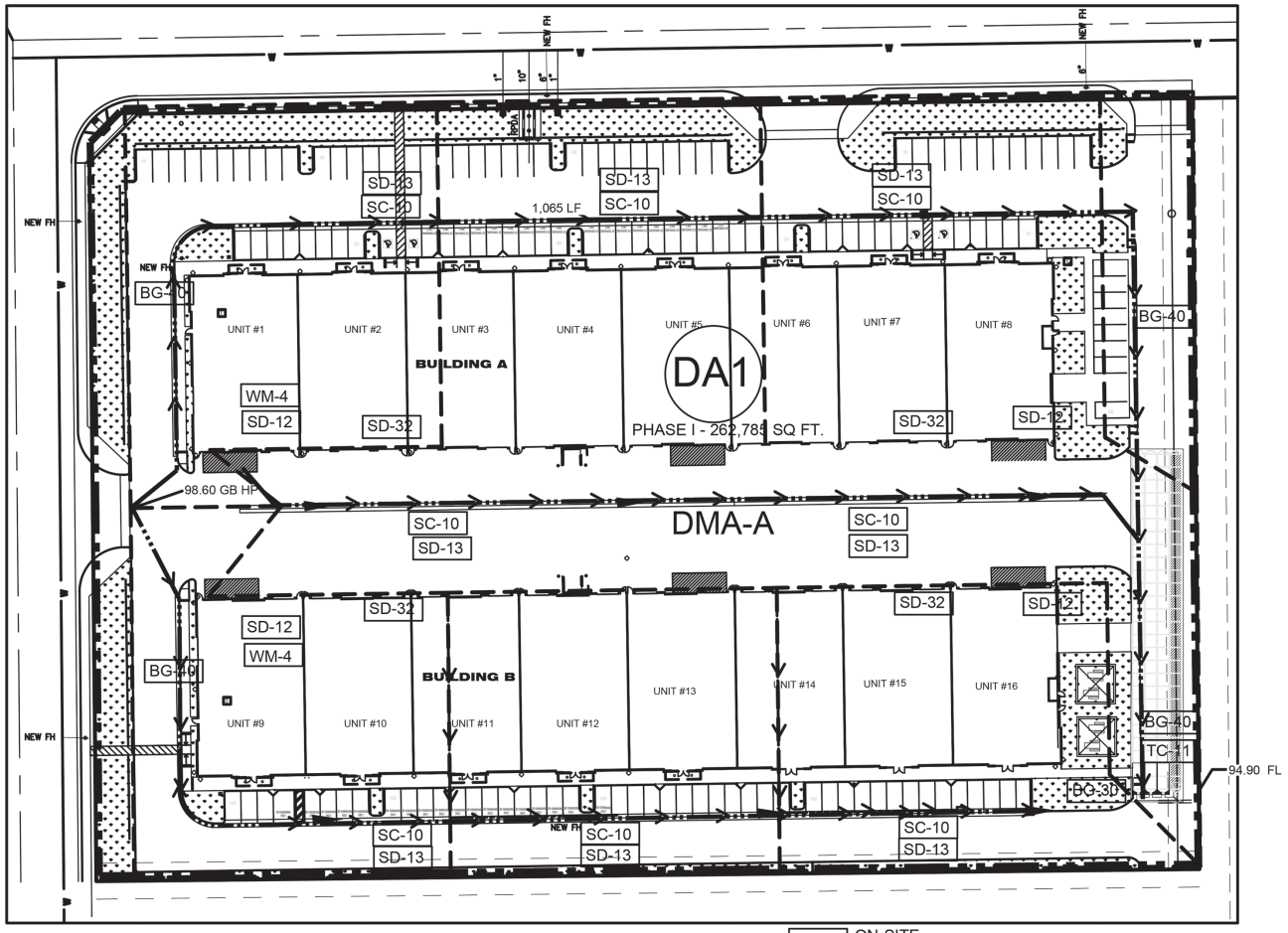
Phase	Phase Duration (Days)	Equipment	Amount	Hours/Day
Site Preparation	7	Rubber Tired Dozers	3	8
		Tractors/Loaders/Backhoes	4	8
Grading	28	Excavators	2	8
		Graders	1	8
		Rubber Tired Dozers	1	8
		Scrapers	2	8
		Tractors/Loaders/Backhoes	2	8
Building Construction	286	Canes	1	7
		Forklifts	3	8
		Generator Sets	1	8
		Tractors/Loaders/Backhoes	3	7
		Welders	1	8
Paving	14	Pavers	2	8
		Paving Equipment	2	8
		Rollers	2	8
Architectural Coating	14	Air Compressors	1	6

Grading

The Grading Plan for the project is shown in Figure 2-9, *Preliminary Grading Plan*. The proposed project at buildout would require 25 cubic yards of cut and 18,223 cubic yards of fill. A total of 18,698 cubic yards of fill material would need to be imported onto the site. A total of 1,558 truck hauling trips would be phased over the construction period for the project as shown in Table 2-10, *Earthwork Quantities*.

Table 2-10
Earthwork Quantities

Lot Number	Cut (Cubic Yards)	Fill (Cubic Yards)	Import (Cubic Yards)	Total Round Truck Trips
Lot 3	25	18,223	18,698	1,558



TC-11 ON-SITE
INFILTRATION /RETENTION
BASIN - 0.448 AC - FT
0.292 AC-FT REQ'D INFILTRATION

40' 0' 40' 80'

(IN FEET)
1 inch = 80 ft.

LEGEND:

DA1 — DRAINAGE AREA

DMA-A — DRAINAGE MANAGEMENT AREA - A

XX.XX — SPOT ELEVATION

OVERALL BOUNDARY
SUBAREA BOUNDARY
SUBAREA FLOWLINE

EG	EXISTING GRADE
FG	FINISH GRADE
FS	FINISH SURFACE
FF	FINISH FLOOR
IE	INVERT ELEVATION

LANDSCAPE AREA

DMA-A

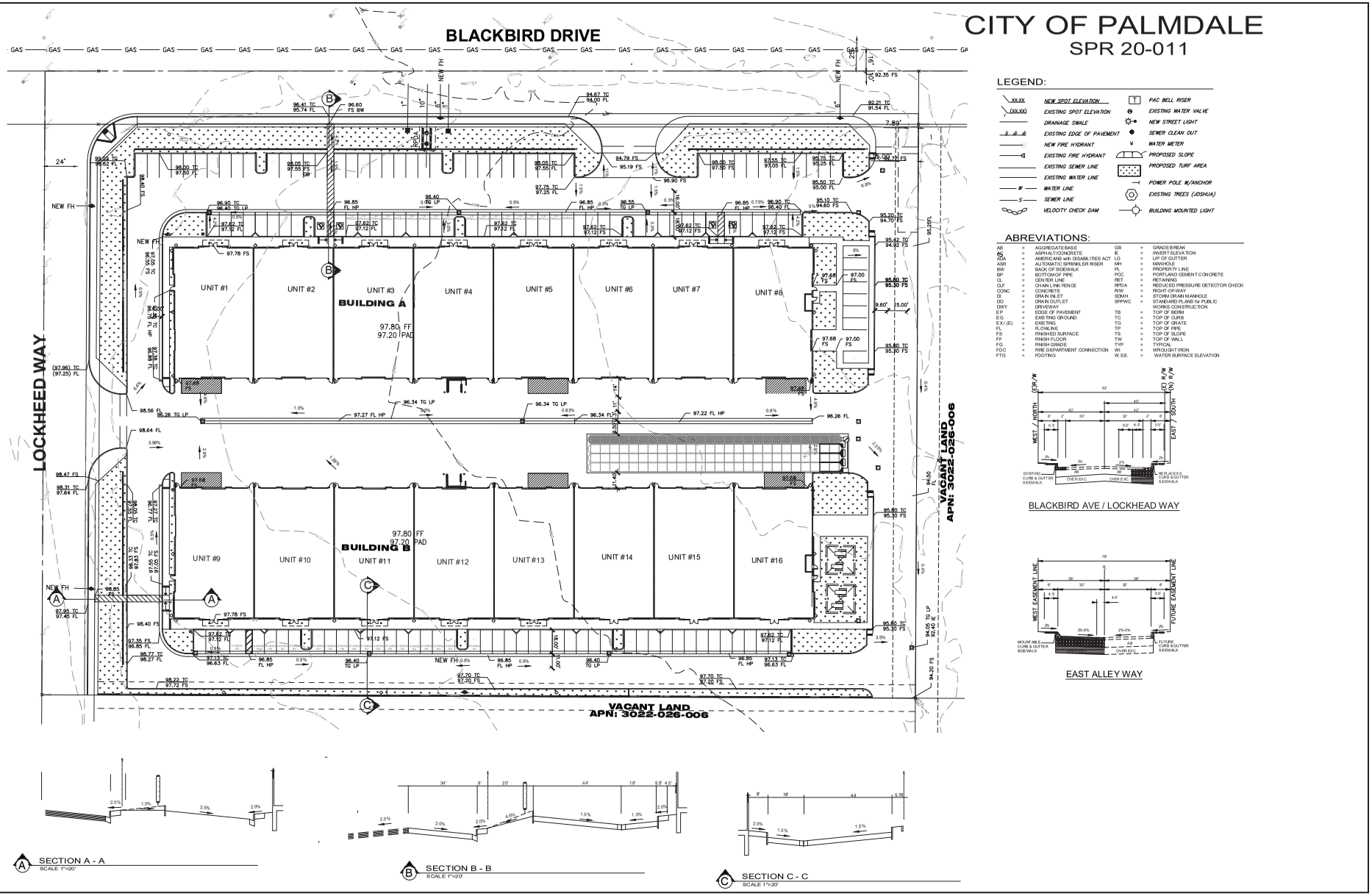
AREA = 231,443 SF IMPERMEABLE
31,342 SF PERMEABLE = 11.88%
262,785 SF TOTAL
PARKING TREES
PARKING AREA = 143,752 SF
P-LANDSCAPING = 14,162 SF = 9.85%

MAINTENANCE BMP'S

- TC-11 — INFILTRATION BASIN
- SD-12 — EFFICIENT IRRIGATION
- SD-13 — STORM DRAIN SIGNAGE
- SD-32 — TRASH ENCLOSURE
- SC-10 — CATCH BASIN O&M
- BG-40 — LANDSCAPE INSPECTION O&M
- BG-30 — FOOD PREPARATION AREA
- WM-4 — SPILL KIT INSPECTRION O & M

Source: Red Brick Solution; June 24, 2023.

Figure 2-8



Source: Red Brick Solution; June 22, 2023.

PBP INDUSTRIAL PROJECT | SPR NO. 20-011
Initial Study/Mitigated Negative Declaration

Preliminary Grading Plan

Figure 2-9

2.2.3 Required Project Approvals

The City of Palmdale has discretionary authority over the proposed project. The project would be subject to various City approvals and permits including, but not limited to:

- Site Plan Review (SPR);
- Grading Permit; and
- Building Permit.

Other agencies may require permits and/or approvals include, but not limited to:

- Antelope Valley Air Quality Management District (AVAQMD);
- Los Angeles County Fire Department;
- Los Angeles County Sanitation District;
- Los Angeles County Waterworks;
- State Water Resources Control Board; and,
- California Department of Fish and Wildlife (CDFW).

3.0 ENVIRONMENTAL CHECKLIST

3.1 Background

1. Project Title:

PBP Industrial Project
Site Plan Review 20-011

2. Lead Agency Name and Address:

City of Palmdale
Department of Economic and Community Development
Planning Division
38250 Sierra Highway
Palmdale, California 93550
Contact: Brenda Magaña, Planning Manager

3. Project Location:

The project site consists of one lot (approximately six acres), Assessor Parcel Number (APN) 3022-026-003, hereinafter referred to as the project. The project is generally located east of Lockheed Way, west of 10th Street East, south Blackbird Drive and north of East Rancho Vista Boulevard (Avenue P).

4. Project Sponsor's Name and Address:

Patriot Construction and Development
445 West Palmdale Boulevard
Palmdale, CA 93551
Robert Sarkissian, President
Telephone: (818) 212-9346
Email: Robert.S@PatriotDevelopments.com

Aeropatriot LLC
445 West Palmdale Boulevard, Suite P
Palmdale CA 93551
Robert Sarkissian, President
Telephone: (818) 212-9346

SCT1
PO Box 570513
Tarzana, CA 91357
Sar Kotoyan, Controller
Telephone: (310) 849-0560

5. General Plan Land Use Designation:

Lot 3 (APN 3022-026-003) – IND (Industrial)

6. Zoning Designation:

Lot 3 (APN 3022-026-003) – HI (Heavy Industrial)

7. Description of Project:

The proposed project consists of the construction and operation of two industrial buildings totaling approximately 118,200 square feet of building area and associated improvements including, landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land.

8. Surrounding Land Uses and Setting:

The project site is currently undeveloped and situated within a suburban setting. To the north of the project area is the Lockheed Martin Aeronautics facility. The remaining surrounding area is undeveloped.

Land Uses Surrounding the Property

Direction	Existing Land Use	Existing General Plan Land Use	Existing Zoning
North	Lockheed Martin Aeronautics, across Blackbird Drive	Lockheed Specific Plan	Lockheed Specific Plan
East	Vacant Land	IND (Industrial)	HI (Heavy Industrial)
South	Vacant Land	IND (Industrial)	HI (Heavy Industrial)
West	Vacant Land, across Lockheed Way	IND (Industrial)	HI (Heavy Industrial)

9. Other public agencies whose approval is required:

Please refer to Section 2.2.3, *Required Project Approvals*.

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

Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill [AB] 52), the City of Palmdale has conducted the required outreach to the applicable Native American tribes. This process is further discussed in Section 4.18.

3.2 Environmental Factors Potentially Affected

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

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

3.3 Lead Agency Determination

Based on the analysis conducted in this Initial Study, the City of Palmdale (City) as the Lead Agency, has made the following determination:

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 or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to the State CEQA Guidelines and the County's adopted Local CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. Minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA Section 15164).	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or substantial changes have occurred requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.	☐

This Initial Study was prepared by:

Julie Beeman — February 20, 2024

Julie Beeman
Preparer for VCS Environmental

Brenda A. Magaña — 2/15/2024

Brenda Magaña
Planning Manager
City of Palmdale

3.4 Evaluation of Environmental Impacts

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

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

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

"Negative Declaration: Less Than Significant Impact with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

Earlier analyses may be used where an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant Impact With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

The explanation of each issue should identify:

a) The significance criteria or threshold, if any, used to evaluate each question; and

b) The mitigation measure identified, if any, to reduce a significant or potentially significant impact to a less than significant level.

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

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are identifiable quantitative, qualitative or a performance level for a particular environmental effect. Non-compliance with a threshold means the effect will normally be determined to be significant and, conversely, compliance with a threshold means the effect will normally be less than significant (Guidelines Section 15064.7).

The City relies upon the specific questions relating to environmental impact areas listed in Appendix G of the State CEQA Guidelines to determine a level of significance.

ENVIRONMENTAL BASELINE

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. Guidelines Section 15125(a) states in pertinent part that the existing environmental setting will normally constitute the baseline physical conditions by which a lead agency will determine if an impact is significant.

Therefore, the environmental baseline for the project constitutes the existing physical conditions as they exist at the time that the environmental process commenced (August/2020).

4.0 ENVIRONMENTAL ANALYSIS

A Mitigated Negative Declaration has been prepared for the proposed project because the Initial Study concluded that the proposed project would not result in significant unavoidable environmental impacts once mitigation measures are implemented. The following Sections 4.1 through 4.21, provide a discussion of the potential project impacts as identified in the Initial Study/Mitigated Negative Declaration (IS/MND). Explanations are provided within each corresponding impact category in this analysis.

4.1 Aesthetics

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

Less Than Significant Impact: The project would not have a substantial adverse effect on a scenic vista. For purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public and is generally designated by public agencies to provide for their preservation. According to the City's General Plan, the project site does not contain any identified scenic resources or public vistas.

The General Plan does recognize distant scenic vistas, including distant views of the San Gabriel Mountains, Sierra Pelona Mountains, and Tehachapi Mountains. The project would comply with the Zoning Code height requirements and would not substantially obstruct or modify distant scenic views. Potential impacts on scenic vistas would be less than significant.

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

No Impact: The project would not substantially damage scenic resources within a state scenic highway. The State Scenic Highway Program was established by the California Department of Transportation (Caltrans) to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to state highways. Highways may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. According to Caltrans, there are no designated or eligible state scenic highways within the viewshed of the proposed project. The closest state scenic highway is Los Angeles Crest Highway (State Route 2) which is approximately 25 miles south of Palmdale and Interstate 210 which is approximately 26 miles south of Palmdale. The project site does not fall within the viewshed of any state scenic highway. Therefore, no impacts to scenic resources along a state scenic highway would occur.

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

Less Than Significant Impact: The proposed project would not conflict with applicable zoning and other regulations governing scenic quality. The project is currently undeveloped and in an area that is transitioning from vacant, undeveloped land to urbanized land uses. The relevant planning document regulating scenic quality for the project area would be the City's General Plan Land Use and Community Design Element and Zoning Code.

LAND USE COMMUNITY DESIGN ELEMENT

The Community Design component of the Land Use Element addresses community design, introducing community character and the built environment as critical components of Palmdale's urban form. The Community Design Element establishes policies to shape the City's overall form and appearance. The policies and guidelines contained in the Community Design Element are intended to improve the functional and aesthetic quality of development projects in the City. These policies would include:

Policy LUD-4.1: *Quality Construction*. Use simple, urban building forms made with permanent materials with high quality detailing that stands the test of time.

Policy LUD-4.2: *Massing Techniques*. Use building organization and massing to derive scale and articulation rather than surface ornamentation.

Policy LUD-4.3: *Long-Lasting Building Materials*. Convey façade articulation through the strength, depth, and permanence of building materials. Thinner cladding materials, such as stucco, masonry veneers, and wood or simulated wood, may be used when finished to appear as durable and authentic as the materials they simulate.

Policy LUD-4.4: *Façade Increments*. Articulate residential building façades with smaller-scale increments than office and industrial building facades.

The project has been designed to meet the intent of the urban design policies provided in the Community Design Element. The architectural design of the proposed project would consist of tilt-up concrete buildings that would reflect a contemporary design within a business park setting. The design incorporates a variety of buildings to create visual interest including articulation of surfaces, varied rooflines, and window treatments to soften the mass of the building on all four sides. As shown in Figures 4.1-1a through 4.1-1c, *Building Elevations*, the façade will be painted on all sides and will contain architectural elements painted in accent colors to create visual interest. Metal awnings painted in accent colors would be incorporated.

ZONING CODE

The City of Palmdale Zoning Map identifies the project site as HI (Heavy Industrial). The HI zone was established to create, preserve, and enhance areas for light industrial uses and associated operations, including assembly, fabrication, packaging, and transport, where operations are conducted primarily indoors. As shown in Table 4.1-1, *Site Development Standards – Heavy Industrial (HI)*, the proposed project would be consistent with development standards.

Table 4.1-1
Site Development Standards – Heavy Industrial (HI)

Site Development Standard	Requirement
Minimum Lot Size	20,000 square feet
Maximum Height	50 feet
Landscaping	10 percent
Parking (Per PMC Table 17.87.060-1, Indoor Warehousing, Storage, Wholesaling, and Distribution)	0.5 spaces/1,000 square feet or 1 space/employee whichever is less, plus space to accommodate all service trucks/vehicles

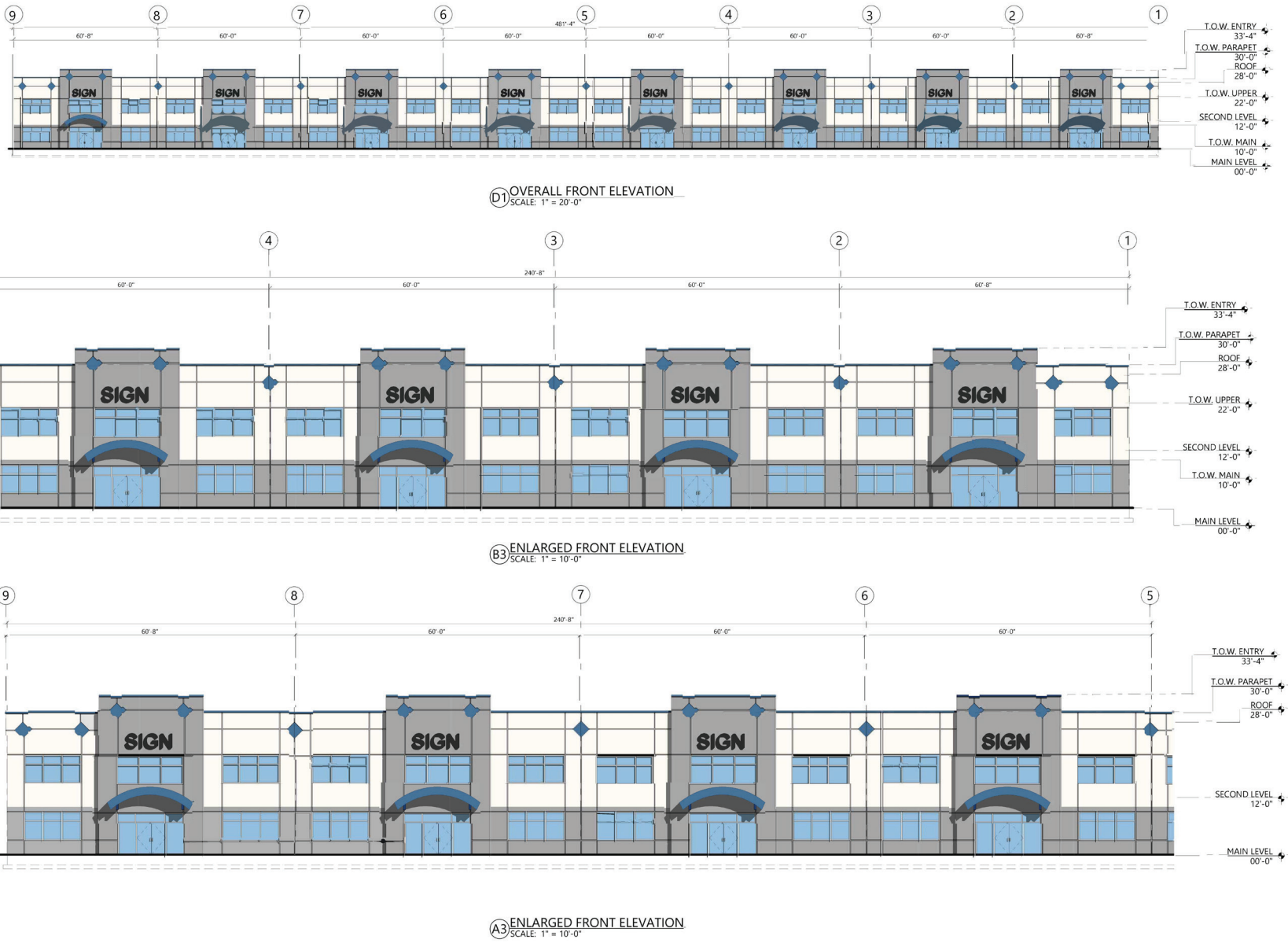
SITE PLAN REVIEW

As specified within PMC Section 17.21.010 (Site Plan Review – Purpose), any new construction of a commercial, industrial, multiple-family residential, or institutional use (including public and quasi-public facilities), shall require approval of a Site Plan Review (SPR) application. The intent of the SPR process is to ensure that the project building layout, size, shape, scale, mass, height, architectural design, architectural components, materials, colors, landscaping, and other aspects of the physical plan for the development project are compatible with neighboring developments, are appropriate for the site, and achieve the highest level of design that is feasible for the project. Table 4.1-2, *Site Plan Review*, identifies the required criteria for SPR approvals and the proposed project compliance.

Table 4.1-2
Site Plan Review

Site Plan Review Approval Criteria	Project Compliance
17.21.060 Required Findings for Approval No application for Site Plan Review shall be approved by the Review Authority unless the design and layout of the proposed project or structures, in its final submitted form, or as conditioned, meets all of the following criteria, and the development is consistent with: A. The City's General Plan and any applicable Specific Plan; B. The development standards set forth in this Ordinance; and, C. Any applicable design guidelines.	The proposed project is consistent with the General Plan, as described in Section 4.11, *Land Use and Planning* and shown in Table 4.11-1, *General Plan Consistency Analysis*. Additionally, the project has been designed to meet the intent of the urban design policies in the Community Design Element and the Land Use Element.
The design of the structures, including layout, size, shape, mass, height, architectural elements, and other design factors are appropriate to the size and shape of the lot and are compatible and harmonious with the uses and structures on adjacent properties.	Except for the Lockheed Martin property located to the north, the project site is surrounded by undeveloped parcels. The proposed project has a modern contemporary design within a business park setting. The project's design elements meet the intent of the Community Design Element. Future development in the area would also be required to be designed in accordance with the Community Design Element which would ensure the project is aesthetically compatible.
The design of the project will provide a desirable environment for its occupants, the visiting public, and its neighbors through the use of high-quality building materials, design elements, colors textures and landscape features.	The design incorporates a variety of buildings to create an aesthetic effect including articulation of surfaces, varied rooflines, and window treatments to soften the mass of the building on all four sides. Additionally, 10.3 percent of the project site would be landscaped around the perimeter of each building and within parking areas. The project would also be required to provide for acquisition and installation of Public Art on the project site that be visible from a right-of-way or other public property, creating additional visual interest to the project site.
The building materials and design features are of a quality and type that will remain aesthetically appealing over time without necessitating frequent and unrealistic maintenance or replacement.	The project proposes durable materials that would be aesthetically pleasing for the life of the project and would not require frequent maintenance or replacement.

The design of the project, in compliance with the City's General Plan and PMC, would not degrade the existing visual character of the project area and would not conflict with applicable zoning and other regulations governing scenic quality. Potential impacts would be less than significant.

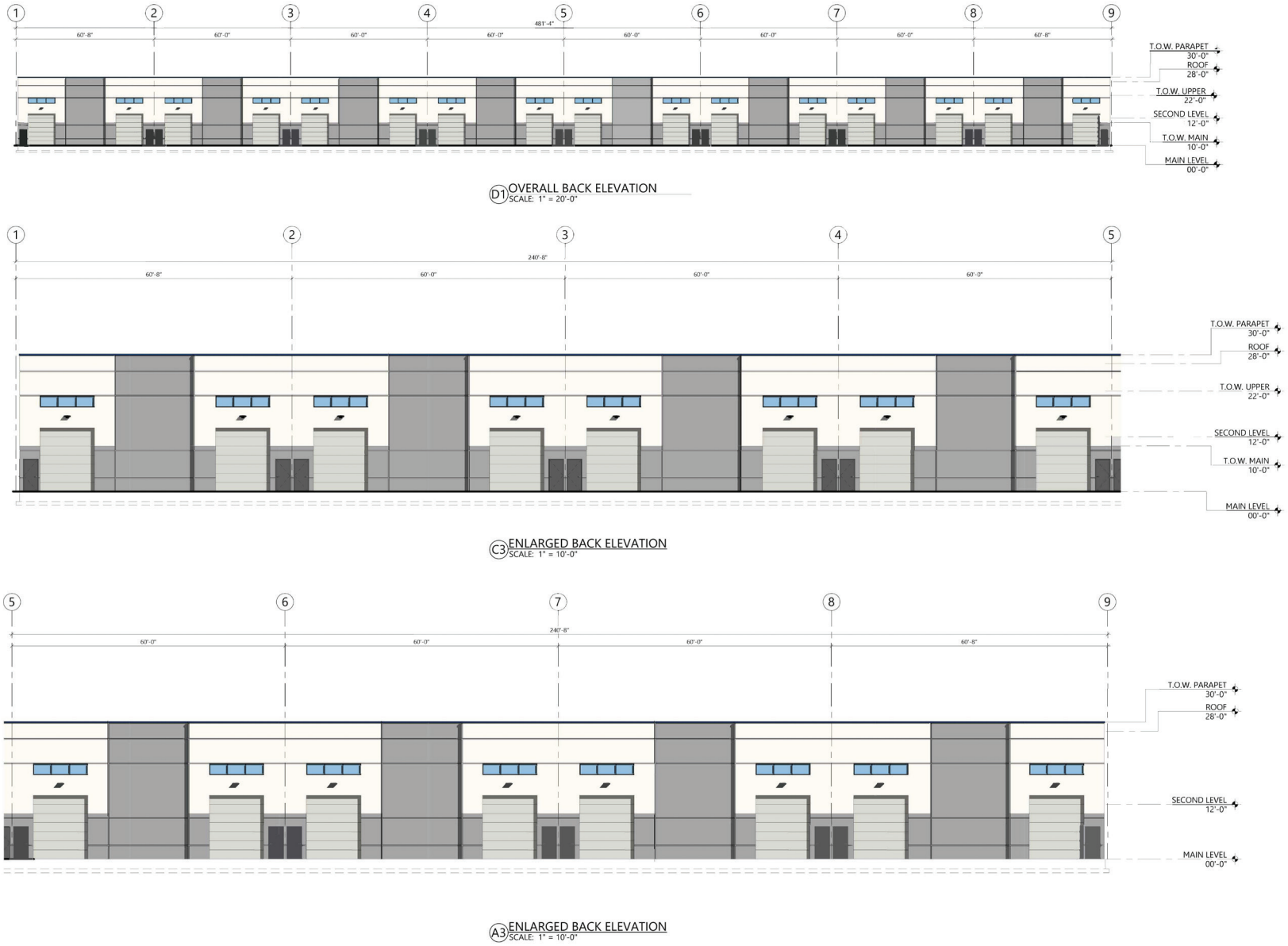


Source: Cartwright; June 15, 2023.

PBP INDUSTRIAL PROJECT | SPR NO. 20-011
Initial Study/Mitigated Negative Declaration

Building Elevations

Figure 4.1-1a

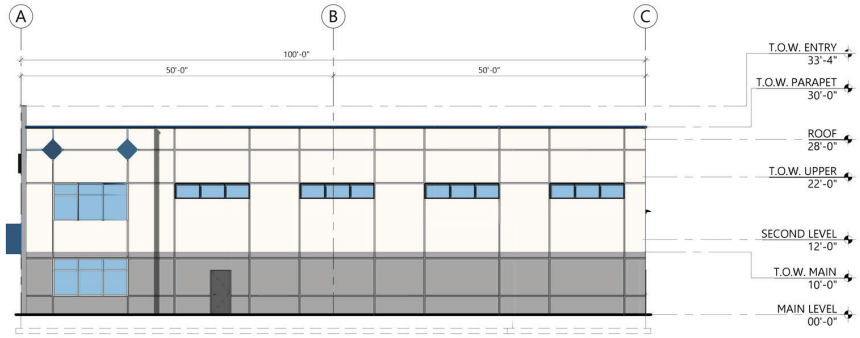


Source: Cartwright; June 15, 2023.

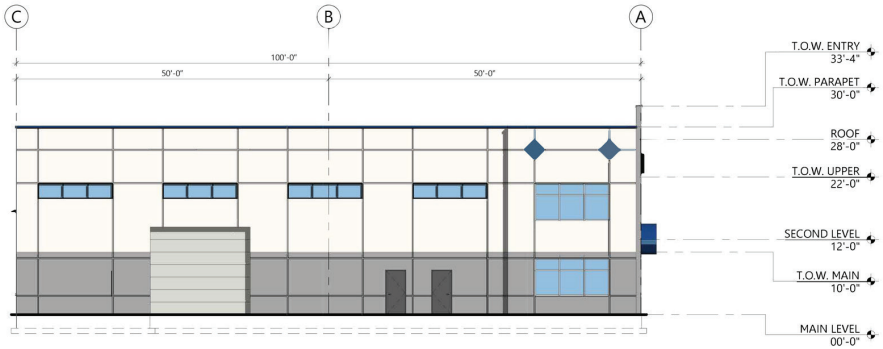
PBP INDUSTRIAL PROJECT | SPR NO. 20-011
Initial Study/Mitigated Negative Declaration

Building Elevations

Figure 4.1-1b



C1 SIDE ELEVATION (BLD-A-WEST)
SCALE: 1" = 10'-0"



C5 SIDE ELEVATION (BLD-A-EAST)
SCALE: 1" = 10'-0"

Source: Cartwright; June 15, 2023.

PBP INDUSTRIAL PROJECT | SPR NO. 20-011
Initial Study/Mitigated Negative Declaration

Building Elevations

Figure 4.1-1c

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

Less Than Significant Impact: The construction activities for the proposed project would occur during the day. Therefore, no temporary nighttime construction lighting impacts would occur.

The operation of the proposed project would be required to comply with general requirements for outdoor lighting provided in PMC Section 17.86.030. The Zoning Code requirements include:

1. Dark-Sky Compliance. In accordance with the International Dark-Sky Association recommendations, the color temperature of outdoor lighting shall not exceed 3,000 Kelvins.
2. Nuisance Prevention. All outdoor lighting shall be designed, located, installed, directed downward or toward structures, fully shielded, and maintained in order to prevent glare, light trespass, and light pollution and away from adjoining properties and public rights-of way, so that no light fixture directly illuminates an area outside of the project site intended to be illuminated.
3. Light Trespass. All lights shall be directed, oriented, and shielded to prevent light trespass or glare onto adjacent properties. The light level at property lines shall not exceed one-quarter foot candles.
4. Fixture Types. All luminaries shall meet the most recently adopted criteria of the Illuminating Engineering Society of North America (IESNA) for “Cut Off” or “Full Cut Off” luminaries.
5. Design. All light fixtures for non-residential projects visible to the general public shall be consistent with the overall architectural style of the project with respect to design, materials, color, and color of light.
6. Attachment. Lighting fixtures on buildings shall be attached only to walls or eaves, and the top of the fixture shall not exceed the height of the parapet, roof, or eave of the roof.
7. Accent Lighting.
    a. Architectural features may be illuminated by uplighting, provided that the lamps are low intensity, and fully shielded such that no glare or light trespass is produced.
    b. Exposed neon strips, chip strips, and LED lighting are allowed in the non-residential zones to enhance the architectural features of the building.
    c. Low-voltage string ornamental lighting may be used in mixed-use, commercial/office, and PF (Public Facilities) zones to accentuate landscaping or decorative architectural features, provided the fixtures are property maintained, securely attached to the structure, and provide architectural lighting to the building facade.
8. Security Lighting. Security lighting fixtures shall not project above the fascia or roof line of the building on which they are mounted. All security lighting fixtures shall be shielded and aimed so that the illumination is directed only to the designated area and shall not cast direct light on other areas. The use of flood-lighting fixtures shall be prohibited. Security lighting fixtures shall be included in the photometric lighting plan.
9. Signs. Lighting of signs shall be in compliance with PMC Chapter 17.88 (Signs).

10. Maintenance. Fixtures and lighting shall be maintained in good working order and in a manner that serves the original design intent.

    a. Lighting fixtures shall be weather and vandal resistant.
    b. Burnt-out and broken light bulbs shall be replaced.
    c. Lighting fixtures shall remain free of graffiti and rust.
    d. Painted light fixtures shall be maintained to minimize chipping or peeling.

11. Timing Controls. All outdoor lighting in non-residential zones shall be on a time clock or photo-sensor system and turned off during daylight hours and during hours when the building(s) is not in use and the lighting is not required for security.

12. Energy-Efficient Fixtures Required. Outdoor lighting shall utilize energy-efficient fixtures and lamps such as metal halide, hard-wired compact fluorescent, LED, or other lighting technology that is of equal or greater efficiency. All new outdoor lighting fixtures shall be energy efficient with a rated average bulb life of not less than 10,000 hours.

13. Prohibited Outdoor Lighting: Searchlights, laser source lights, or any similar high-intensity light, except for emergency use by police or fire personnel at their discretion, or for approved temporary lighting for a special event approved by the City.

PARKING

F. Minimum Lighting Requirements

    1. Parking Areas. Lighting in parking, garage, and carport areas shall be maintained with a minimum of one-half foot candle illumination at the darkest spot on the parking area during hours of darkness. There shall be no more than a four-to-one (4:1) average illumination ratio (average to minimum) level of illumination shown between lighting fixtures. The maximum average illumination across the parking lot shall be no more than 2.4-foot candles. All lighting shall be on a time-clock or photo-sensor system. Lighting used to illuminate parking areas shall be designed and located to prevent light trespass or glare, pursuant to PMC Section 17.86.030.D.2 (Nuisance Prevention).

The project is required to comply with PMC Section 17.86.030 (Outdoor Lighting) and would ensure that all exterior lighting would be confined to the property and spillover lighting impacts to adjoining properties would be avoided. Potential light and glare impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

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4.2 Agricultural and Forestry Resources

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

No Impact: Implementation of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural uses. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land use and to help preserve areas of Important Farmland. It divides the state's land into eight categories of land use designation based on soil quality and existing

agriculture uses to produce maps and statistical data. These maps and data are used to help preserve productive farmland and to analyze impacts on Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. The State of California Farmland Mapping and Monitoring Program indicates that there is no Prime Farmland, Unique Farmland or Farmland of Statewide Importance designated on the project site. Therefore, no impacts to Prime Farmland, Unique Farmland or Farmland of Statewide Importance would occur.

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

No Impact: Implementation of the proposed project would not conflict with existing zoning for agricultural use or the Williamson Act contract. The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, allows local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Parcels with active Williamson Act contracts may not be used for any purpose other than agriculture or open space until the contract has been terminated either through the non-renewal process or payment of a cancellation fee. The project site zoning designation is HI (Heavy Industrial). The proposed project would not conflict with any lands zoned for agricultural land uses. According to the property title, the project site is not under a Williamson contract. Implementation of the proposed project would have no impact regarding potential conflicts with existing agricultural zoning or Williamson Act contracts on the property.

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

No Impact: The proposed project would not conflict with existing zoning for, or cause rezoning or, 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)). The proposed project is within the HI zone and would be consistent with the HI zoning and would not cause a rezone of lands that are zoned for forest land or timberland. Therefore, no impacts to forest land, timberland or lands zoned for timberland would occur.

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

No Impact: The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. There are no existing forest lands or timberland resources on the property and the project site is not zoned for timberland production. Implementation of the proposed project would not result in the loss of forest land.

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

No Impact: There are no agricultural resources or forestland within the project site. The proposed project would not involve other changes in the existing environment, which due to their location or

nature, could result in conversion of Farmland, to non-agricultural use for conversion of forest land to non-forest use. The construction and operation of the proposed project would be confined to the project site and would not cause any onsite or offsite conversion of farmland or forest land to non-agriculture uses or non-forest uses.

MITIGATION MEASURES

No mitigation measures are required.

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4.3 Air Quality

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on an Air Quality and Greenhouse Gas Impact Study prepared by RK Engineering Group, Inc. on March 29, 2023. The report is presented in Appendix A, *Air Quality, Greenhouse Gas, and Energy Impact Study.*

The air quality analysis evaluates the construction and operation of two industrial buildings totaling approximately 118,200 square feet of building area and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3). To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

BACKGROUND

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions).

Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of ozone, nitrogen oxides (NO_X,), carbon monoxides (CO), sulfur oxides (SO_X,), lead (Pb), and particulate matter (PM). The ozone precursors consist of NO_X and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants “criteria” air pollutants because it regulates them by

developing human health based and/or environmentally based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides: Nitrogen oxides (NO_X) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_X are colorless and odorless, concentrations of NO_2 can often be seen as a reddish-brown layer over many urban areas. NO_X forms when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_X are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_X reacts with other pollutants to form ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which causes respiratory problems. NO_X and the pollutants formed from NO_X can be transported over long distances, following the patterns of prevailing winds.

Ozone: Ozone (O_3) is not usually emitted directly into the air but in the vicinity of ground-level and is created by a chemical reaction between NO_X and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_X and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant.

Carbon Monoxide: Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

Sulfur Oxides: Sulfur oxides (SO_X) gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SO_X dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead: Lead (Pb) is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers.

Particulate Matter: Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of several components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM_{10}), also known as *Respirable Particulate Matter,* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter ($PM_{2.5}$) that are

also known as *Fine Particulate Matter* have been designated as a subset of PM_{10} due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds: Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to the formation of O_3 are referred to and regulated as volatile organic compounds (VOCs), also referred to as reactive organic gases. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint. VOCs are not classified as a criteria pollutant since VOCs by themselves are not a known source of adverse health effects.

Other Pollutants of Concern

Toxic Air Contaminants: In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases.

Asbestos: Asbestos is listed as a TAC by the California Air Resources Board (CARB) and as a HAP by the United States Environmental Protection Agency (EPA). Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining.

Regulatory Setting

Air districts have the primary responsibility to control air pollution from all sources other than those directly emitted from motor vehicles, which are the responsibility of the CARB and the EPA. Air districts adopt and enforce rules and regulations to achieve state and federal ambient air quality standards and enforce applicable state and federal law.

The project area is located in the Antelope Valley Air Quality Management District (AVAQMD). The AVAQMD has jurisdiction over the northern, desert portion of Los Angeles County. This region includes the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base. The Kern County-Los Angeles County boundary forms the northern boundary of the AVAQMD; the San Bernardino-Los Angeles County boundary forms the eastern boundary.

FEDERAL REGULATION

The Federal Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The Federal Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants considered harmful to public health and the

environment. The State of California has also established additional and more stringent California Ambient Air Quality Standards (CAAQS) in addition to the seven criteria pollutants designated by the federal government; refer to Table 4.3-1, *Federal and State Ambient Air Quality Standards*.

AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety. The standards are divided into two categories, primary standards and secondary standards. Primary standards are implemented to provide protection for the "sensitive" populations such as those with asthma, or the children and elderly. Secondary standards are to provide protection against visible pollution as well as damage to the surrounding environment, including animals, crops, and buildings.

Table 4.3-1
Federal and State Ambient Air Quality Standards

Air Pollutant	Averaging Time	Federal Standard (NAAQS)	California Standard (CAAQS)
Ozone	1 Hour	--	0.09 ppm
	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	35 ppm	20 ppm
	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.100 ppm	0.18 ppm
	Annual	0.053 ppm	0.030 ppm
Sulfur Dioxide (SO_2)	1 Hour	0.075 ppm	0.25 ppm
	3 Hour	0.5 ppm[1]	--
	24 Hour	--	0.04 ppm
Particulate Matter (PM_{10})	24 Hour	150 µg/m[1]	50 µg/m[1]
	Mean	--	20 µg/m[1]
Particulate Matter ($PM_{2.5}$)	24 Hour	35 µg/m[1]	--
	Annual	12 µg/m[1]	12 µg/m[1]
Lead	30-day	--	1.5 µg/m
	Quarter	1.5 µg/m	--
	3-month average	0.15 µg/m	--
Visibility reducing particles	8 Hour	--	0.23/km extinction coefficient (10-mile visibility standard)
Sulfates	24 Hour	--	25 µg/m
Vinyl chloride	24 Hour	--	0.01 ppm
Hydrogen sulfide	24 Hour	--	0.03 ppm

Abbreviations: ppm = parts per million of air, by volume; µg/m3 = micrograms per cubic meter; Annual = Annual Arithmetic Mean; 30-day = 30-day average; Quarter = Calendar quarter
Notes:
[1] Secondary standards
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

ATTAINMENT STATUS

The Clean Air Act requires states to prepare a State Implementation Plan (SIP) to ensure air quality meets the NAAQS. The California Air Resources Board (CARB) provides designations of attainment for air basins where AAQS are either met or exceeded. If the AAQS are met, the area is designated as being in "attainment", if the air pollutant concentrations exceed the AAQS, then the area is designated as being "nonattainment". If there is inadequate or inconclusive data to make a definitive attainment designation, the area is considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard. Table 4.3-2, *Antelope Valley Air Quality Management District Attainment Status*, lists the attainment status for criteria pollutants in the AVAQMD.

Table 4.3-2
Antelope Valley Air Quality Management District Attainment Status

Ambient Air Quality Standard	AVAQMD
One-hour Ozone (Federal) – standard has been revoked; this is historical information only	Proposed attainment in 2014; historical classification Severe-17
Eight-hour Ozone (Federal 84 ppb (1997))	Subpart 2 Nonattainment; classified Severe-15
Eight-hour Ozone (Federal 75 ppb (2008))	Nonattainment, classified Severe-15
Eight-hour Ozone (Federal 70 ppb (2015))	Expected nonattainment; classification to be determined
Ozone (State)	Nonattainment; classified Extreme
PM_{10} 24-hour (Federal)	Unclassifiable/attainment
$PM_{2.5}$ Annual (Federal)	Unclassified/attainment
$PM_{2.5}$ 24-hour (Federal)	Unclassified/attainment
$PM_{2.5}$ (State)	Unclassified
PM_{10} (State)	Nonattainment
Carbon Monoxide (State and Federal)	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/Unclassified
Sulfur Dioxide (State and Federal)	Attainment/Unclassified
Lead (State and Federal)	Attainment
Particulate Sulfate (State)	Unclassified
Hydrogen Sulfide (State)	Unclassified
Visibility Reducing Particles (State)	Unclassified
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.	

STATE REGULATION

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. The ARB also administers California Ambient Air Quality Standards (CAAQS), for the ten air pollutants designated in the California Clean Air Act (CCAA). The ten state air pollutants include the six national criteria pollutants and visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. The Air Basin has been designated by the CARB as a non-attainment area for ozone, PM_{10} and $PM_{2.5}$. Currently, the Air Basin is in attainment with the ambient air quality standards for CO, NO_2, SO_2, lead, and sulfates and is unclassified for visibility reducing particles and hydrogen sulfide.

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT (AVAQMD)

The project site is located within the Mojave Desert Air Basin (under the jurisdiction of the AVAQMD). The Mojave Desert Air Basin (MDAB), which includes the desert portions of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The AVAQMD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment."

The AVAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources within the Air Basin. The AVAQMD adopted the Ozone Attainment Plan in 2004 to develop the methods and reduction measures to ensure applicable ozone attainment goals and standards are met for the area. The attainment plan focuses on pollutants including NO_X and VOCs.

The AVAQMD has primary responsibility for regulating stationary sources of air pollution situated within its jurisdictional boundaries. To this end, the AVAQMD implements air quality programs required by state and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The District maintains a set of Rules and Regulations to improve air quality and maintain good air quality including the following rules:

- Rule 401, Visible Emissions. This rule specifies that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

  (A) As dark or darker in shade as that designated No. 1 on the Ringelman Chart, as published by the United States Bureau of Mines; or

  (B) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (b)(1)(A) of the rule.

- Rule 402 Nuisance. Rule 402 states that a person shall not discharge from any source whatsoever such quantities of contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or that

endanger the comfort, repose, health, or safety of such persons or the public or that cause or have a natural tendency to cause injury or damage to business or property.

- Rule 403 Fugitive Dust. The purpose of this rule is to reduce the amount of Particulate Matter entrained in the ambient air as a result of man-made Fugitive Dust sources by requiring actions to prevent, reduce or mitigate Fugitive Dust emissions. The rule specifies requirements for active operation of construction, excavation, extraction and other earth-moving activities, demolition, and bulk storage or materials.

Existing Setting

LOCAL AIR QUALITY

The CARB sets the California air quality standards and monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Ambient air pollutant concentrations in the Basin are measured at ten air quality-monitoring stations operated by the CARB and AVAQMD.

The nearest air monitoring station to the project site is the Division Street monitoring station, located at 43301 Division Street, in the City of Lancaster. Table 4.3-3, *Local Air Quality*, lists the published air quality monitoring data from 2019 through 2021, which is the most recent three-year period available. These pollutant levels were used to comprise a "background" for the project location and existing local air quality. Criteria pollutants such as carbon monoxide and sulfur dioxide have not been monitored at the Lancaster-43301 Division Street Station.

SIGNIFICANCE THRESHOLDS

The AVAQMD CEQA and Federal Conformity Guidelines, August 2016 (AVAQMD Guidelines) establishes air quality and greenhouse gas emissions thresholds for purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA.

According to the AVAQMD Guidelines, any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number one) is sufficient:

- Generates total emissions (direct and indirect) in excess of the thresholds given; refer to Table 4.3-5, *Annual Operational Air Quality Emissions*, under Impact "a" below.
- Generates a violation of any ambient air quality standard when added to the local background.[1]
- Does not conform with the applicable attainment or maintenance plan(s).

[1] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

- Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to one.

Table 4.3-3
Local Air Quality

Air Pollutant Location	Averaging Time	Item	2019	2020	2021
Carbon Monoxide -- Lancaster-43301 Division Street	1 Hour	Max 1-Hour (ppm)	--	--	--
		Exceeded State Standard (20 ppm)	--	--	--
		Exceeded National Standard (35 ppm)	--	--	--
	8 Hour	Max 8 Hour (ppm)	--	--	--
		Exceeded State Standard (9 ppm)	--	--	--
		Exceeded National Standard (9 ppm)	--	--	--
Ozone -- Lancaster-43301 Division Street	1 Hour	Max 1-Hour (ppm)	0.096	0.099	0.086
		Days > State Standard (0.10 ppm)	1	4	0
	8 Hour	Max 8 Hour (ppm)	0.082	0.084	0.080
		Days > State Standard (0.07 ppm)	14	8	4
		Days >National Standard (0.070 ppm)	13	8	3
Nitrogen Dioxide -- Lancaster-43301 Division Street	1 Hour	Max 1-Hour (ppm)	--	--	--
		Exceeded State Standard (0.05 ppm)	--	--	--
	Annual	Annual Average (ppm)	--	--	--
		Exceeded >State Standard (0.030 ppm)	--	--	--
		Exceeded >National Standard (0.053 ppm)	--	--	--
Sulfur Dioxide -- Lancaster-43301 Division Street	1 Hour	Max 1 Hour (ppm)	--	--	--
		Exceed State Standard (0.25 ppm)	--	--	--
		Exceed National Standard (0.075 ppm)	--	--	--
Coarse Particles (PM_{10}) -- Lancaster-43301 Division Street	24 Hour	Max 24-Hour (µg/m³)	165.1	192.3	411.2
		Days > State Standard (50 µg/m³)	--	--	--
		Days >National Standard (150 µg/m³)	2.1	1.1	1.0
	Annual	Annual Average (µg/m³)	22.5	30.6	29.6
		Exceeded State Standard (20 µg/m³)	Yes	Yes	Yes
Fine Particulates ($PM_{2.5}$) -- Lancaster-43301 Division Street	24 Hour	Max 24-Hour (µg/m³)	13.6	74.7	35.7
		Days >National Standard (35 µg/m³)	0.0	9.0	1.0
	Annual	Annual Average (µg/m³)	6.1	9.3	8.1
		Exceeded State Standard (12 µg/m³)	No	No	No
		Exceeded National Standard (15 µg/m³)	No	No	No

Abbreviations: µg/m³ = micrograms per cubic meter; ARB = California Air Resource Board; EPA= Environmental Protection Agency; ppm = part per million; (- -) = Data not provided
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

A significant project must incorporate mitigation to sufficiently reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Table 4.3-4, *AVAQMD Significant Emissions Threshold*, lists the significant emissions threshold for the AVAQMD.

Table 4.3-4
AVAQMD Significant Emissions Threshold

Pollutant	Annual Thresholds (tons/year)	Daily Thresholds (lbs/day)
Greenhouse Gases (CO_2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.		

PROJECT IMPACTS

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

Less Than Significant Impact: CEQA requires a discussion of any inconsistencies between a proposed project and applicable general plans and regional plans. The regional plan that applies to the proposed project would be the AVAQMD adopted Ozone Attainment Plan in 2004. The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the Ozone Attainment Plan and discuss whether the proposed project would interfere with the region's ability to comply with federal and state air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

OPERATIONAL EMISSIONS

As shown in Table 4.3-5, *Annual Operational Air Quality Emissions*, and Table 4.3-6, *Daily Operational Air Quality Emissions*, short-term regional construction air emissions generated by the project would not result in significant impacts based on AVAQMD regional thresholds of significance or local thresholds of significance. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not be projected to exceed the air quality standards. Therefore, a less than significant long-term impact would occur, and no mitigation would be required.

Table 4.3-5
Annual Operational Air Quality Emissions (tons/year)

Activity	Pollutant Emissions (tons/year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	1.11	1.32	7.21	0.02	0.51	0.11
Area Sources	1.46	0.01	1.17	0.01	0.01	0.01
Energy Usage	0.03	0.54	0.46	0.01	0.04	0.04
Off-Road	-	2.75	27.50	-	-	-
Total Emissions	**2.60**	**4.62**	**36.34**	**0.03**	**0.56**	**0.16**
AVAQMD Operational Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Note: Total annual emissions include both onsite and offsite sources.
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Table 4.3-6
Daily Operational Air Quality Emissions (lbs/year)

Activity	Pollutant Emissions (lbs/year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	9.55	9.98	62.80	0.12	3.94	0.81
Area Sources	9.11	0.1	13.00	0.01	0.02	0.02
Energy Usage	0.16	2.98	2.50	0.02	0.23	0.23
Off-Road	-	21.20	211.00	-	-	-
Total Emissions	**18.82**	**34.26**	**289.30**	**0.15**	**4.19**	**1.06**
AVAQMD Operational Thresholds	**137**	**137**	**548**	**137**	**82**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Note: Total annual emissions include both onsite and offsite sources.
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

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

Less Than Significant Impact With Mitigation Incorporated: The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the AVAQMD standards.

CONSTRUCTION OPERATIONS

To evaluate worst case scenario, the air quality analysis evaluates a construction condition where phase one and phase two of the proposed project would be developed concurrently with development occurring on Lot 12, 16, and 20.

Construction-Related Annual Air Quality Impacts

The construction emissions have been analyzed for regional impacts. Table 4.3-7, *Annual Construction Air Quality Emissions*, shows the annual tons per year of construction emissions compared to the AVAQMD annual thresholds of significance. The data provided in Table 4.3-7 shows that none of the analyzed criteria pollutants would exceed the regional AVAQMD thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Table 4.3-7
Annual Construction Air Quality Emissions (tons/year)

Year	Pollutant Emissions (tons/year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2023	0.13	1.53	1.34	0.01	0.28	0.11
2024	1.18	1.65	2.78	0.01	0.29	0.11
Maximum[1]	**1.18**	**1.65**	**2.78**	**0.01**	**0.29**	**0.11**
AVAQMD Operational Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
[1] Maximum annual emissions include both onsite and offsite sources.
Source: Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Construction-Related Daily Air Quality Impacts

The construction emissions have been analyzed for local air quality impacts. The CalEEMod model has been utilized to calculate the construction-related local air quality emissions from the proposed project. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table 4.3-8, *Daily Construction Air Quality Emissions*, shows the combined daily criteria pollutant emissions from building construction, paving and architectural coating phases of construction. Table 4.3-8 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either site preparation, grading, or the combined building construction, paving and architectural coatings phases. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

FUGITIVE DUST CONTROL

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut and fill grading operations, and exposure of soils to the air and wind. AVAQMD Rule 403 requires that fugitive dust be controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, AVAQMD Rules 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite. To ensure compliance with the fugitive dust control measures and to reduce potential exposure of sensitive receptors to substantial pollution concentrations, Mitigation Measure AQ-1 is recommended which requires a Dust Control Plan to be submitted prior to the start of any construction

activity. With implementation of Mitigation Measure AQ-1, potential impacts would be less than significant.

Table 4.3-8
Daily Construction Air Quality Emissions (pounds/day)

Activity	Pollutant Emissions (lbs/year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Site Preparation	4.07	39.82	37.48	0.05	2.04	1.71
Grading	4.42	71.65	40.89	0.28	14.43	5.75
Building Construction	1.96	14.40	26.01	0.03	2.51	1.01
Paving	2.99	7.91	11.08	0.01	0.59	0.41
Architectural Coating	134.27	1.06	2.82	0.01	0.33	0.10
Maximum[1]	**134.27**	**71.65**	**40.89**	**0.28**	**14.43**	**5.75**
AVAQMD Operational Thresholds	**137**	**137**	**548**	**137**	**82**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
[1] Maximum daily emission during summer and winter; includes both onsite and offsite sources.
Source: Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact With Mitigation Incorporated: The proposed project consists of the construction and operation of two industrial buildings totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The project's southernmost boundary is located approximately 990 feet from the nearest residential sensitive receptors. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from toxic air contaminant emissions.

CONSTRUCTION-RELATED SENSITIVE RECEPTOR IMPACTS

The construction activities for the proposed project are anticipated to include grading, building construction, paving, parking lots, and application of architectural coatings. Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Criteria Pollutant Impacts from Construction

The air quality analysis has assumed a vehicle mix of 78.6 percent passenger cars, 8.0 percent two-axle trucks, 3.9 percent three-axle trucks, and 9.5 percent four-axle trucks for the industrial land uses on the project site. General Office land uses have been modeled using CalEEMod's default vehicle mix. Air quality impacts from construction of the proposed project have been analyzed and found that the

construction of the proposed project would not exceed the local NO_X, CO, PM_{10}, and $PM_{2.5}$ thresholds of significance. Therefore, construction of the proposed project would create a less than significant construction-related impact to local air quality. No mitigation would be required.

CONSTRUCTION-RELATED TOXIC AIR CONTAMINANT IMPACTS

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. During construction, the project would have the potential to generate DPM from off-road diesel equipment and trucks. Mitigation Measures AQ-2 through AQ-6 are recommended to help ensure that the potential health risk impacts associated with DPM during construction is reduced to the maximum extent. With implementation of Mitigation Measures AQ-2 through AQ-6, construction related of toxic air contaminants (TAC) impacts would be less than significant.

Criteria Pollutant Impacts from Onsite Operations

Air quality impacts from the operation of the proposed project would occur from onsite sources such as architectural coatings, landscaping equipment, delivery trucks, and onsite usage of natural gas appliances. The analysis found that the operation of the proposed project would not exceed the local NO_X, CO, PM_{10} and $PM_{2.5}$ thresholds of significance. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to air quality due to onsite emissions. No mitigation would be required.

OPERATIONAL-RELATED TOXIC AIR CONTAMINANT IMPACTS

The primary source of TACs associated with the project would include DPM emitted from the use of diesel-powered construction equipment and on-road vehicles powered by diesel engines.

AVAQMD Guidelines indicate that a project may result in a significant impact if it exposes sensitive receptors to substantial pollutant concentrations. In accordance with AVAQMD Guidelines, the following project types within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated for potential exposure of substantial pollution concentrations:

- Any industrial project within 1,000 feet of a sensitive receptor.
- A distribution center (40 or more trucks per day) within 1,000 feet of a sensitive receptor.
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet of a sensitive receptor.
- A dry cleaner utilizing perchloroethylene within 500 feet of a sensitive receptor.
- A gasoline dispensing facility within 300 feet of a sensitive receptor.

The proposed project would include industrial activities which have been identified by the AVAQMD as potentially significant generators of TACs that could cause the exposure of sensitive receptors to substantial pollutant concentrations. Although the project's southernmost boundary is located approximately 990 feet from the nearest residential sensitive receptors, the closest onsite industrial activity will occur at approximately 1,200 feet away. As the project's industrial activity is not located within 1,000 feet of the nearest sensitive receptors, the project's operational impact would be less than significant.

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

Less Than Significant Impact: Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor. Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

CONSTRUCTION-RELATED ODOR IMPACTS

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints, and solvents and from emissions from diesel equipment. Odors are typically categorized as a nuisance and are regulated under AVAQMD Rule 402. Rule 402 requires that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur. No mitigation would be required.

OPERATIONS-RELATED ODOR IMPACTS

The proposed project consists of the construction and operation of two industrial buildings totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. Land uses that commonly receive odor complaints include agricultural uses (farming and livestock), chemical plants, painting/coating operations, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The proposed project does not contain land

uses that would typically be associated with significant odor emissions. Therefore, a less than significant odor impact would occur. No mitigation would be required.

MITIGATION MEASURES

AQ-1: Per the requirements of AVAQMD Rule 403, the applicant shall submit a Dust Control Plan (DCP) to the Antelope Valley Air Quality Management District for review, and obtain approval, prior to initiating any grading or grubbing construction activity.

AQ-2: All construction equipment shall be maintained in proper tune.

AQ-3: All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five minutes or longer.

AQ-4: Minimize the simultaneous operation of multiple construction equipment units.

AQ-5: All haul trucks shall be registered on-road vehicles that meet the latest emissions standards for operating in California.

AQ-6: Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

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4.4 Biological Resources

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on a *Biological Technical Report* prepared by VCS Environmental in August 2023. The report is presented in its entirety in Appendix B.

Existing Setting

The six-acre project site is currently vacant and undeveloped. The proposed project is located within an urbanized environment and is located on the United States Geological Survey (USGS), Palmdale California, 7.5 Minute Quadrangle Map (USGS, 2015).

The project site supports a mixed shrub community typical of the general area; refer to Figure 4.4-1, *Vegetation/Land Cover*.

The site is comprised of predominantly native vegetation and shows signs of historical disturbance from grading of dirt roads and off-highway vehicles.

VEGETATION COMMUNITIES

Overall, the project site supports three vegetation/land cover types; refer Table 4.4-1, *Vegetation Communities*.

Table 4.4-1
Vegetation Communities

Vegetation Community/Land Cover Type	Project Site Lot 3 Only (Acres)
Disturbed/Developed	0.9
Western Joshua Tree Woodland	4.55
Rabbitbrush Scrub	1.66
Total	**7.1**
Source: VCS Environmental, *Biological Technical Report*; August 2023.	

SENSITIVE PLANT AND WILDLIFE SPECIES

A database search of special status plant species and wildlife species listed in the California Native Plant Society (CNPS) Online Survey of rare Plants and the CNDDB was conducted to determine the potential for special status plant and wildlife species to be present on the project site. A listing of special status plant and wildlife species that have potential to occur on the project site is shown in Table 4.4-2, *Special Status Species*. A complete listing of all special status species that have some potential to occur on the project site is presented in Appendix B, *Biological Technical Report*, and graphically shown in Figure 4.4-2, *California Natural Diversity Database (CNDDB) Occurrences*.

Table 4.4-2
Special Status Species

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Project Site
Plants				
Yucca brevifolia	Western Joshua Tree	CRPR: CBR, GNR, SNR	A tree found in California and elsewhere within western Joshua tree woodlands of both desert flats and slopes. Prefers coarse, dry, and well-drained soils. Elevation: 400 – 2300 m Blooming period: March – May	Present – Take authority from the California Department of Fish and Wildlife prior to any impacts to western Joshua trees is required pursuant to the Western Joshua Tree Conservation Act.

Table 4.4-2
Special Status Species

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Project Site
Birds				
Toxostoma bendirei	Bendire's thrasher	SSC, BLMS, IUCN VU, NABRCI: RWL, USFWS BCC Rank: G4S3	Breeds in thorny shrubs and cactus in western Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. Also occur in the eastern Mojave in areas with high numbers of *Opuntia*, or cholla, cactus. Common summer resident in Joshua Tree National Monument. They are a resident from February – August.	Moderate – Suitable breeding and foraging habitat exists on site; however, the species was not observed during the surveys.
Toxostoma lecontei	LeConte's thrasher	SSC, BLMS, IUCN LC, USFWS BCC, NABRCI: RWL Rank: G4SW	The LeConte's Thrasher inhabits some of the hottest and driest habitats in the southwestern United States and northwestern Mexico. Distribution – An uncommon to rare local resident in southern California deserts from southern Mono County south to the Mexican border, and in western and southern San Joaquin Valley. Habitat – Open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs.	Moderate – This species may nest and forage onsite; however, was not observed during field surveys.
Mammals				
Lepus californicus bennettii	San Diego black-tailed jackrabbit	SSC MSHCP: Group 1	This species is found in a variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral, and in western Riverside County in suitable grassland, sage scrub and chaparral (openings) habitat. It is also found in substantial numbers in agricultural and rural residential settings. It is restricted to the cismontane areas of southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa Mountain ranges.	Present – The geographic location of the site indicates that the individuals observed belonged to the desert race, and not the coastal race.

Table 4.4-2
Special Status Species

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Project Site
Onychomys torridus ramona	southern grasshopper mouse	SSC	The species occurs in desert areas, especially in scrub habitats with friable soils for digging burrows. It is also known from coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Historically occurred along the coast of southern California from Los Angeles County south through San Diego County into northwestern Baja California. There are few recent records from the Los Angeles Basin, Riverside and San Bernardino, most of Orange County, or western San Diego County.	Moderate – Suitable habitat present onsite; however, not observed during field surveys.

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).

FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.
FCE = federal candidate endangered.
FD = federally delisted species.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.

SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.
ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.
SCE = state listed as candidate endangered.
SD = state delisted species.

California Department of Fish and Wildlife (CDFW):

SSC = species of special concern
FP = Fully protected
WL = watch list

United States Fish and Wildlife Service (USFWS):

BCC = USFWS bird of conservation concern

United States Forest Service (USFS):

FSS = Forest Service sensitive

United States Bureau of Land Management (BLM):

BLMS = BLM sensitive

California Rare Plant Ranks (Formerly known as CNPS Lists): The CNPS is a statewide, non-profit organization that maintains, with CDFG, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFG officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and CDFG jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

CRPR: 1A – California Rare Plant Rank of 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.
CRPR: 1B – California Rare Plant Rank 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere.
CRPR: 2A – California Rare Plant Rank 2A: Plants presumed extirpated in California but common elsewhere.
CRPR: 2B – California Rare Plant Rank 2B: Plants rare, threatened, or endangered in California but more common elsewhere.

Table 4.4-2
Special Status Species

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Project Site

CRPR: 3 – California Rare Plant Rank 3: Review List: Plants about which more information is needed. Plants with a California Rare Plant Rank of 3 are united by one common theme – there is a lack of necessary information to assign them to one of the other ranks or to reject them.

CRPR: 4 - California Rare Plant Rank 4: Plants of Limited Distribution - A Watch List.

California Native Plant Society (CNPS) Threat Ranks: The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
0.2 = fairly endangered in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)
0.3 = not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Western Riverside Multiple Species Habitat Conservation Plan (MSHCP): Planning species covered by the MSHCP. Additional surveys for Narrow Endemic Plant Species and Criteria Area Species to determine presence/absence may be required.

PS = planning species
NEPSSA # = Narrow Endemic Plant Species Survey Area (with survey area number noted).
CASSA # = Criteria Area Species Survey Area (with survey area number noted).
Group 1 = Species that have wide distribution throughout the Plan Area within suitable habitat.
Group 2 = Species that are relatively well-distributed throughout the MSHCP Plan Area.
Group 3 = Species that have narrow habitat requirements and limited distribution within the Plan Area.

Western Bat Working Group (WBWG): The WBWG is composed of agencies, organizations, and individuals interested in bat research, management, and conservation from the 13 western states and provinces.

WBWG-H = Hight Priority
WBWG-M = Medium Priority
WBWG-L = Low Priority

American Fisheries Society: Listing of imperiled freshwater and diadromous fishes of North America prepared by the American Fisheries Society's Endangered Species Committee.

AFS-E = Endangered
AFS-TH = Threatened
AFS-V = Vulnerable

The International Union for Conservation of Nature (IUCN): The IUCN assesses, on a global scale, the conservation status of species, subspecies, varieties and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation. Detailed information on the IUCN and the Red List is available at: http://www.iucnredlist.org

IUCN-CR = Critically endangered
IUCN-EN = Endangered
IUCN-NT = Near threatened
IUCN-VU = Vulnerable
IUCN-LC = Least concern
IUCN-DD = Data deficient
IUCN-CD = Conservation dependent

Table 4.4-2
Special Status Species

NatureServe Element Ranking: This ranking system's units of conservation may include non-taxonomic biological entities such as populations or ecological communities, thus, NatureServe refers to the targets of biological conservation as "elements" rather than taxa. The three main categories that are taken into consideration when assigning an element rank are rarity, threats, and trends.

The global rank (G-rank) is a reflection of the overall status of an element throughout its global range:

- GX: Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.
- GH: Possibly Extinct – Known from only historical occurrences but still some hope of rediscovery. Examples of evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct throughout its range.
- G1: Critically Imperiled – At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- G2: Imperiled – At high risk of extinction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- G3: Vulnerable – At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- G4: Apparently Secure – At fairly low risk of extinction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- G5: Secure – At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
- GNR: Unranked – Global rank not yet assessed.

The state rank (S-rank) refers to the imperilment status only within California's state boundaries:

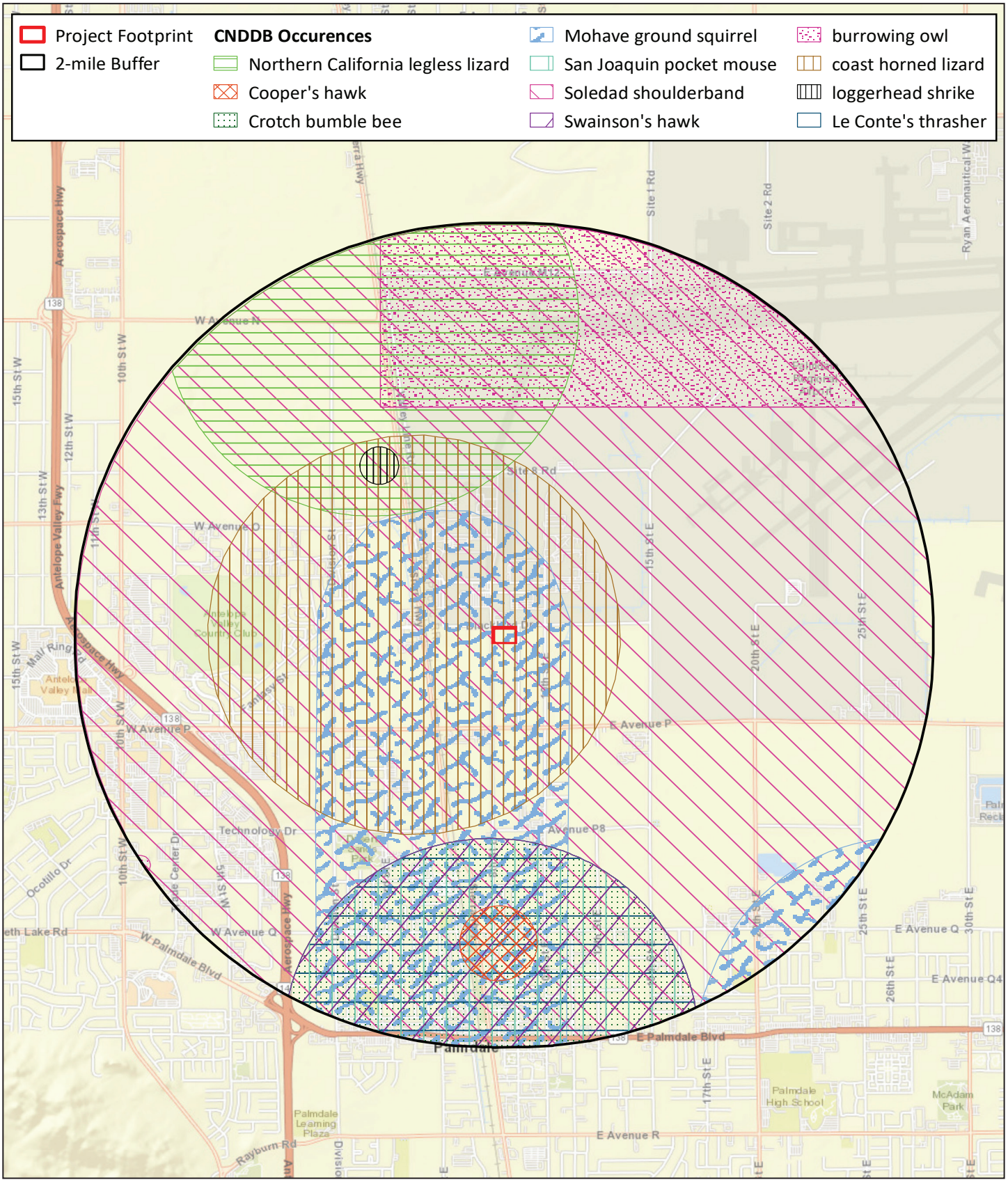
- SX: Presumed Extirpated – Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
- SH: Possibly Extirpated – Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.
- S1: Critically Imperiled – At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2: Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4: Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

Source: VCS Environmental, *Biological Technical Report*; August 2023.

Source: ESRI; August 2023.

Vegetation/Land Cover

Figure 4.4-1



Source: ESRI, County of Los Angeles, CDFW, USFWS; August 2023.

California Natural Diversity Database (CNDDB) Occurrences

Figure 4.4-2

SENSITIVE WILDLIFE SPECIES

Sensitive wildlife species include the following classifications: federally or state listed threatened or endangered species, California species of special concern, and fully protected and protected species (as designated by CDFW). Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions.

No special status animal species were observed within the project site during the 2021 and 2022 surveys. However, during the January 2023 survey, the San Diego black-tailed jackrabbit was observed. Three special status species were considered to have at least a moderate potential to occur within the project site including Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and Southern grasshopper mouse (*Onychomys torridus ramona*) but were not observed onsite.

Southern Grasshopper Mouse

The Southern grasshopper mouse is a CDFW Species of Special Concern. This species occurs in desert areas, especially in scrub habitats with friable soils for digging burrows. It is also known to occur in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Historically, the species occurs along the coast of southern California from south Los Angeles County through San Diego County into northwestern Baja California. This species was not observed during the field surveys; however, there is a moderate potential for the species to occur due to the suitable habitat present onsite.

Bendire's Thrasher

Bendire's thrasher is a CDFW Species of Special Concern, BLM Sensitive, USFWS Bird of Conservation Concern, and is on the Red Watch List (RWL) of the North American Bird Conservation Initiative (NABCI). The species occurs in the eastern Mojave areas with high numbers of *Opuntia*, cholla, or cactus. They are a summer resident in western Joshua Tree National Monuments and breed in thorny shrubs and cactus in western Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. The species was not observed during the field surveys; however, there is a moderate potential for the species to occur due to the suitable nesting and foraging habitat observed onsite.

LeConte's Thrasher

LeConte's thrasher is a USFWS Bird of Conservation Concern, a CDFW designated Species of Special Concern and is considered BLM Sensitive. LeConte's thrasher is uncommon to rare, but inhabit open desert wash, desert scrub, alkali desert scrub, desert succulent shrub and western Joshua tree habitat with scattered shrubs. According to the field surveys conducted in 2022 and 2023, no LeConte's thrasher or active/potentially active nests were observed in native plants on the project footprint during the field survey. The potential for foraging and nesting activity is moderate.

VEGETATION COMMUNITIES

Disturbed/Developed

The project site consists of Disturbed/Developed habitat. This area includes dirt roads and shoulder/right-of-way areas mostly devoid of vegetation.

Rabbitbrush Scrub

Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance) occurs within the project site. The vegetation is dominated by rubber rabbitbrush, while lotebush (*Ziziphus obtusifolia*), Mormon tea, and shortpod mustard occur at lower cover.

Joshua Tree Woodland

Western Joshua Tree Woodland (*Yucca brevifolia* Woodland Alliance), which includes nine western Joshua trees, one which is dead, and a total of approximately 27 live trunks of varying sizes, occurs within the Project Site where impacts are proposed. There are no western Joshua trees within the right-of-way improvements within the Project Footprint. Western Joshua Tree Woodland is considered a sensitive vegetation community by CDFW and has a Global Rank 4 and a State Rank of 3.2 indicating that the community is apparently secure globally but is vulnerable statewide in California. This community is found in the southern majority of the project site.

Table 4.4-3, *Joshua Tree Census within the Project Site*, includes the western Joshua tree census from the western Joshua tree survey conducted in January 2023 by Envira.

Table 4.4-3
Joshua Tree Census within the Project Site

Area	Map Reference	Height (meters)	# of Trunks	Health	Size Class
Project Site	32	0.91-1.22	3	H	Less than one meter in height and one meter or greater but less than five meters in height.
	35	0.91-1.83	6	D	Less than one meter in height and one meter or greater but less than five meters in height.
	37	-	-	Dead	N/A
	39	0.91-3.048	8	D	Less than one meter in height and one meter or greater but less than five meters in height.
	41	0.91	4	D	Less than one meter in height.
	42	2.44	2	H	One meter or greater but less than five meters in height.
	46	4.88	1	D	One meter or greater but less than five meters in height.
	47	3.048	2	D	One meter or greater but less than five meters in height.
	49	2.44	1	H	One meter or greater but less than five meters in height.

Source: VCS Environmental, *Biological Technical Report*; March 2023.

In June 2023, the State passed the Western Joshua Tree Conservation Act (WJTCA), which allows any take authorization by meeting the conditions listed in Section 1927.3 (a)(1-4) of the WJTCA, which allows authorization through payment of an in-lieu fee program set forth in Section 1927.3 (a)(3) of the WJTCA. Fees are based on the location of the project and the number of impacted live western Joshua tree stem or trunks arising from the ground. Additionally, any person or public agency may obtain authorization for either the removal or trimming of dead western Joshua trees without payment of fees or other mitigation, provided that the dead western Joshua trees or any limbs to be removed

meet one of the criteria set forth in Section 1927.4 (a)(2)(A-C) and the property owner submits a permit request with the required information set forth in Section 1927.4 (a)(3)(A-D).

Under the current regulatory requirements of CDFW, permits/take authority would need to be obtained prior to development of the project site.

The proposed project would impact 58 living trunks. To satisfy the census requirements, Mitigation Measure BIO-1a would be implemented. If any additional limbs or pups are identified following the implementation of Mitigation Measure BIO-1a, the updated total of western Joshua trees arising from the ground that are proposed for impacts would be authorized through meeting the conditions listed in Section 1927.3 (a)(1-4) which includes payment into the in-lieu fee program set forth in Section 1927.3 (a)(3) of the WJTCA. Additionally, the one dead trunk would be authorized through the permit request set forth in Section 1927.4 (a)(3)(A-D) of the WJTCA as stated in Mitigation Measure BIO-2.

In summary, there are eight western Joshua trees and one dead western Joshua tree. In total, there are eight live trees that contain 58 live trunks with a height range between 0.91-4.88 meters/3-16 feet.

CRITICAL HABITAT

The project site is not located within designated federal critical habitat. The nearest critical habitat is Arroyo toad (*Anaxyrus californicus*) located approximately 11.3 miles southeast of the project area. There will be no impacts to any USFWS designated Critical Habitat for wildlife species.

JURISDICTIONAL WATERS

The project site is within the Antelope Valley watershed and contributes to Rosamond Lake, a dry lake that is not considered a Traditionally Navigable Water. The project has no connection to Traditionally Navigable Water and there are no features within the project site that would be classified as Waters of the U.S. or State.

WILDLIFE MOVEMENT

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. Corridors effectively act as links between different populations of a species. An increase in a population’s genetic variability is generally associated with an increase in a population’s health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing wildlife to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and
- Serving as travel routes for individual wildlife species as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions);
- Seasonal migration; and
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

The project site could serve a minor function in local wildlife dispersal and foraging due to the mixed shrub community typical of the area with predominantly native vegetation. However, the site shows signs of historical disturbance from grading of dirt roads, off-highway vehicles, dumping/debris, and non-native vegetation. With industrial/commercial developments and roadways bordering the project area, the site is comprised of fragmented and disturbed habitat offering little cover and suitable habitat for dispersing wildlife species. The site is not within a significant regional wildlife movement corridor and is not considered to play a role in regional wildlife movement.

PROJECT IMPACTS

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

Less Than Significant Impact With Mitigation Incorporated: The following evaluates potential impacts to special status plants, wildlife, and critical habitat areas.

SPECIAL STATUS PLANT SPECIES

Sensitive plant species include federally or state listed as threatened or endangered species and those species listed on CNPS's rare and endangered plant inventory. Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions. The majority of the sensitive plant species have a low potential to occur onsite, with the exception of western Joshua tree.

Western Joshua Tree

The proposed project would impact 58 living trunks. To satisfy the WJTA census requirements, Mitigation Measure BIO-1a will be implemented. If any additional trees are identified following the implementation of Mitigation Measure BIO-1a, the updated total of western Joshua trees arising from the ground that are proposed for impacts would be authorized through meeting the conditions listed in Section 1927.3 (a)(1-4) which includes submittal of a WJT census and payment into the in-lieu fee program set forth in Section 1927.3 (a)(3) of the WJTCA. Removal of one dead trunk would be authorized through the authority set forth in Section 1927.4 (a)(3)(A-D) of the WJTCA.

Due to the location of the western Joshua trees in the project site being relatively spread-out and unavoidable, direct impacts are expected to occur as a result of project implementation and mitigation measures are recommended. The vast majority of western Joshua trees are not good candidates for relocation purposes; therefore, compensatory mitigation through payment pursuant to the WJTA would be required. With the implementation of Mitigation Measure BIO-1, impacts to the western

Joshua tree are not expected to jeopardize the continued existence of western Joshua tree and would be considered less than significant.

SPECIAL STATUS WILDLIFE

No special status wildlife species were observed within the project site during the 2021 and 2022 surveys. However, during the January 2023 survey, the San Diego black-tailed jackrabbit was observed. Three special status species were considered to have at least a moderate potential to occur within the project site including Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and Southern grasshopper mouse (*Onychomys torridus ramona*).

All other special status wildlife species analyzed exhibit a low potential to occur within the project site, and therefore potential impacts were identified to be less than significant. To avoid impact Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and southern grasshopper mouse (*Onychomys torridus ramona*). Mitigation Measures BIO-2 and BIO-3 are recommended which require any vegetation removal activities to occur outside of nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) and a preconstruction survey for sensitive species to be conducted by a qualified biologist within 30 days prior to any construction activities and passive or active relocation to sensitive species are present. With implementation of Mitigation Measures BIO-2 and BIO-3, impacts to sensitive plant and wildlife species would be less than significant.

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

Less Than Significant Impact: The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. As previously shown in Table 4.4-1, *Vegetation Communities*, the land cover on the project site consists of disturbed/developed area, rabbitbrush scrub, and western Joshua trees. Additionally, the project site does not contain riparian habitats identified or otherwise regulated under any local or regional plans, policies, regulations, or by the CDFW or USFWS. Therefore, impacts would be less than significant.

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?

No Impact: The proposed project consists of the construction and operation of two industrial buildings totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. No jurisdictional waters or wetlands regulated under the Clean Water Act occur on the project site; therefore, no impacts would occur.

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

Less Than Significant Impact With Mitigation Incorporated: The project would not 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.

The project site may serve a minor function in local wildlife dispersal and foraging due to the mixed shrub community typical of the area with predominantly native vegetation. However, the project site shows signs of historical disturbance from agricultural uses, grading of dirt roads, off-highway vehicles, dumping/debris, and non-native vegetation. With roadways bordering the project, the site is comprised of fragmented and disturbed habitat offering little cover and suitable habitat for dispersing wildlife species. No long-term or significant effects to wildlife movement are anticipated due to project implementation. Because the project site does not lie within a designated wildlife corridor, the proposed project is not anticipated to have significant impacts related to habitat fragmentation and regional wildlife movement. As such, impacts would be less than significant, and no mitigation measures would be required.

NESTING BIRDS

Due to the potential for onsite bird nesting, project construction could result in impacts to nesting birds that would be in violation of the Federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. Therefore, recommended avoidance measures, including a pre-construction nesting bird survey to avoid impacts prior to the start of work, would be implemented. With implementation of Mitigation Measure BIO-2, potential impacts to migratory birds would be less than significant.

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

No Impact: The project site does not support biological resources protected under any local policies or ordinances.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact: The project 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. There is no applicable Habitat Conservation Plan, Natural Community Conservation Plan or other local, regional, or state habitat conservation plan for the proposed project.

MITIGATION MEASURES

BIO-1: Prior to project grading, the applicant shall confirm the western Joshua tree census. A survey from a qualified biologist shall be conducted pursuant to Section 1927.3 (a) (1-4) of the WJTCA and submitted to CDFW with the appropriate fee to obtain an Incidental Take Permit. If any additional trees are identified as part of this survey, additional fees will be paid subject to 1927.3 (d)(2) (A-B) of the WJTCA.

BIO-2: Nesting Bird Surveys. Vegetation removal activities shall be conducted outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. Any construction activities that occur during the season (February 15 to August 31) will require that all suitable habitats be thoroughly surveyed for the presence of nesting birds by a Qualified Biologist within three days before commencement of vegetation clearing/ground disturbance activities depending on which season work falls within. If any active nests are detected, a buffer of 500 feet of an active threatened or endangered species or raptor nest, 300 feet of other sensitive species (non-listed), and 100 feet of most common species will be delineated, flagged, and avoided until the nesting cycle is complete. The buffers may be modified and/or other recommendations proposed as determined appropriate by the Biological Monitor to minimize impacts.

BIO-3: Sensitive Species Surveys. A pre-construction presence/absence survey for sensitive species, including burrowing owl, Mohave ground squirrel, desert tortoise, southern grasshopper mouse, shall be conducted by a Qualified Biologist in compliance with CDFW standards within 30 days prior to any on-site ground disturbing activity. In the event these species are not identified within the Project Footprint, no further mitigation is required. If the Project Footprint is left undisturbed for more than 30 days, another pre-construction survey will be necessary to ensure sensitive species have not colonized the site since it was last disturbed.

If during the pre-construction survey, sensitive species are found to occupy the site, the City may require the Project Applicant to take the following actions to avoid/minimize impacts prior to ground disturbance:

- Active nests, roosts, burrows for sensitive species within the areas scheduled for disturbance or degradation shall be avoided with a minimum 250-foot buffer until the area is determined inactive by the Biological Monitor, subject to modification by the Biological Monitor and approved by the City.
- Passive or active relocation of sensitive species may occur with approval of the City. A Qualified Biologist to prepare a plan for relocating the species to a suitable site. The relocation plan shall include the following:
  - The location of the species proposed for relocation;
  - The location of the proposed relocation site;
  - The number of species involved and the time of year when the relocation is proposed to take place;
  - The name and credentials of the biologist who will be retained to supervise the relocation;
  - The proposed method of capture and transport for the species to the new site;
  - A description of site preparation at the relocation site; and
  - A description of efforts and funding support proposed to monitor the relocation.

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4.5 Cultural Resources

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on a *Cultural Resources Study* prepared by Tierra Environmental Services on September 5, 2022. The report is presented in its entirety in Appendix C.

Regulatory Setting

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CEQA requires a lead agency to determine whether a project would have a significant impact on one or more historical resources. According to Section 15064.5(a) of the State CEQA Guidelines, a "historical resource" is defined as a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (PRC §21084.1); a resource included in a local register of historical resources (14 CCR §15064.5[a][2]); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR §15064.5[a][3]).

Section 5024.1 of the PRC, Section 15064.5 of the State CEQA Guidelines (14 CCR), and Sections 21083.2 and 21084.1 of the CEQA Statutes were used as the basic guidelines for the cultural resources study. PRC 5024.1 requires evaluation of historical resources to determine their eligibility for listing in the CRHR. The purposes of the CRHR are to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR, which were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP) (per the criteria listed at 36 CFR §60.4), are stated below (PRC §5024.1).

> Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource . . . Generally, a resource shall be considered by a lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources including the following:

(a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or

(b) Is associated with the lives of persons important in our past; or

(c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(d) Has yielded, or may be likely to yield, information important in prehistory or history.

Impacts that would materially impair the significance of a resource listed in or eligible for listing in the CRHR are considered to have a significant effect on the environment. Impacts to historical resources from the proposed project are considered significant if the project (A) demolishes or materially impairs in an adverse manner those physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register; (B) demolishes or materially impairs in an adverse manner those physical characteristics that account for its inclusion in a local register; or (C) demolishes or materially impairs in an adverse manner those physical characteristics that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency (§15064.5[b][2]).

HUMAN REMAINS

Section 7050.5 of the *California Health and Safety Code* provides for the disposition of accidentally discovered human remains. Section 7050.5 states that, if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. Section 5097.98 of the PRC states that, if remains are determined by the Coroner to be of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours which, in turn, must identify the person or persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Existing Setting

CULTURAL PRE-HISTORY

The prehistory of southern California can be divided into four broad periods: the PaleoIndian Period, and the Early, Middle and Late Periods. The PaleoIndian Period occurred approximately 12,000-7,000 years ago (Moratto 1984). Little is known of this Period, but reports from Mojave Desert sites like Calico Hills (Simpson 1980), China Lake (Davis 1982), and Manix Lake (Simpson 1958, 1960, 1964) have made claims in excess of 10,000 years. The evidence for these claims has often been rooted in the similarity of the crude "tools" from Paleolithic sites in the Old World, relative patination and/or embeddedness of the artifacts. In contrast, more is known of the following Early Period, spanning 7,000-3,000 B.P. This Period is represented by dozens of sites throughout southern California and reflects technological adaptations focused on handstones, millingstones and large scrapers. The Middle Period (3,000-900 years B. P.) features a greater frequency of bifaces and projectile points, the

appearance of mortar and pestle technology, and a greater variety of ornament and bead types than earlier Periods. Late Period material culture, as described by King (1981) includes small projectile points, steatite bowls, bone tools, and diverse shell bead types that may have been used as currency (King 1981).

CULTURAL RESOURCES RECORDS SEARCH

Tierra Environmental Services conducted an archaeological inventory of the project area and a one-mile radius around it. The archaeological inventory included archival and other background studies. The archival research consisted of literature and records searches at local archaeological repositories, in addition to an examination of historic maps, aerial photographs, and historic-era site inventories. This information was used to identify previously recorded resources and to determine the types of resources that might occur in the survey area. The records and literature search for the project was procured from the South-Central Coastal Information Center (SCCIC) at California State University at Fullerton. The records search includes a one-mile radius of the project area in order to provide background on the types of sites that would be expected in the region.

Historic research included an examination of a variety of resources. The current listings of the National Register of Historic Places (National Register) were checked through the National Register website. The California Inventory of Historic Resources (OHP 1976) and the California Historical Landmarks (OHP 1992) were also checked for historic-era resources in the vicinity. A series of topographic maps (Valyermo USGS 7.5') are available for review ranging in dates from 1930 to 2018. Several of these maps were consulted in addition to aerial imagery. There are several aerial images available for review which range in date from 1948 to 2016 (historicearіels.com). The records search from the SCCIC included the 1958 Lancaster 15’ series map for review.

The records search provided by the SCCIC revealed that 36 investigations have been previously conducted within a one-mile radius of the project area. Two of the previous studies (LA-12095 and LA-12877) involve the APE. LA-12095 (Los Angeles County Waterworks District No. 40 Regional Recycled Water Project Phase 2) was conducted in 2012 and horizontally crosses the northernmost portion of Lot 3 and crosses the easternmost portion of Lots 12 and 16. LA-12877 (Historical Resources Evaluation Report for the High Desert Corridor, Los Angeles and San Bernardino Counties, California) covers the entirety of the project area and was conducted in 2014.

The records search indicated that 31 cultural resources or historic properties have been previously identified within a one-mile radius of the project area, none of which are located within the project area. A total of 30 of the previously recorded resources are historic in age. These primarily consist of single-family homes or trash deposits. Only one of the 31 previously recorded resources is prehistoric in age and is an isolated projectile point. Table 4.5-1, *Recorded Cultural Resources within One Mile of the Project Site*, provides a summary of each of the previously recorded resources.

Table 4.5-1
Recorded Cultural Resources within One Mile of the Project Site

Resource	Period	Description	Recorder	Recording Year
001623	Historic	Trash scatter	Norwood	19899/2016
002912	Historic	Water Conveyance System	Sriro	2001/2014
002913	Historic	Foundation, Wall	Sriro	2001/2009
003185	Historic	Trash scatter	Everson	2004/2014
003258	Historic	Trash scatter	Goodwin	2004/2016
003703	Historic	Trash scatter	Craft	2007/2011
003705	Historic	Trash scatter	Craft	2007/2011
004284	Historic	Foundation, Trash scatter	Bray	2011
004285	Historic	Foundation	Bray	2011
004286	Historic	Trash scatter	Bray	2011
004287	Historic	Trash scatter	Bray	2011
004693	Historic	Trash scatter	Rehor	2011
004719	Historic	Foundation, Trash scatter	Duke	2012
101034	Pre-Historic	Projectile Point	Hoffman	2015
180638	Historic	Trash scatter	O Brien	2013
187071	Historic	Single-Family Property	Ewing	2001/2009
190790	Historic	Single-Family Property	Kachour	2013/2014
190791	Historic	Single-Family Property	Kachour	2013
190792	Historic	Single-Family Property	Kachour	2013/2014
190793	Historic	Single-Family Property	Kachour	2013/2014
190794	Historic	Single-Family Property	Kachour	2013
190795	Historic	Single-Family Property	Kachour	2013
190796	Historic	Single-Family Property	Kachour	2013
190797	Historic	Single-Family Property	Kachour	2013
190798	Historic	Single-Family Property	Kachour	2013
190799	Historic	Single-Family Property	Kachour	2013
190802	Historic	Commercial Building	Kachour	2014
190817	Historic	Multiple-Family Building	Potter	2010
190818	Historic	Single-Family Property	Potter	2010
190819	Historic	Single-Family Property	Potter	2010
190820	Historic	Single-Family Property	Potter	2010

Source: Tierra Environmental Services, *Cultural Resources Report*; January 2021.

Pedestrian Survey

Pedestrian surveys of the project area were conducted on November 15, 2020, and January 23, 2021. Area surveys were accomplished through 10 meter transect intervals with careful attention paid to exposed areas, rodent backfill, and road cuts.

The project area is heavily disturbed and largely cleared of vegetation, with instances of desert scrub type habitat which are dominated by species of creosote (*Larrea tridentata*) and instances of Rubber rabbitbrush (*Ericameria nauseosa*). The property exhibits significant disturbance generated by off-road activities and there are extensive examples of developed and regularly used trails and paths. There is also evidence of decades of mixed rural and agricultural usage from arable and livestock use. There is evidence of modern dumping and trash piles, as well as the remnants of former residences.

Surface visibility ranges from 10 percent to 100 percent with an overall visibility of 75 percent. There is a buried gas pipeline which bisects the northernmost portion of the APE which trends east-west adjacent to Lockheed Way, and there is a buried Pacific Bell telephone cable along the easternmost portion of the project area, which trends north-south adjacent to 10th Street East. Two historic era trash scatters (P-19-003705 and P-19-004287) were previously recorded in the project area.

The intensive archaeological survey did not result in the identification or recordation of any new cultural resources or historic properties within the project area.

PROJECT IMPACTS

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

Less Than Significant Impact With Mitigation Incorporated: Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. A record search prepared for the project site did not identify any recorded historic era-built environment resources on the project site. A records search was procured from the South-Central Coastal Information Center (SCCIC) to identify any previously recorded archaeological and historic-era resources within the project area and to determine the types of resources that might occur. The records search provided by the SCCIC revealed that 36 investigations have been previously conducted within a one-mile radius of the project area. Additionally, the record search indicated that 31 cultural resources or historic properties have been previously identified within a one-mile radius of the project area.

A pedestrian survey conducted on the project site did not show any evidence of historical resources being present. Due to the absence of intact significant cultural resources within the project site and the anticipation that potential subsurface components would not hold sufficient integrity, an archaeological monitor is not recommended for the project as described. However, if during the course of the project, there are any project changes which would result in a deviation from the current project site, then an archaeological monitor or formal evaluation may be required to avoid potential inadvertent impacts to historical cultural resources.

The project site is vacant with no prior uses occurring on the property. Because historical resources have been known to occur within the region, there is the potential that unknown historical cultural resources could be encountered during excavation activities. To avoid adverse impacts to unknown historical resources, Mitigation Measures CR-1 and CR-2 are required. With implementation of

Mitigation Measures CR-1 and CR-2, potential impacts to unknown historical resources would be less than significant.

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

Less Than Significant Impact With Mitigation Incorporated: Implementation of the proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. As previously indicated, a record search and pedestrian survey conducted on the project site did not identify any known archaeological resources. Therefore, no direct impacts to known archaeological resources would occur. Because cultural resources have been known to occur within the region, there is the potential that unknown archaeological resources could be encountered during excavation activities. To avoid potential impacts to unknown archaeological resources, Mitigation Measures CR-1 and CR-2 are required which would reduce potential impacts to unknown archaeological resources to less than significant.

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

Less Than Significant Impact: No human remains or cemeteries are known to exist within or near the project site. However, there would always be the potential that subsurface construction activities associated with the proposed project could encounter and potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. With the implementation of Mitigation Measure CR-3, potential impacts to human remains would be less than significant.

MITIGATION MEASURES

CR-1: In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and an archaeologist meeting the Secretary of Interior's professional qualification standards in archaeology shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) and Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

Should the find be deemed significant, as defined by CEQA (as amended, 2015), the project applicant shall retain two professional rotating Tribal Monitors, one procured to represent the YSMN and another to represent FTBMI, to observe all remaining ground-disturbing activities including, but not limited to, grading, leveling, clearing, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, driving posts, auguring, blasting, stripping topsoil or similar activity, and archaeological work. Additionally, the project archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN and FTBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-2: During the pre-grade meeting, the team will present a Cultural Resources Worker Environmental Awareness Program (WEAP) training to review the project cultural resources mitigation measure, provide information on the cultural and archaeological sensitivity of the site, describe the types of cultural resources that may be present, and present the protocols that must be followed in the event of a cultural resource discovery. The WEAP informs contractor and applicant staff of regulatory compliance requirements and potential penalties if protocols are not observed. All field contractor personnel must complete the training. Additional training sessions can be offered if workers are not available for the initial training, or the training can be recorded.

CR-3: The Lead Agency and project applicant shall, in good faith, consult with both the FTBMI and the YSMN Nation Cultural Resources Department on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

CR-4: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

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4.6 Energy

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on an Energy Impact Study prepared by RK Engineering Group, Inc., on March 29, 2023. The report is presented in Appendix A, *Air Quality, Greenhouse Gas, and Energy Impact Study.*

The energy analysis evaluates the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3). To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

Regulatory Framework

The regulatory setting related to energy conservation is primarily addressed through state and county regulations, which are discussed below.

STATE

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976, the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants, that effectively resulted in a moratorium of any new nuclear generating plants in California. The following details specific regulations adopted by the State to reduce the consumption of energy.

California Code of Regulations (CCR) Title 24, Part 6

The CEC is also responsible for implementing the CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Part 6) that were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. In 2008,

California set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008, the standards have been incrementally moving to the 2020 goal of zero-net-energy use. On January 1, 2020, the 2019 standards went into effect, that have been designed so that the average new home built in California will now use zero-net-energy and that non-residential buildings will use about 30 percent less energy than the 2016 standards due mainly to lighting upgrades. The 2019 standards also encourage the use of battery storage and heat pump water heaters, require the more widespread use of LED lighting, as well as improve the building's thermal envelope through high performance attics, walls, and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CALGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CALGreen Building Standards are also updated every three years and the current version is the 2019 California Green Building Standard Code that became effective on January 1, 2020.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduce energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provides design requirements for buildings in tsunami zones, increases Minimum Efficiency Reporting Value (MERV) for air filters from eight to 13, increased electric vehicle charging requirements in parking areas, and sets minimum requirements for use of shade trees.

THRESHOLDS OF SIGNIFCANCE

The new 2018 amendments and additions to the CEQA Checklist now includes an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Since the Energy Section was just added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis.

However, the 2018 *Guidelines for the Implementation of the California Environmental Quality Act,* provide the following direction on how to analyze a project's energy consumption:

> *"If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the lead agency."*

If the proposed project creates inefficient, wasteful, or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

PROJECT IMPACTS

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

Less Than Significant Impact With Mitigation Incorporated: The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below:

- Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for onsite distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. According to the City's General Plan EIR, Los Angeles County consumed approximately 65,650 GWh of electricity in the year 2020.

- Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating,

cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. According to the City's General Plan EIR (Chapter 4.6, Energy, p. 4.6-7), Los Angeles County consumed approximately 2,937 million U.S. Therms or 273,065 billion Btu in the year 2020.

- Petroleum-based fuels currently account for a majority of California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). According to the City's General Plan EIR, Los Angeles County consumed 301,000,000 gallons of diesel in the year 2020.

CONSTRUCTION ENERGY

The construction activities for the proposed project are anticipated to include site preparation, grading, building construction, paving, and architectural coating. The proposed project would consume energy resources during construction in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips;
2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

CONSTRUCTION RELATED ELECTRICITY

During construction, the proposed project would consume electricity to construct the new structures and infrastructure. Electricity would be supplied to the project site by Southern California Edison (SCE) and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on energy use. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

CONSTRUCTION RELATED NATURAL GAS

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

CONSTRUCTION RELATED PETROLEUM FUEL USE

To evaluate worst case scenario, the energy analysis evaluates a construction energy consumption condition where phase one and phase two of the proposed project would be developed concurrently with development occurring on Lots 12, 16, and 20.

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road vehicles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site. Table 4.6-1, *Construction Off-Road Equipment Energy Consumption*, shows the project's energy consumption for all off-road equipment during construction. All off-road equipment is assumed to run on diesel fuel. Table 4.6-2, *Construction On-Road Energy Consumption*, shows the project's energy consumption from on-road vehicle trips during construction.

Construction activities associated with the proposed project would be required to adhere to all state and AVAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Table 4.6-1
Construction Off-Road Equipment Energy Consumption

Phase	Phase Duration (Days)	Equipment	Amount	Hours/ Day	Diesel Fuel Consumption by Phase (gal)	MBtu
Site Preparation	7	Rubber Tired Dozers	3	8	1,709.4	234.842
		Tractors/Loaders/Backhoes	4	8		
Grading	28	Excavators	2	8	8,513.0	1,169.520
		Graders	1	8		
		Rubber Tired Dozers	1	8		
		Scrapers	2	8		
		Tractors/Loaders/Backhoes	2	8		
Building Construction	286	Canes	1	7	31,533.7	4,332.137
		Forklifts	3	8		
		Generator Sets	1	8		
		Tractors/Loaders/Backhoes	3	7		
		Welders	1	8		
Paving	14	Pavers	2	8	965.5	132.641
		Paving Equipment	2	8		
		Rollers	2	8		
Architectural Coating	14	Air Compressors	1	6	80.6	11.078
Total Energy Requirements					**42,802.2**	**5,880.218**

Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Table 4.6-2
Construction On-Road Trips Energy Consumption

Fuel Type	Fuel Consumption
Gasoline	25,791.79 gallons
Diesel	58,890.95 gallons
MBTU	11,196.58 MBtu

Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

OPERATIONAL ENERGY

To evaluate worst case scenario, the energy analysis evaluates an operational energy consumption condition where phase one and phase two of the proposed project would be developed concurrently with development occurring on Lots 12, 16, and 20.

The project will use electricity for many different operational activities including, but not limited to, building heating and cooling, lighting, appliances, electronics, mechanical equipment, and parking lot lighting. Indirect electricity usage will also be required to supply, distribute, and treat water and wastewater. Electricity will be provided to the site by SCE.

OPERATION RELATED ELECTRICITY

Operation of the proposed project would result in consumption of electricity at the project site. Table 4.6-3, *Project Electricity Consumption*, shows the project's estimated operation electricity consumption in kilowatt-hours per year and millions of Btu per year.

Table 4.6-3
Project Electricity Consumption

Land Use/Activity	Kilowatt-hours per Year (kWh/year)[2]	Millions Btu per Year (MBtu/year)[2]
General Heavy Industry	1,918,547.00	6,546.08
General Office Building	1,782,029.00	6,080.28
Parking Lot	419,363.00	1,430.87
Water Supply and Treatment	384,587.36	1,312.21
Electric Vehicle Charging	0.00	0.00
Total	**4,504,526.36**	**15,369.44**

Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

The operations-related electricity use would be nominal, when compared to current electricity usage rates in the Los Angeles County area. It should be noted that the proposed project would comply with all federal, state, and city requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed buildings, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into all of the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, impacts with electrical supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

OPERATION-RELATED NATURAL GAS

Operation of the proposed project would result in increased consumption of natural gas at the project site. Table 4.6-4, *Project Natural Gas Consumption*, shows the project's estimated operation natural gas consumption in millions of Btu per year.

Table 4.6-4
Project Natural Gas Consumption

Land Use/Activity	Millions Btu per year (MBtu/yr)[2]
General Heavy Industry	8,560.39
General Office Building	2,534.65
Total	**11,095.04**

Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

The operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the Los Angeles County area. It should be noted that the proposed project would comply with all federal, state, and city requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

OPERATIONS RELATED PETROLEUM FUEL USE

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. Table 4.6-5, *Annual Operational Trips Energy Consumption – General Heavy Industry*, and Table 4.6-6, *Annual Operational Trips Energy Consumption – General Office Building*, show the project's petroleum energy consumption for the project's general heavy industry trip generation and general office building trip generation.

Table 4.6-5
Annual Operational Trips Energy Consumption – General Heavy Industry

Fuel Type	Fuel Consumption
Gasoline	57,137.95 gallons
Diesel	24,663.73 gallons
MBtu	11,196.58 MBtu
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.	

Table 4.6-6
Annual Operational Trips Energy Consumption – General Office Building

Fuel Type	Fuel Consumption
Gasoline	62,082.21 gallons
Diesel	7,297.54 gallons
MBtu	8,479.04 MBtu
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.	

The operations-related petroleum use would be nominal, when compared to current petroleum usage rates in the Los Angeles County area. Therefore, it is anticipated the proposed project would be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts in regard to transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

ENERGY CONSUMPTION SUMMARY

Table 4.6-7, *Annual Operational Energy Consumption*, shows the project's annual operation energy consumption for electricity, natural gas, and petroleum.

Table 4.6-7
Annual Operational Energy Consumption

Energy Type	Energy Consumption (MBtu/year)
Electricity	15,369.44
Natural Gas	11,095.04
Petroleum	18,748.44
Total	**45,212.92**

Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

The proposed project would comply with regulatory compliance measures outlined by the state and county related to air quality, greenhouse gas emissions (GHG), transportation/circulation, and water supply. Additionally, the proposed project would be constructed in accordance with all applicable City Building Codes which would minimize energy consumption. Recent court rulings (*League to Save Lake Tahoe Mountain Area Preservation Foundation, et al. v. County of Placer, et al)* indicate that when determining if a project would have a potentially significant impact to energy conservation, the analysis should consider whether any renewable energy features could be incorporated into the project. By requiring rooftop solar panels as part of the project's design the proposed project would be compatible with recent court rulings regarding the use of renewable energy sources and would ensure that wasteful, inefficient, or unnecessary consumption of energy would be minimized. With implementation of Mitigation Measure E-1, potential impacts associated with wasteful, inefficient, or unnecessary consumption of energy would be less than significant.

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

Less Than Significant Impact: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project is not expected to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project will purchase electricity through Southern California Edison which is subject to the requirements of California Senate Bill 100 (SB 100). SB 100 is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. The project would also comply with the mandatory requirements of California's Green Building and Building Energy Efficiency standards that promote renewable energy and energy efficiency. Implementation of the proposed project would not conflict with or obstruct a state plan for renewable energy or energy efficiency.

The applicable energy plan for the proposed project would be the City of Palmdale's adopted Energy Action Plan which includes energy conservation and energy efficiency strategies intended to enable the state and the City of Palmdale to achieve energy conservation goals. The proposed project's

consistency with the applicable energy-related policies is shown in Table 4.6-8, *Proposed Project Consistency with Palmdale Energy Action Plan*.

Table 4.6-8
Proposed Project Consistency with Palmdale Energy Action Plan

Policy	Proposed Project Implementation Actions
Goal 1: Reduce energy demand through energy conservation and efficiency.	
Measure 1.3: Encourage new development to exceed Title 24 energy use requirements by 15 percent.	**Consistent.** The proposed project would be designed to meet or exceed the 2022 Title 24 Part 6 building standards that require enhanced insulation and installation of energy-efficient appliances in order to reduce energy usage and encourage conservation of energy resources.
Measure 1.4: Reduce the urban heat island effect to reduce energy consumption and cool the local climate through increased shading on private property, cool surfaces, and high albedo surface for sidewalks and parking lots.	**Consistent:** In accordance with the City of Palmdale Zoning Code, at least 10 percent of the project site shall be landscaped. Table 3-7, *Landscape Summary*, identifies the amount of landscape and percentage of site landscaping for each building lot which would help reduce the urban heat island effect by increasing shading on private property, cooling surfaces, and high albedo surface for sidewalks and parking lots.
Measure 3.2: Encourage the commercial and industrial sector to meet energy needs through onsite renewable energy sources.	**Consistent**. To minimize energy consumption, as a Project Design Feature, each of the buildings would be provided with solar panels. The final location and orientation of them will be identified at Site Plan Review.

As shown in Table 4.6-8, the proposed project would be consistent with all applicable energy-related policies from the City of Palmdale Energy Action Plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

MITIGATION MEASURES

E-1: The project will include solar panels for each building. The final location and orientation of the solar panels will be identified at Site Plan Review.

4.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative 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?	☐	☒	☐	☐

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on the Appendix D1, *Geotechnical Investigation Reports* prepared for the PBP Industrial Project prepared by Bruin Geotechnical Services in March 2019. The paleontological analysis is based on the Appendix D2, *Paleontological Review Memorandum* prepared by VCS Environmental on March 24, 2023.

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.

No Impact: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.

The Alquist-Priolo Earthquake Fault Zoning Act (Act) regulates development near active faults to mitigate the hazards of surface fault-rupture. An active fault is one that has experienced earthquake activity in the past 11,000 years. Under the Act, the State Geologist is required to delineate special study zones along known active faults, known as Alquist-Priolo Earthquake Fault Zones. The Act also requires that prior to approval of a project, a geologic study be prepared to define and delineate any hazards from surface rupture and required building setbacks be established from any known trace hazard. According to the project geotechnical report found in Appendix D1 and the California Geologic Survey Seismic Hazards Map (Lancaster West Quadrangle), there are no Alquist-Priolo Earthquake Fault Zones on the project site or in the nearby area. Therefore, the proposed project would not directly or indirectly be exposed to ground rupture impacts. Therefore, no ground rupture impacts would occur.

ii) Strong seismic ground shaking?

Less Than Significant Impact: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. The project site is situated within a seismically active region that could be subject to ground shaking impacts from active faults in the region. The San Andreas Fault zone is the largest active fault rift zone, which is several miles wide, and passes through the Antelope Valley south of the subject site, extending from the Gulf of Mexico through the western portion of the state of California to a point at Cape Mendocino in northern California. The San Andreas Fault is predicted to have an event every 100-200 years based on geologic records. The San Andreas Fault has had two major eruptions in the last 150 years: 1) in the southern California area in 1857, and 2) in San Francisco in 1906. In each event, approximately 320 kilometers of surface rupture has taken place, as well as a horizontal displacement of approximately nine meters. Additional faulting has occurred adjacent to the San Andreas Fault causing numerous events of various magnitudes throughout the length of the San Andreas Fault.

According to Appendix D1, Geotechnical Investigation Reports, the project site is located north of an area in which active seismic occurrences are recorded on a yearly basis. Seismic studies conducted show a major break along the San Andreas Fault could be responsible for an event of approximately 8.4 on the Richter scale. A seismic event of this magnitude could cause bedrock accelerations as large as 0.5g. Events of this magnitude are anticipated to occur approximately every 150 years. The last occurrence of this magnitude was in 1857. The

potential seismic shaking risks at the project site would be like other areas in southern California. The proposed structures on the project site would be required to be designed to meet the City's construction development standards and the seismic design parameters of the California Uniform Building Code to withstand potential seismic shaking impacts caused by an earthquake within an acceptable level of risk. Compliance with the City construction development standards and the California Uniform Building Code Seismic Safety Standards would minimize risks related to seismic shaking impacts. Therefore, the proposed project would not expose people or structures to potential adverse effects of ground shaking. Potential impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction. Liquefaction is the phenomenon in which loosely deposited soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subject to strong earthquake induced ground shaking. Liquefaction is known generally to occur in saturated or near-saturated cohesion-less soils at depths shallower than 50 feet below the ground surface.

Based on the geotechnical report found in Appendix D1, the project site soils consist of relatively firm silty sand, poorly graded sand, and sandy silt with groundwater depth of over 200 feet. Based on our review of the Seismic Hazards Map (Lancaster West Quadrangle), the site is not located in an area requiring a liquefaction analysis and the potential for onsite liquefaction or seismically induced dynamic settlement should be negligible. Potential liquefaction hazard impacts would be less than significant.

iv) Landslides?

No Impact: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. The project site is relatively flat with no steep topographic slopes. The project geotechnical report did not identify the presence of landslides on the project site. Additionally, according to the California Geologic Survey Landslide Hazards Map (Lancaster West Quadrangle), the project site is not located within a zone susceptible to earthquake-induced landslides. Also, the project does not propose to create slopes or features that would increase the landslide potential beyond existing conditions. No impacts regarding potential landslide impacts would occur.

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

Less Than Significant Impact With Mitigation Incorporated: The construction of the proposed project would require grading of all of the project site. The land clearing and grading activities associated with the development of the site would uncover soil, which could be subject to erosion impacts caused by water and wind. Additionally, construction equipment and vehicles could indirectly transport sediment to offsite locations. The proposed grading would be over one acre. The State Regional Water Resources Control Board requires construction projects which disturb one or more acres of soil to obtain coverage under a general construction permit issued from the State Water Resources Control Board. The General Construction Permit would require the filing of a Notice of Intent with the State Water Resources Control Board and the preparation of a Storm Water Pollution

Prevention Plan (SWPPP). The SWPPP would provide a list of Best Management Practices to reduce impacts related to substantial soil erosion or the loss of topsoil to a less than significant level. Additionally, the proposed project would be required to comply with the Grading Code related to minimize erosion. With implementation of Mitigation Measure HWQ-1, potential impacts related to substantial soil erosion, or the loss of topsoil would be less than significant.

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

Less Than Significant Impact With Mitigation Incorporated: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. The potential impacts associated with landslides, liquefaction, lateral spreading, dynamic settlement, subsidence, and soil lurching are discussed below and have been determined to be less than significant.

LANDSLIDES

According to the California Geologic Survey Landslide Hazards Map (Lancaster West Quadrangle), the project site is not located within a zone susceptible to earthquake-induced landslides. Due to the relatively low topographic relief on the site, the potential for landslides on the site is considered low.

LIQUEFACTION

As previously identified from the project geotechnical investigation report found in Appendix D1, the potential for ground failure and liquefaction would be low.

OTHER LIQUEFACTION ASSOCIATED HAZARDS

Potential hazards associated with liquefaction include lateral spreading and slow slides, foundation bearing failure, and ground surface settlement. Considering the upper 50 feet of the native soils are not likely to liquefy, these hazards are not considered to be a constraint for the project.

SOIL SETTLEMENT

Differential soil settlement occurs when supporting soils are not uniform in density or classification and seismic shaking causes one type of soil to settle more than the other. When unaccounted for in design, such settlement can result in damage to structures, pavement, and subsurface utilities. Soils with potential for hydro consolidation can also cause differential settlement under loading conditions and the induction of moisture. Re-compaction of the upper site soils would remedy most potentials of settlement due to structures supported on native soils with non-uniform densities, soil classifications and hydro-consolidation. Settlement of structures founded on compacted fill will be relatively small, less than one inch. Differential settlement is anticipated to be on the order of 50 percent of the total settlement in a 30-foot span. Most settlement should take place during construction.

With consideration of the above geotechnical issues, the geotechnical report (Appendix D1) prepared for the project determined that the project is feasible from a geotechnical standpoint and provided the following conclusions and recommendations to be incorporated into the site design, grading, and construction for the project. Additionally, the project geotechnical report determined that the grading and construction of the project would not adversely affect the stability of adjoining properties provided

that grading and construction are performed in compliance with the recommendations presented in the geotechnical report. With implementation of Mitigation Measure GEO-1, potential geologic and soil impacts would be less than significant.

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

Less Than Significant Impact: The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. Expansive soils are defined as fine grained silts and clays which are subject to swelling and contracting. The amount of swelling and contracting would be subject to the amount of fine-grained clay materials present in the soils and the amount of moisture either introduced or extracted from the soils. Subsurface evaluation conducted as part of the geotechnical evaluation found in Appendix D1, *Geotechnical Investigation Reports*, indicates that the onsite soils consist of relatively firm silty sand, poorly graded sand, and sandy silt with groundwater depth of over 200 feet. Based on the results of preliminary laboratory testing, site soils are non-expansive. Therefore, since the project is not located on expansive soil, impacts in regard to creating substantial direct or indirect risks to life or property would be less than significant.

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?

No Impact: The project does not propose the use of septic tanks or alternative wastewater disposal systems. Therefore, no potential impacts associated with providing septic tanks or alternative wastewater disposal systems would occur.

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

Less Than Significant Impact With Mitigation Incorporated: Implementation of the project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The paleontological records search associated with the City's General Plan, compiled by Reynolds in 1990, showed that paleontological localities have been recorded between the intersection of Pearblossom Highway and the California Aqueduct and Little Rock Wash. The sites produced fossil horse teeth, mammoth tooth fragments as well as rabbit, bird, carnivores, and rodent tooth and bone fragments. The Ana Verde formation along the San Andreas rift zone was found to be an ancient lake deposit containing fossil plants. The City's low-lying areas consist of Quaternary alluvium which is known to contain numerous vertebrate fossils (City of Palmdale 1993).

A paleontological records search was then conducted for the PBP Industrial Park using the San Bernardino County Museum (SBCM) database. The results of this records search were received at VCS on August 25, 2022. Several fossil localities are present within five miles of the project site. The closest locality is approximately 1.3 miles west-southwest of the project site. Twenty-two fossil sites are associated with this locality and the furthest locality from the project site is only 1.75 miles away. These sites are derived from the unnamed Quaternary units (*Qf*, *Qya*, and *Qoa*). The bulk of the fossils from these localities are microfossils, obtained through the wet screening of paleosols (buried ancient soils) present in the units (SVP 2019, Kottkamp 2022). Approximately 3.9 miles from the project site, several localities have been collected from exposures of the Ritter Formation, as well as all three members of

the Anaverde Formation. The fossils recovered include plant material such as leaves (Kottkamp 2022). A molar and limb bone from a Columbian Mammoth (*Mammuthus columbi*) were found 3.1 miles south southwest of the project site. This locality is recorded from the Miocene Anaverde Formation. As the Columbian Mammoth had not developed yet, it is likely this locality was deposited in an eroded channel within the Anaverde Formation. This channel would likely have been deposited contemporaneously with the *Qoa*, but within a channel cut into the Anaverde Formation (Kottkamp 2022). Finally, the geologic type-section of the Anaverde Formation, which hosts the Anaverde Flora, is approximately 4.5 miles southwest of the project site. The Anaverde Flora fossils, featuring 19 species of plants, come from the Clay Shale Member of the Anaverde Formation (Kottkamp 2022).

No fossils have been found to date within the proposed project site.

The units exposed (*Qa* and *Qya*) and the one likely present on the project site (*Qoa*) have varying degrees of paleontological sensitivity. Recommendations regarding monitoring of the units onsite can be found in Table 4.7-1, *Paleontological Sensitivity for Units Present on the Project Site*, (Scott and Springer 2003, SVP 2019). Should the Harold Formation (*Qh*), the Ritter Formation (*TQr*), or any of the four members of the Anaverde Formation (*Ta*, *Tar*, *Tac*, or *Tag*) be exposed during grading efforts, they should be regarded as having the same high sensitivity level as the "Quaternary older alluvium" (*Qoa*). Field personnel will be able to determine the presence of Quaternary recent sediments (*Qf*).

Table 4.7-1
Paleontological Sensitivity for Units Present on the Project Site

Geologic Unit	Map Symbol	Age	Sensitivity
Quaternary recent sediments	*Qf*	Recent	None
Quaternary younger fan deposits	*Qyf*	Middle Holocene	Low
Quaternary older alluvium	*Qoa*	Late Pleistocene	High
Source: VCS Environmental, *Paleontological Review Memorandum*; March 24, 2023.			

Excavations into the recent sediments (*Qf*), should be monitored on a spot-check basis, in order to recognize the more sensitive units which may grade into each other below. Due to their low sensitivity, the younger fan deposits should be monitored on a part-time basis. The older alluvium and the sensitive named formations (encountered 3-5 feet bgs) discussed above should be monitored full-time (City of Palmdale 1993, Scott and Springer 2003, SVP 2019).

Therefore, it is recommended that any excavations in excess of three feet on the project site should be closely monitored to quickly and professionally recover any fossil remains while not impeding development. Monitors should be equipped to salvage fossils, as they are unearthed, to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially fossiliferous units described are not present, or, if present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources. With implementation of Mitigation Measures PALEO-1, PALEO-2, and PALEO-3, potential impacts to paleontological resources would be less than significant.

MITIGATION MEASURES

HWQ-1: Prior to the issuance of a grading permit, the project will demonstrate that it has obtained coverage under a general construction permit issued from the State Water Resources Control Board, filed a Notice of Intent with the State Water Resources Control Board and prepared a Storm Water Pollution Prevention Plan (SWPPP).

GEO-1: Prior to issuance of grading permits, the applicant shall confirm that grading and construction plans for the project incorporate design recommendations provided in Appendix D1, *Geotechnical Investigation Reports*, prepared by Bruin Geotechnical in March 2019 and are submitted to the City of Palmdale. The design recommendations shall address site earthwork; remedial grading for building pads, retaining walls, asphalt-concrete, fill placement and compaction, native soil shrinkage, fill slope construction, imported slopes, grading observation and testing, pad drainage, foundation design, allowable bearing capacity, lateral load resistance, footing reinforcement, foundation setbacks, below grade retaining walls and structures, corrosion and chemical attack, excavations, utility trenches and backfill, interior concrete slab on grade, exterior concrete flatwork, rigid pavement, preliminary pavement design and construction considerations.

PALEO-1: Once earthmoving reaches three feet below the original ground surface, excavation shall be monitored under the direct guidance of a qualified paleontologist.

PALEO-2: The project shall retain a qualified paleontologist to review the approved development plan and shall conduct any pre-construction work necessary to render appropriate monitoring and mitigation requirements as appropriate. These requirements shall be documented by the project paleontologist in a Paleontological Resource Impact Mitigation Program (PRIMP). This PRIMP shall be submitted to the City's Community Development Department for review and approval prior to issuance of a Grading Permit. Information to be contained in the PRIMP shall meet the Society of Vertebrate Paleontology standards.

PALEO-3: If paleontological resources are detected and recovered during monitoring, a report must be prepared. The following items must be presented in the report: recovered specimens must be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. The recovered fossils must be identified and curated into a professional, fully accredited museum repository with permanent retrievable storage (e.g., NHMLAC). The qualified paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. The report and inventory, when submitted to the lead agency, will signify completion of the program to mitigate impacts to paleontological resources.

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4.8 Greenhouse Gas Emissions

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on an Air Quality and Greenhouse Gas Impact Study prepared by RK Engineering Group, Inc. on March 29, 2023. The report is presented in Appendix A, *Air Quality, Greenhouse Gas, and Energy Impact Study.*

The greenhouse gas analysis evaluates the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3). To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

Background

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHGs), play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor: Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life.

Changes in its concentration are primarily considered a result of climate feedback related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there also is dynamics that put the positive feedback loop in check.

Carbon Dioxide: The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane: CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and Chlorofluorocarbons (CFCs)). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons: CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely

successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride: Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols: Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

GLOBAL WARMING POTENTIAL

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. The GHGs listed by the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2e. As such, the GWP of CO_2 is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in CARB's 2014 Scoping Plan Update and the CalEEMod Model Version 2016.3.2 and are detailed in Table 4.8-1, *Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs*. The IPCC has updated the Global Warming Potentials of some gases in their Fifth Assessment Report; however, the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

Table 4.8-1
Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs

Gas	Atmospheric Lifetime (years)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Abbreviations: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion
Notes:
[1] Defined as the half-life of the gas.
[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel on Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2016.3.2).
Source: IPCC 2007, EPA 2015.

EXISTING SETTING

Local Emissions Inventory

According to the City's General Plan Final EIR, community wide emissions totaled 1,042,248 $MTCO_2e$ in 2017. Table 4.8-2, *Palmdale Community Energy Consumption by Sector 2017*, lists the results of the 2017 GHG inventory by each community section.

Table 4.8-2
Palmdale Community Energy Consumption by Sector 2017

Community Sector	Subsector	$MTCO_2e$
Transportation	On-Road Transportation	615,601
Nonresidential Energy	Electricity	119,700
	Natural Gas	42,310
Residential Energy	Electricity	90,470
	Natural Gas	107,080
Water	Water Use	27,900
Solid Waste	Landfilled Waste	30,490
Off-Road	Lawn and Garden Equipment	1
	Construction Equipment	680
	Total	**1,042,248**

Note: Totals may not add directly due to rounding.
Source: City of Palmdale, *City of Palmdale 2045 General Plan Update Final Environmental Impact Report* (page 4.8-3); August 2022.

Significance Thresholds

The Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2016, (AVAQMD Guidelines) establishes air quality and greenhouse gas emissions thresholds for purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA.

According to the AVAQMD Guidelines, any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

- Generates total emissions (direct and indirect) in excess of the thresholds given; refer to Section 4.3, *Air Quality*, Table 4.3-5, *Annual Operational Air Quality Emissions*.
- Generates a violation of any ambient air quality standard when added to the local background.[2]
- Does not conform with the applicable attainment or maintenance plan(s).
- Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

A significant project must incorporate mitigation to sufficiently reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Table 4.8-3, *AVAQMD Significant Emissions Threshold*, lists the significant emissions threshold for AVAQMD.

Table 4.8-3
AVAQMD Significant Emissions Threshold

Pollutant	Annual Thresholds (tons/year)	Daily Thresholds (lbs/day)
Greenhouse Gases (CO_2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.		

[2] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

PROJECT IMPACTS

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

Less Than Significant Impact: The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment. To minimize GHG emissions, the project would be required to comply with the mandatory requirements of the California Building Standards Code, Title 24, Part 6 (Energy Code) and Part 11 (CALGreen), including, but not limited to, installing low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and reduce the amount of turf, provide the necessary infrastructure to support electric vehicle charging and participate in the local waste management recycling and composting programs. The project's GHG emissions have been calculated using CalEEMod and are presented in the tables below. Greenhouse gas emissions are estimated for annual and daily construction and operational activities.

CONSTRUCTION GREENHOUSE EMISSIONS

To evaluate worst case scenario, the greenhouse gas analysis evaluates construction related greenhouse gas emissions generated from construction of phase one and phase two of the proposed project concurrently with construction occurring on Lots 12, 16, and 20.

Table 4.8-4, *Annual Construction Greenhouse Gas Annual Emissions*, shows the proposed project's annual construction greenhouse gas emissions estimated and compares the results to the AVAQMD annual threshold of significance. The proposed project would not exceed the Annual Construction AVAQMD threshold.

Table 4.8-4
Annual Construction Greenhouse Gas Annual Emissions

Year	Annual GHG Emissions ($MTCO_2e$/year)
2023	668
2024	599
Maximum	**668**
AVAQMD Threshold	100,000
Exceeds Threshold?	**No**

Abbreviation: $MTCO_2e$/year = metric tons of carbon dioxide equivalents per year
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Table 4.8-5, *Daily Construction Greenhouse Gas Annual Emissions*, shows the proposed project's daily construction greenhouse gas emissions in pounds per day of carbon dioxide and compares the results to the AVAQMD daily threshold of significance. The proposed project would not exceed the Daily Construction AVAQMD threshold.

Table 4.8-5
Daily Construction Greenhouse Gas Annual Emissions

Year	Daily GHG Emissions (pounds of CO_2e/day)
2023	40,539
2024	5,712
Maximum	**40,539**
AVAQMD Threshold[1]	548,000
Exceeds Threshold?	**No**

Abbreviation: CO_2e/day = pounds of carbon dioxide equivalents per day
Note:
[1] Maximum emissions during summer and winter months.
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

OPERATIONAL GREENHOUSE EMISSIONS

To evaluate worst case scenario, the greenhouse gas analysis evaluates greenhouse gas emissions generated from the operation of the project.

Table 4.8-6, *Annual Operational Greenhouse Gas Annual Emissions*, shows the proposed project's annual operational greenhouse gas emissions and compares the results to the AVAQMD annual threshold of significance. The proposed project would not exceed the AVAQMD Annual Operational threshold.

Table 4.8-6
Annual Operational Greenhouse Gas Annual Emissions

Emission Source	Annual GHG Emissions ($MTCO_2e$/year)
Area	1,447.00
Energy	4.40
Mobile	1,588.00
Waste	179.00
Water	106.00
Refrigeration	8.66
Off-Road	533
Total Annual Emissions	**3,886.06**
AVAQMD Threshold	100,000
Exceeds Threshold?	**No**

Abbreviation: $MTCO_2e$/year = metric tons of carbon dioxide equivalents per year
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Table 4.8-7, *Daily Operational Greenhouse Gas Annual Emissions*, shows the proposed project's daily operational greenhouse gas emissions and compares the results to the AVAQMD annual threshold of significance. The proposed project would not be expected to exceed the Daily Operational AVAQMD threshold.

Table 4.8-7
Daily Operational Greenhouse Gas Annual Emissions

Emission Source	Daily GHG Emissions (pounds of CO_2e/day)
Area	12,969.0
Energy	53.8
Mobile	9,593.0
Waste	1083.0
Water	643.0
Refrigeration	52.3
Off-Road	4,688.00
Total Daily Emissions	**29,082.10**
AVAQMD Threshold	100,000
Exceeds Threshold?	**No**

Abbreviation: CO_2e/day = pounds of carbon dioxide equivalents per day
Source: RK Engineering Group, Inc., *Air Quality, Greenhouse Gas, and Energy Impact Study*; March 29, 2023.

Complying with the mandatory requirements of the California Building Standards Code, Title 24, Part 6 (Energy Code) and Part 11 (CALGreen), the proposed project's GHG emissions would be below the AVAQMD screening threshold, and the proposed project would not create a significant construction and operational impact from GHG emissions. Potential impacts would be less than significant.

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

Less Than Significant Impact: The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plan would be the California Air Resources Board's (CARB) 2022 Scoping Plan. The CARB 2022 Scoping Plan identifies additional GHG reduction actions and strategies necessary to achieve the AB 1279 target of 85 percent below 1990 levels by 2045. These actions and strategies build upon those identified in the first update to the Scoping Plan (2013) and in the second update to the Scoping Plan (2017). Although a number of these measures are currently established as statewide regulations, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions would be adopted as required to achieve statewide GHG emissions targets. The proposed project's consistency with the applicable measures in the CARB 2022 Scoping Plan are shown in Table 4.8-8, *Proposed Project Compliance with CARB's 2012 Scoping Plan Policies*.

Table 4.8-8
Proposed Project Compliance with CARB's 2022 Scoping Plan Policies

GHG Plan Policy	Proposed Project Consistency
GHG Emissions Reductions Relative to the SB 32 Target 40 percent below 1990 levels by 2030.	**Consistent.** Senate Bill 32 and Assembly Bill 197 have codified this emission target into statute that requires emissions reductions for sources covered by the SB 32 inventory, which includes new non-residential building construction. In order to achieve these emissions reduction targets, the CEC has increased the energy-efficiency standards in the most current 2022 Title 24, Part 6 building energy requirements that increases the onsite renewable energy generation requirements as well as requires the use of greater insulation and more efficient appliances that will reduce GHG emissions.
Smart Growth/Vehicle Miles Traveled (VMT) VMT per capita reduced 25 percent below 2019 levels by 2030, and 30 percent below 2019 levels by 2045.	**Consistent.** Senate Bill 375 directs each regional MPO (SCAG is MPO for project area) to adopt a SCS/RTP that meet this reduction target. Connect SoCal was prepared to meet these reduction targets. Table 4.8-9 below details how the proposed project would not conflict with the Connect SoCal. As such, the proposed project would not conflict with this strategy.
Light-Duty Vehicle (LDV) Zero-Emission Vehicles (ZEVs) 100 percent of LDV sales are ZEV by 2035.	**Consistent.** Executive Order N-79-20 requires all new LDVs sold in California to be zero-emission by the year 2035. The proposed project would be designed to meet the 2022 Title 24, Part 6 and Part 11 requirements that require the proposed parking lot to include designated spaces for ZEVs and include ZEV charging stations. As such, the proposed project would not conflict with this Strategy.
Aviation 20 percent of aviation fuel demand is met by electricity (batteries) or hydrogen (fuel cells) in 2045. Sustainable aviation fuel meets most or the rest of the aviation fuel demand that has not already transitioned to hydrogen or batteries.	**Not Applicable.** The proposed project would not utilize any aviation fuel.
Ocean-going Vessels (OGV) 2020 OGV At-Berth regulation fully implemented, with most OGVs utilizing shore power by 2027. 25 percent of OGVs utilize hydrogen fuel cell electric technology by 2045.	**Not Applicable.** The proposed project would not utilize any OGVs.
Port Operations 100 percent of cargo handling equipment is zero-emission by 2037. 100 percent of drayage trucks are zero emission by 2035.	**Not Applicable.** The proposed project would not impact any operations at any ports.
Freight and Passenger Rail 100 percent of passenger and other locomotive sales are ZEV by 2030. 100 percent of line haul locomotive sales are ZEV by 2035. Line haul and passenger rail rely	**Not Applicable.** The proposed project would not impact any freight or passenger rail operations.

Table 4.8-8
Proposed Project Compliance with CARB's 2022 Scoping Plan Policies

GHG Plan Policy	Proposed Project Consistency
primarily on hydrogen fuel cell technology, and others primarily utilize electricity.	
Oil and Gas Extraction Reduce oil and gas extraction operations in line with petroleum demand by 2045.	**Not Applicable.** The proposed project would not impact any oil and gas extraction activities.
Petroleum Refining CCS on majority of operations by 2030, beginning in 2028. Production reduced in line with petroleum demand.	**Not Applicable.** The proposed project would not impact any petroleum refining activities.
Electricity Generation Sector GHG target of 38 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2030 and 30 $MMTCO_2e$ in 2035. Retail sales load coverage134. 20 gigawatts (GW) of offshore wind by 2045. Meet increased demand for electrification without new fossil gas-fired resources.	**Consistent.** Senate Bill 100 (SB 100) requires that 100 percent of retail sales of electricity be generated by renewable or zero-carbon source of electricity by December 1, 2045. The proposed project would be designed to meet the most current 2022 Title 24, Part 6 building energy requirements that increases the onsite renewable energy generation requirements as well as requires the use of greater insulation and more efficient appliances that will reduce the proposed structures electrical usage. To minimize energy consumption, Mitigation Measure E-1 is recommended which includes installation of solar panels on each building.
New Residential and Commercial Buildings All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to six million heat pumps installed statewide by 2030.	**Not Applicable.** The project proposes an industrial development but would still be required to follow the new 2022 Title 24, Part 6 building energy requirements detail that all new structures with built-in appliances to be wired for electric appliances, regardless of if natural gas appliances are initially installed. As such, the proposed project would not conflict with this Strategy.
Existing Residential Buildings 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035. Appliances are replaced at end of life such that by 2030 there are three million all-electric and electric-ready homes—and by 2035, seven million homes—as well as contributing to 6 million heat pumps installed statewide by 2030.	**Not Applicable.** The proposed project would not include any existing residential buildings.
Existing Commercial Buildings 80 percent of appliance sales are electric by 2030, and 100 percent of appliance sales are electric by 2045. Appliances are replaced at end of life, contributing to six million heat pumps installed statewide by 2030.	**Not Applicable.** The proposed project would not include any existing commercial buildings.
Food Products Seven and one-half percent of energy demand electrified directly and/or indirectly by 2030; 75 percent by 2045.	**Not Applicable.** The proposed project would not include any commercial food production activities.

Table 4.8-8
Proposed Project Compliance with CARB's 2022 Scoping Plan Policies

GHG Plan Policy	Proposed Project Consistency
Construction Equipment 25 percent of energy demand electrified by 2030 and 75 percent electrified by 2045.	**Not Applicable.** Executive Order N-79-20 requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible, by 2035. All construction equipment fleets utilized during construction of the proposed project are required to be registered with CARB and meet CARB's current emission reductions regulations, which are anticipated to be updated to meet Executive Order N-79-20 requirements. As such, the proposed project would not conflict with this Strategy. During construction, the project would have the potential to generate DPM from off-road diesel equipment and trucks. Mitigation Measure AQ-2 is recommended to help ensure that the potential health risk impacts associated with DPM during construction is reduced to the maximum extent by requiring the use of electric powered equipment in lieu of diesel equipment where feasible.
Chemicals and Allied Products; Pulp and Paper Electrify 0 percent of boilers by 2030 and 100 percent of boilers by 2045. Hydrogen for 25 percent of process heat by 2035 and 100 percent by 2045. Electrify 100 percent of other energy demand by 2045.	**Not Applicable.** The proposed project would not include any pulp and paper production activities.
Stone, Clay, and Cement CCS on 40 percent of operations by 2035 and on all facilities by 2045. Process emissions reduced through alternative materials and CCS.	**Not Applicable.** The proposed project would not include any stone, clay, glass, and cement production activities.
Other Industrial Manufacturing Zero percent energy demand electrified by 2030 and 50 percent by 2045.	**Not Applicable.** The proposed project would not include any other industrial manufacturing activities.
Combined Heat and Power Facilities retire by 2040.	**Not Applicable.** The proposed project would not include any existing combined heat and power facilities.
Agriculture Energy Use 25 percent energy demand electrified by 2030 and 75 percent by 2045.	**Not Applicable.** The proposed project would not include any commercial agriculture activities.
Low Carbon Fuels for Buildings and Industry In 2030s, biomethane135 blended in pipeline. Renewable hydrogen blended in fossil gas pipeline at seven percent energy (~20 percent by volume), ramping up between 2030 and 2040. In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters.	**Not Applicable.** The proposed project would not include any production of fuels for buildings and industry.

Table 4.8-8
Proposed Project Compliance with CARB's 2022 Scoping Plan Policies

GHG Plan Policy	Proposed Project Consistency
Non-Combustion Methane Emissions Increase landfill and dairy digester methane capture. Some alternative manure management deployed for smaller dairies. Moderate adoption of enteric strategies by 2030. Divert 75 percent of organic waste from landfills by 2025. Oil and gas fugitive methane emissions reduced 50 percent by 2030 and further reductions as infrastructure components retire in line with reduced fossil gas demand.	**Not Applicable.** The proposed project would not include the operation of any landfill or dairy.
Low Carbon Fuels for Transportation Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.	**Not Applicable.** The proposed project would not include any production of fuels for transportation.
High GWP Potential Emissions Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions.	**Not Applicable.** The proposed project would not include the manufacturing of appliances that use low GWP refrigerants.
Truck ZEVs 100 percent of medium duty (MDV)/HDC sales are ZEV by 2040 (AB University of California Institute of Transportation Studies [ITS] report).	**Consistent.** Executive Order N-79-20 requires all new LDVs sold in California to be zero-emission by the year 2045. No trucks would be maintained by the proposed project or potentially charged on the project site. As such, the proposed project would not conflict with this Strategy.

CONNECT SOCAL

Senate Bill 375 (SB 375) requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. It is up to each MPO in the state (SCAG is the MPO for southern California) to adopt a SCS to meet the reduction target set by CARB for the southern California region. The Connect SoCal is the most current SCS adopted by SCAG that was prepared to meet a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels through new initiatives of land use, transportation, and technology. Table 4.8-9, *Proposed Project Compliance with Connect SoCal*, provides an evaluation of applicable goals and strategies to determine how the proposed project would be consistent with or exceed reduction strategies outlined in Connect SoCal.

Table 4.8-9
Proposed Project Compliance with Connect SoCal

Goals and Strategies	Proposed Project Consistency
Goal 1: Encourage regional economic prosperity and global competitiveness.	**Not Applicable.** This goal is directed at SCAG and the City and does not apply to the proposed project. This strategy calls on encouraging regional economic prosperity and global competitiveness. The proposed project would not interfere with such policymaking.

Table 4.8-9
Proposed Project Compliance with Connect SoCal

Goals and Strategies	Proposed Project Consistency
Goal 2: Improve mobility, accessibility, reliability, travel safety for people and goods.	**Consistent.** The project proposes to construct two industrial buildings and associated parking areas totaling 118,200 square feet that will provide the City with available and accessible industrial uses.
Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.	**Consistent.** The project would provide onsite and offsite sidewalks that would run around the perimeter of the project site and connect to the existing pathways. The project would improve public safety infrastructure in the vicinity of the project site by providing new security lighting within the project site and around the perimeter. The project would be subject to Site Plan review to ensure adequate vehicle and pedestrian safety provided throughout the project.
Goal 4: Increase person and goods movement and travel choices within the transportation system.	**Not Applicable.** This strategy calls on SCAG to increase person and goods movement and travel choices across the transportation system. The proposed project would not interfere with this goal.
Goal 5: Reduce greenhouse gas emissions and improve air quality.	**Consistent.** The project would generate criteria air pollutant and GHG emissions during construction and operation. However, emissions would not exceed the AVAQMD significance thresholds.
Goal 6: Support healthy and equitable communities.	**Consistent.** The project would be consistent with this goal by facilitating the use of alternative modes of transportation, which would aid in reducing car in provide EVS to reduce vehicle emissions and providing solar energy to reduce GHG emissions. The project includes onsite and offsite sidewalks to facilitate pedestrian travel.
Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**Not Applicable.** This goal is directed towards SCAG and does not apply to individual development projects.
Goal 8: Leverage new transportation technologies and date-drive solutions that result in more efficient travel.	**Not Applicable.** This goal is directed towards SCAG and does not apply to the proposed project. This strategy calls on SCAG to use new transportation technologies and data-driven solutions to increase efficiency. The proposed project would not interfere with this goal.
Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**Not Applicable.** The project proposes to construct two industrial buildings and associated parking areas totaling 118,200 square feet that will provide the City with available and accessible industrial uses.
Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.	**Consistent.** The project site is currently vacant and undeveloped and does not currently include any agricultural uses. As such, the project would not interfere with this goal.

Table 4.8-9
Proposed Project Compliance with Connect SoCal

Goals and Strategies	Proposed Project Consistency
Strategy 1: Focus growth near destinations and mobility options.	**Consistent.** The project is consistent with the City's General Plan and Zoning Code for planning industrial land uses and is near existing aircraft manufacturing and testing facilities, and U.S. Air Force properties.
Strategy 2: Promote diverse housing choices.	**Not Applicable.** The project proposes constructing two industrial buildings and associated parking areas totaling 118,200 square feet that will provide the City with available and accessible industrial uses. The proposed project would not interfere with strategy.
Strategy 3: Leverage technology innovations.	**Not Applicable.** This strategy is directed to SCAG and its jurisdictions and does not apply to the proposed project. This strategy aims to promote low emission technologies, improve access to services through technology, and identify ways to incorporate micro power grids into communities. The proposed project would not interfere with this strategy.
Strategy 4: Support implementation of sustainability policies.	**Consistent.** The proposed project would incorporate Green Building Measures, including water efficient landscaping, efficient lighting, low-flush toilets, and energy efficient appliances.
Strategy 5: Promote a Green Region.	**Consistent:** The proposed project would include open space areas and sidewalks around the perimeter of the project site. Additionally, the development would emphasize sustainability features that promote more resource efficient development including water efficient landscaping and efficient lighting.

As shown in Table 4.8-9, the proposed project would be consistent with the 2022 CARB Scoping Plan and would not conflict with any proposed goal or strategy in the Connect SoCal as shown in Table 4.8-9. Therefore, the proposed project would not conflict with the applicable plan for reducing GHG emissions. Impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

4.9 Hazards and Hazardous Materials

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on a Phase 1 Environmental Site Assessments prepared by Bruin Geotechnical Services Inc., on June 13, 2022.The assessments are presented in Appendix E, *Phase I Environmental Site Assessments*.

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

Less Than Significant Impact: Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Title 22 of the California Code of Regulations (CCR), Division 4.5, Chapter 11, Article 3, classifies hazardous materials into the following four categories based on their properties:

- Toxic (causes human health effects),
- Ignitable (has the ability to burn),
- Corrosive (causes severe burns or damage to materials), and
- Reactive (causes explosions or generates toxic gases).

Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications as well as in residential areas to a limited extent. Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. The health impacts of hazardous materials exposure are based on the frequency of exposure, the exposure pathway, and individual susceptibility.

The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The long-term operation of the proposed project would not be expected to involve the routine transport, use or disposal of hazardous materials in quantities or conditions that would pose a hazard to public health and safety or the environment. The operation of the proposed project could involve the use of cleaning products and an occasional use of pesticide activities and herbicides for landscape maintenance. The materials would be common for general maintenance and would not be stored in large quantities that pose a health hazard to the public. Potential impacts would be less than significant.

The construction operations associated with the proposed project would involve the handling of incidental amounts of hazardous substances, such as solvents, fuels and oil. The proposed project would be required to comply with local, state, and federal laws and regulations regarding the handling and storage of hazardous materials. The level of risk associated with the accidental release of hazardous substances would not be considered significant due to the small volume and low concentration of hazardous materials that would be utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid or minimize the potential for accidental release of hazardous substances into the environment. The most relevant measures would pertain to material delivery and storage, material use, and spill prevention and control. These measures would outline the required improvements and procedures for preventing impacts of hazardous materials to workers and the environment during construction. With compliance with local, state, and federal hazardous material laws and regulations and implementation of Best Management Practices (BMPs), potential hazardous impacts to the public would be less than significant.

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

Less Than Significant Impact: The proposed project would not 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. *Phase 1 Environmental Site Assessments* found in Appendix E, were conducted on the project site to assess the possible presence of Recognized Environmental Conditions (REC) on the property. RECs include property uses that may indicate the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

(1) due to any release to the environment; (2) under conditions indicative of a release to the environment; (3) under conditions that pose a material threat of a future release to the environment and (4) to determine if any significant surface or subsurface property contamination caused by hazardous and toxic substances should be considered during the construction and operation of the proposed project. The site assessment included a review of available federal and state data reported by Environmental Data Resources (EDR), available regulatory agency environmental records, and available site history and records.

HISTORIC USE OF PROPERTY

Historical sources reviewed, provided consistent information for the land use of the property. According to the aerial photos, the entire site was undeveloped and unused from at least 1928 through the present day.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Recognized Environmental Conditions are defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into the structures on the property or into the ground, ground water, or surface water of the property. A site reconnaissance was conducted to evaluate the potential for Recognized Environmental Conditions to occur on the project site. The site reconnaissance consisted of visual and/or physical observations of the property and improvements, adjoining properties as viewed from the property boundaries and the surrounding area based on visual observations from adjoining public thoroughfares. Table 4.9-1, *Summary of Recognized Environmental Conditions*, provides a summary of Recognized Environmental Conditions and are evaluated under one Phase 1 Environmental Site Assessment.

Table 4.9-1
Summary of Recognized Environmental Conditions

Hazard Issue	Project Site
Hazardous Materials	No hazardous materials or wastes were observed on the site.
Hazardous Wastes	Evidence of hazardous materials use, waste generation, or surface staining were not observed.
Solid Waste/Recyclables	No evidence of solid waste disposal or recyclable segregation was observed on the site.
Wastewater/Stormwater	No routine sources of industrial wastewater were observed at the site.
Drains, Sumps, Clarifiers	Neither storm drains nor clarifiers were observed on the site.
Underground Storage Tanks	No indirect evidence of current or previous USTs was observed during the site visit.
Aboveground Storage Tanks	No ASTs were observed during the site visit.
Wells	No evidence of water wells, injection wells, groundwater monitoring, or oil and gas wells was observed.
Stained Pavement, Corrosion, Soil, or Stressed Vegetation	No significantly stained soil or stressed vegetation was observed.
Pits, Ponds, Lagoons, Standing Water	No evidence of pits, ponds, or lagoons was observed.
Odors	No strong, pungent or noxious odors were detected.
PCBs	The site is undeveloped, PCBs are not expected to be located on the site property.
Radon	Low concern at the site.

Table 4.9-1
Summary of Recognized Environmental Conditions

Hazard Issue	Project Site
Lead-Based Paint/Asbestos	Since there are no permanent structures currently on the site, lead-based paint and ACMs are not likely to be present on the site.
Electromagnetic Fields	No high voltage electrical transmission lines and associated poles were observed adjacent to the site.
Vapor Encroachment Screen	The Vapor Encroachment Screen performed for the site did not reveal potential significant sources for hazardous vapor migration onto the site property from offsite sources.

AGENCY REVIEWS

The following agencies were contacted regarding records:

- City of Palmdale, Building Department: No historical permits were reported.
- Los Angeles County Assessor's Office: Bruin reviewed computer records and no improvements have been made to the entire project site.
- Los Angeles County Department of Environmental Health: Bruin reviewed records and found no records related to underground storage tanks or other issues.
- Los Angeles County Fire Department: Bruin reviewed records and found no records related to underground storage tanks or other issues for all lots.
- Regional Water Quality Control Board: Bruin reviewed records and found no records within their files for all lots.

STATE WATER RESOURCES CONTROL BOARD GEOTRACKER

The online database GeoTracker was reviewed by Bruin Geotechnical Services Inc. which provides records on Leaking Underground Storage Tanks (LUSTs) and Spills, Leaks, Investigation and Cleanup (SLIC) sites, which is maintained by the State Water Resources Control Board (SWRCB, 2020). The data provided in Table 4.9-2, *State Environmental Records*, shows the absence of listed hazardous generating facilities with violations, or active LUST site facilities, and based on local area geology, it is unlikely that a significant environmental impact to the proposed project from nearby facilities has occurred.

Based on the information collected during the *Phase I Environmental Site Assessment* (Appendix E), no additional environmental site investigations are warranted for potential RECs or de minimis conditions. Potential impacts would be less than significant.

Table 4.9-2
State Environmental Records

Record Source	Within the Project Site	Nearby/Adjoining Properties to the Project Site
Hazardous Waste	0	2
Hazardous Waste Generators	0	0
Equivalent NPL	0	0
Equivalent CERCLIS	0	0
Landfill/Solid Waste Disposal	0	0
Leaking Underground Storage Tanks (LUST) Closed Cases	0	9
Spills, Leaks, Investigations, and Cleanups (SLIC)	0	0
Registered Underground Storage Tank	0	0
Voluntary Cleanup	0	0
Brownfield	0	0
WIP	0	0
Source: Bruin Geotechnical Services Inc., *Phase 1 Environmental Site Assessments*; various dates.		

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

Less Than Significant Impact: Implementation of the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. The nearest public school to the project area would be Rex Parris High School, located at 38801 Clock Tower Plaza Drive, approximately 2.3 miles away from the project site. The operation of the proposed project would not emit any hazardous emissions. The operation of the proposed project could involve the use of cleaning products and occasional use of pesticide activities and herbicides for landscape maintenance. The materials would be common for general maintenance and would not be stored in large quantities that pose a health hazard to the public. Construction operations and construction equipment staging areas would be confined to the project site and would be required to comply with federal and state laws regarding the handling of hazardous materials. There would be no offsite handling of hazardous materials near the school sites that would pose health risks to the public. With compliance with federal and state laws regarding the handling of hazardous materials, potential hazardous emission impacts would be less than significant.

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

No Impact: The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment; refer to Figure 4.9-1, *GeoTracker 2,000 Feet Radius Search*. *Phase I Environmental Site Assessments* (Appendix E) prepared for the project site did not identify any Recognized Environmental Conditions. Additionally, review of federal, state, and local environmental databases, including the City of Palmdale, Los Angeles County, and the State

Regional Water Quality Control Board did not identify any listed hazardous sites on the project site or within vicinity of the project site. Therefore, the project would not be exposed to health hazards and no potential impact would occur regarding creating a significant hazard to the public or the environment.

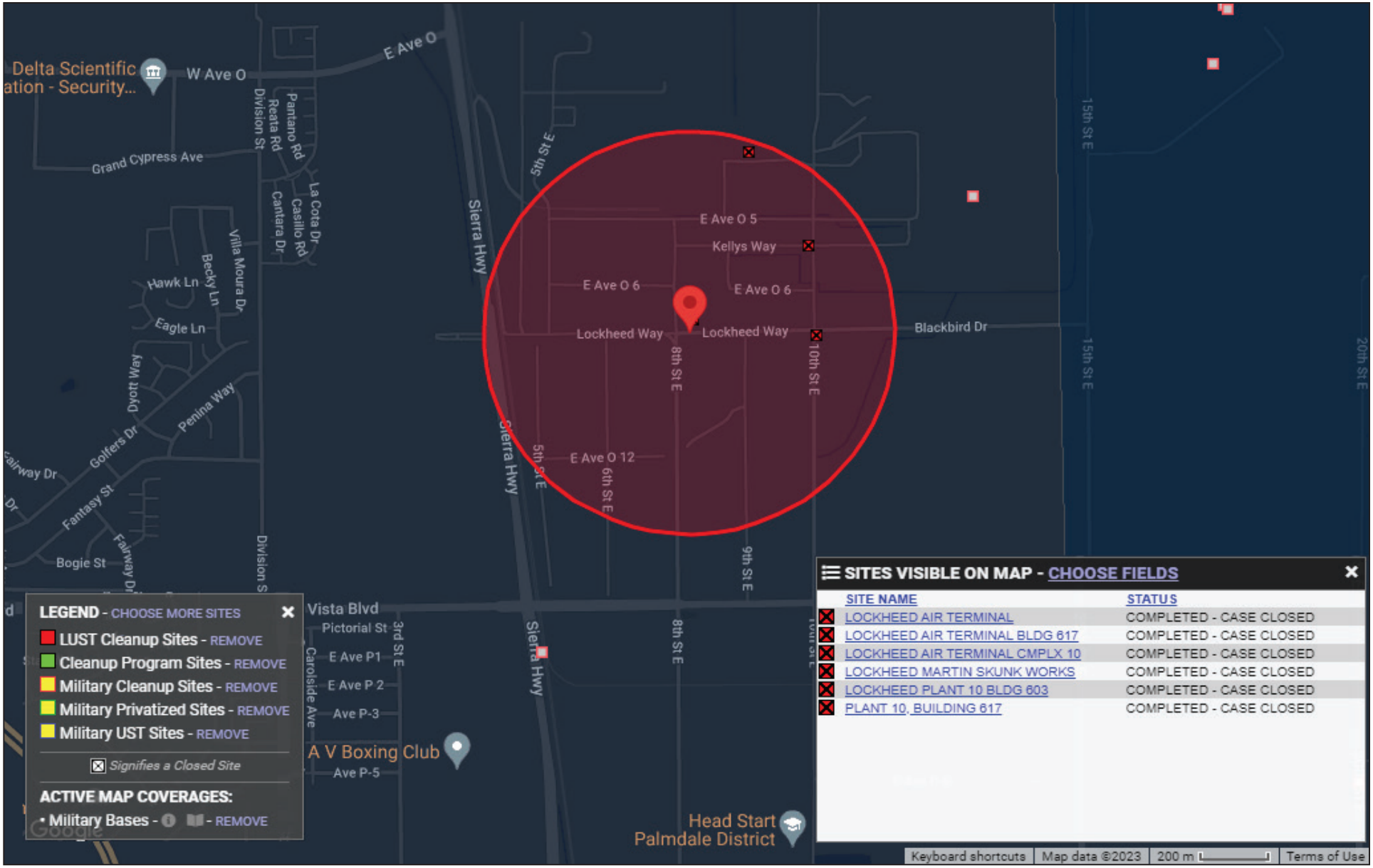
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact: The closest airport to the project site would be Palmdale Regional Airport, located at 41000 20th Street East, approximately 1.6 miles from the project area. Palmdale Regional Airport began civilian operations in 1971. During the 1990s, commercial airlines operated out of the airport. Presently, Palmdale Regional Airport has no scheduled commercial air service, there are no rental car facilities at the airport, and no private operators provide ground transportation services to the airport. Therefore, Palmdale Regional Airport would not pose a safety hazard or generate excessive noise for people residing or working within the project area.

The project site is approximately 0.70 miles from USAF Plant 42. Plant 42 is used primarily as a production flight test installation by the USAF. Plant 42 provides industrial facilities for production, engineering, final assembly, modification, depot maintenance and flight testing of aerospace systems. Plant 42 covers approximately 6,130 acres and is bounded by Columbia Way/East Avenue M to the north, East Rancho Vista Boulevard (Avenue P) to the south, State Route-14 to the west, and 40th/50th Street East to the east.

The City's General Plan Military Compatibility Element identifies a Military Influence Area around Plant 42. The Military Influence Area covers areas where military operations may impact the local community and where the local community may impact military functions. The Military Influence Area includes not only the military operations area, but also three safety zones extending from both ends of aircraft runways—the Clear Zone (CZ) and two Accident Potential Zones (APZs).

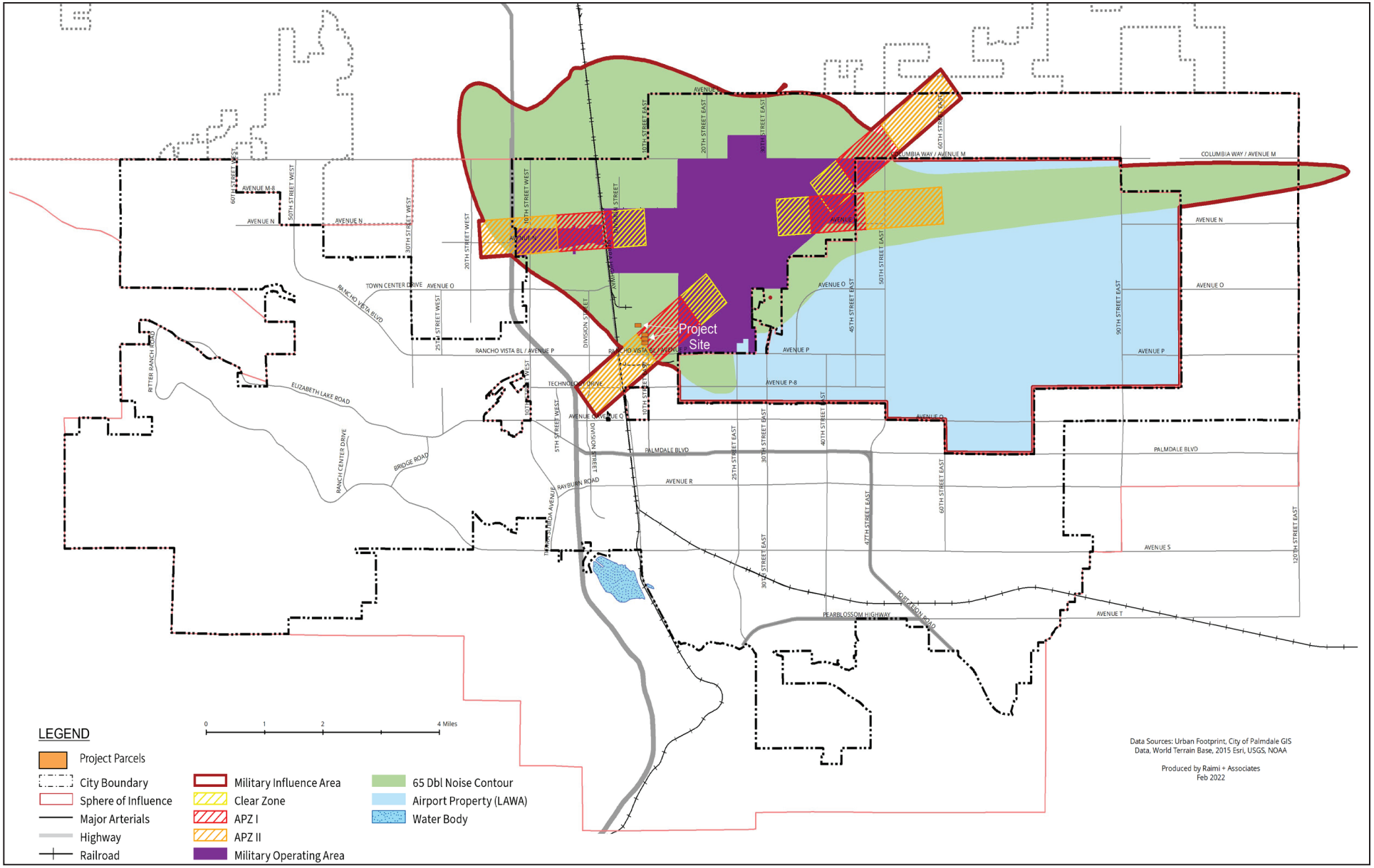
As shown in Figure 4.9-2, *Military Influence Area*, the project is not located in Accident Potential Zone I (APZ I) but is within the 65 to 69 dB Aircraft Noise Contour Area. Additionally, the Heavy Industrial uses are permitted within the 65-69 Aircraft Noise Contour Zone. Therefore, the implementation of the proposed project would not result in a public safety hazard or excessive noise impacts from Plant 42. Potential impacts would be less than significant.



Source: State of California, State Water Resources Control Board GeoTracker; March 6, 2023.

GeoTracker 2,000 Feet Radius Search

Figure 4.9-1



Source: Palmdale General Plan 2045, Chapter 8: Military Compatibility; July 2022.

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Military Influence Area

Figure 4.9-2

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

Less Than Significant Impact: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Palmdale Emergency Operations Plan was developed in 2012 to serve as a guiding document for the emergency/disaster response in the City and is currently being updated with the goal of City adoption by December 2022. The Plan assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency.

The City of Palmdale Emergency Operations Plan (EOP) was written in compliance with California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) guidelines, recommendations, and requirements. SEMS is required under Government Code Section 8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in the state. SEMS was established to standardize key elements of the emergency management system, so that mobilization, deployment, utilization, tracking, and demobilization of mutual aid resources are implemented effectively.

Under SEMS, the operational area is defined in the Emergency Services Act as an intermediate level of the state's emergency services organization consisting of a county and all political subdivisions within the county area. Political subdivisions include cities, counties, districts or other local governmental agency, or public agencies, as authorized by law. The operational area is responsible for coordinating information, resources, and priorities among local governments within the operational area, coordinating information, resources and priorities between the regional level and the local government level, and using multi-agency or inter-agency coordination to facilitate decisions for overall operational area level emergency response activities.

In the event of an emergency, Los Angeles County would serve as the Operational Area. When the Los Angeles County Operational Area EOC is activated, the Sheriff of Los Angeles County, designated by County Ordinance, is the Operational Area Coordinator and has the overall responsibility for coordinating and supporting emergency/disaster operations within the county. The Operational Area is the focal point for information sharing and support requests by cities within the county. These resources would be utilized by the City in an emergency event and would ensure that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Temporary activities associated with construction of the project could result in temporary partial lane closures along project area roadways. However, the temporary lane closures would be for a short period of time and would be implemented in accordance with recommendations provided in the California Temporary Traffic Control Handbook to ensure emergency access would be maintained at all times. The project would also be required to coordinate with the City of Palmdale on the need for traffic control measures during construction. Such measures could include preparation and implementation of detour and access plans and use of flag persons to ensure the safe movement of vehicles and pedestrians during the construction period. Plans are also required to be reviewed and approved by the Los Angeles County Fire Department for entitlement and prior to building permit issuance. With compliance with the City of Palmdale Traffic Control requirements and the Los Angeles

County Fire Department, potential emergency access impacts during construction would be less than significant.

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

No Impact: Implementation of the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The City of Palmdale Fire Hazard Zone Map shows that the project area has a less than Moderate Fire Hazard Area. The closest Moderate and High Fire Hazard Areas are approximately 3.5 miles south from the project site. Therefore, the proposed project would not be subject to significant risks of loss of life, injury or death involving wildland fires.

MITIGATION MEASURES

No mitigation measures are required.

4.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or offsite?	☐	☒	☐	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on the Preliminary Hydrology Study and the Low Impact Development Plan (Water Quality Management Plan) prepared by Red Brick Solution, LLC in June and December 2023. The *Preliminary Hydrology Study* is presented in Appendix F1, and the *Low Impact Development Plan* is presented in Appendix F2.

Existing Setting

The Planning Area is located on part of the Antelope Valley Watershed, which is a part of the Antelope Valley Groundwater Basin. The Antelope Valley Watershed encompasses approximately 1,220 square miles in Los Angeles County and is a "closed basin" system, meaning it has no outlets to the Pacific Ocean nor any other river system. The closest water body or basin to the project area would include Armargosa Creek.

The creek drains northerly through Palmdale and Lancaster. The creek eventually ends at Rosamond Dry Lake. Downstream receiving water basins to the project area include Amargosa Basin and Anaverde Basin.

The City of Palmdale and the project study area are under the regulatory jurisdiction of the Lahontan Regional Water Quality Control Board (RWQCB Region 6) Basin Plan. The Basin Plan designates beneficial uses for surface waters and groundwater basins in the watershed that are required to be protected. The beneficial uses include quantitative and narrative criteria for a range of water quality constituents that are applicable to certain receiving water bodies in order to protect the beneficial uses.

The Basin Plan identifies beneficial uses for minor surface water and groundwater basins for the Antelope Valley and water quality objectives for the project site downstream receiving water bodies. The beneficial uses in the Basin Plan are described in Table 4.10-1, *Lahontan Basin Beneficial Uses*.

Table 4.10-1
Lahontan Basin Beneficial Uses

Beneficial Use	Antelope Valley Hydraulic Unit Minor Surface Waters	Antelope Valley Ground Water Basin
Groundwater: Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.	X	NL
Municipal: Municipal and Domestic Supply waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to, drinking water supply.	X	X
Agriculture: Agricultural Supply waters are used for farming, horticulture or ranching. These uses may include, but are not limited to, irrigation, stock watering, and support of vegetation for range grazing.	X	X
Recreation 1: Water Contact Recreation waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.	X	NL
Recreation 2: Non-Contact Water Recreation waters are used for recreational activities involving proximity to water, but not normally body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing and aesthetic enjoyment in-conjunction with the above activities.	X	NL
Cold: Freshwater habitat waters support cold water ecosystems.	X	NL
Fresh: Beneficial uses of waters used for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).	x	X

Table 4.10-1
Lahontan Basin Beneficial Uses

Beneficial Use	Antelope Valley Hydraulic Unit Minor Surface Waters	Antelope Valley Ground Water Basin
Industrial: Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well depressurization.	NL	X
Wild Waters: Wildlife Habitat waters support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.	X	NL
Commercial: Commercial and sport fishing waters are used for commercial or recreational collection of fish or other organisms.	X	NL
Abbreviations: X= Existing, NL=Not Listed		

SECTION 303(D) WATER BODIES

Under Section 303(d) of the Clean Water Act, the California State Water Resources Control Board (SWRCB) is required to develop a list of impaired water bodies. Each of the individual Regional Water Quality Control Boards (RWQCBs) are responsible for establishing priority rankings and developing action plans, referred to as total maximum daily loads (TMDLs) to improve water quality of water bodies included in the 303(d) list. According to the Lahontan Basin Plan, there are no 303(d) Listed Impaired Waters in the project area or water bodies that have current TMDL action plans.

SIGNIFICANT ECOLOGICAL AREAS

The Lahontan Regional Water Quality Control Board Basin Plan defines Significant Ecological Areas as those areas that include, but are not limited to:

- All Clean Water Act (CWA) Section 303(d) impaired waters (see below).
- Areas designated as Areas of Special Biological Significance by the SWRCB in the Water Quality Control Plan for the Lahontan Region (aka the Basin Plan).
- State Water Quality Protected Areas.
- Water bodies designated with the RARE Beneficial Use category by the SWRCB in the Basin Plan (RARE).

According to the Lahontan Basin Plan, there are no significant Ecological Areas within the vicinity of the project area.

STORMWATER MANAGEMENT

Section 402 of the Clean Water Act established the National Pollution Discharge Elimination System (NPDES) to control water pollution by regulating point sources that discharge pollutants into Waters of the United States. In the State of California, the EPA has authorized the State Water Resources

Control Board (SWRCB) to be the permitting authority to implement the NPDES program. The SWRCB issues two baseline general permits, one for industrial discharges and one for construction activities (General Construction Permit). Additionally, the NPDES Program includes the long-term regulation of storm water discharges from medium and large cities through the MS4 Permit Program.

Short-Term Storm Water Management

Storm water discharges from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or be covered by a General Construction Permit. Coverage under the General Construction Permit requires filing a Notice of Intent with the State Water Resources Control Board (SWRCB) and preparation of a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Permit must ensure that a SWPPP will be prepared prior to grading and implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction. BMPs include programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution.

Long-Term Storm Water Management

The stormwater management regulatory requirements for the site include water quality requirements per the Colorado River Basin Plan and the City of Palmdale Stormwater Management Plan. In accordance with the City's Stormwater Management Plan, each development is required to prepare a Water Quality Management Plan that attenuates post-developed flows to 85 percent of pre-developed flows with the objective of protecting downstream properties. The purpose of the Stormwater Management Plan is to develop and implement a program to reduce pollutants in post construction runoff from new developments and redevelopment projects that result in land disturbance that is equal to or greater than one acre.

PROJECT IMPACTS

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

Less Than Significant Impact: The following analysis evaluates if the proposed project would conflict with beneficial uses or further impair any listed 303(d) Impaired Water Bodies established in the Regional Water Quality Control Board Basin Plan.

BENEFICIAL USES

The construction and operational activities associated with the implementation of the proposed project would have the potential to generate water quality pollutants. Expected pollutants of concern could include bacteria, viruses, nutrients, pesticides, sediments, trash and debris, oil, and grease. During construction, there would be the potential that degraded surface water runoff generated from the construction site could be conveyed into local drainage facilities. Depending on the constituents in the surface water, the water quality of project area surface water bodies could be reduced, which could conflict with beneficial uses established for the project area surface water bodies. The proposed project would disturb more than one acre of area and would; therefore, be required to obtain a NPDES State General Construction Permit from the State Water Resources Control Board. In accordance with the State General Construction Permit, the project applicant would be required to file a Notice of Intent

(NOI) to the Storm Water Report Tracking System and obtain a waste discharger identification number from the State Water Resources Control Board. Additionally, the General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would be approved by the City of Palmdale and would identify Best Management Practices (BMPs) to minimize degraded surface water runoff impacts. Such measures would include a site map that shows the construction site perimeter, existing and proposed buildings, parking areas, roadways, storm drain collection and discharge points before and after construction. Additionally, structural BMPs placement of such sandbags or waddles near drainages, use of rumble racks or wheel washers or other measures would be implemented to avoid sediment transport. Compliance with the NPDES short-term regulatory requirements would reduce short-term construction related impacts to water quality to a less than significant level.

The long-term operation of the proposed project would generate surface water runoff that could contain pollutants that could conflict with project area surface water beneficial uses. The proposed project would be regulated under NPDES MS4 Municipal Stormwater Permits issued by the Lahontan Regional Water Quality Control Board. The proposed project has prepared Low Impact Water Quality Management Plans that will infiltrate long-term operation stormwater runoff to the required 85 percent of pre-developed flow condition. Surface water flows will be conveyed to a series of catch basins that will collect and pre-treat stormwater flows by bio-filtration filters in each catch basin before entering into local and regional storm drain systems.

Additionally, non-structural, and structural BMP's, would be implemented to maintain water quality. Non-structural BMP's could include the education of residents, common area landscape management, litter control, catch basin inspection, and street and parking lot sweeping. The structural BMPs could include storm drain system stenciling, design outdoor hazardous material storage areas to reduce pollutant introduction, and design trash enclosures to reduce pollutant introduction. Implementation of the project WQMP non-structural and structural BMPs and treatment control measures would reduce long-term operation impacts to water quality to a less than significant level.

SECTION 303(d) IMPAIRED WATER BODIES

According to the Lahontan Basin Plan, there are no 303(d) Listed Impaired Water Bodies in the project area or water bodies that have current TMDL Action Plans.

SIGNIFICANT ECOLOGICAL AREAS

According to the Lahontan Basin Plan, there are no significant Ecological Areas within the vicinity of the project area.

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

No Impact: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The project site overlies the Antelope Groundwater Basin. Borings taken in show that groundwater was not encountered to the maximum explored depth of approximately 30 feet below existing grade. Groundwater levels recorded in the area by the California Department of Water Resources show water depths greater than 200 feet below ground surface. The proposed

project would not involve any activities that would directly extract groundwater. Grading and excavation activities for the project would not encounter groundwater and require dewatering. Additionally, long-term surface water generated from the project would be infiltrated into the ground, which would assist in the recharge of the groundwater basin.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or offsite?

Less Than Significant Impact With Mitigation Incorporated: The project would not result in substantial erosion or siltation onsite or offsite. During earthwork activities, there would be the potential that uncovered soils on the project site could be exposed to water erosion and/or wind erosion impacts. Additionally, there would be the potential that construction vehicles and construction equipment could transport sediment onto local streets and into local drainage systems. The proposed project would disturb more than one acre of area and would be required to obtain a General Construction Permit from the State Water Resources Control Board. The General Construction Permit would require preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to avoid erosion and sediment transfer impacts. Compliance with the NPDES Permit requirements including preparation of a SWPPP would reduce the potential for erosion and sediment transport discharged from the project site. With implementation of Mitigation Measure HWQ-1, potential impacts related to substantial soil erosion, or the loss of topsoil would be less than significant.

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

Less Than Significant Impact: The project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite. The project site currently does not have onsite stormwater management facilities. The construction of the proposed project would result in an increase in the amount of impervious areas over the current condition, which would increase the rate of surface water generated from the site. Surface water flows would be conveyed to a series of catch basins prior that will collect and pre-treat stormwater flows by bio-filtration filters in each catch basin before entering into local and regional storm drain systems. According to the Hydrology Studies prepared for the proposed project, the proposed drainage system would be able to accommodate increased surface water flows generated from the project site. With implementation of the project Stormwater Management Plan, 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, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite. Potential impacts would be less than significant.

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

Less Than Significant Impact: Implementation of the proposed project would not exceed the capacity of planned stormwater drainage facilities or provide substantial additional sources of polluted runoff. The *Low Impact Water Quality Management Plan* (Appendix F2) prepared for the project would infiltrate long-term operation stormwater runoff to the required 85 percent of pre-developed flows. Surface water flows would be conveyed to a series of catch basins prior that will collect and pre-treat stormwater flows by bio-filtration filters in each catch basin before entering into local and regional storm drain systems. Additionally, non-structural, and structural BMP's would also be implemented to maintain water quality. With compliance with the project Light Impact Water Quality Management Plan, potential water quality impacts would be less than significant.

iv) Impede or redirect flood flows?

Less Than Significant Impact: The proposed project would not impede or redirect flood flows. As shown in Figure 4.10-1, *National Flood Hazard Map*, the project area is within Flood Insurance Rate Map (FIRM) No. 06037CO7OOF. According to the FIRM, the Specific Plan Area is located within Zone X, which is an area with 0.2 percent in the 100-year flood hazard. The potential impact for the project to impede or redirect flood flows would be less than significant.

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

Less Than Significant Impact: According to the City's General Plan, the project area is not located near the coastline. Therefore, the project would not be at risk for a tsunami that could potentially release pollutants. Additionally, the project area is not designated a Tsunami Inundation Area according to the California Department of Conservation's Tsunami Inundation Maps (CDOC 2021).

Lake Palmdale is located approximately 3.2 miles from the project area. A seismic event could cause a seiche to occur at Lake Palmdale, which could potentially overtop the dam. However, the design report for the dam considers a reflection of the wave on return unlikely. Also, given the distance to the project area it is anticipated that the wave volume above the dam would not be substantial and would not result in damaging floods to the project area. Potential flood hazards and associated water quality impacts from tsunami, or dam inundation would be less than significant.

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

Less Than Significant Impact: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. In September 2014, the state passed legislation requiring California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act (SGMA, Water Code Section 10720 et seq.) gives local agencies the power to sustainably manage groundwater. It required DWR to establish priority levels for groundwater basins within the state based on their level of overdraft and required Groundwater Sustainability Agencies (GSAs) to form and develop

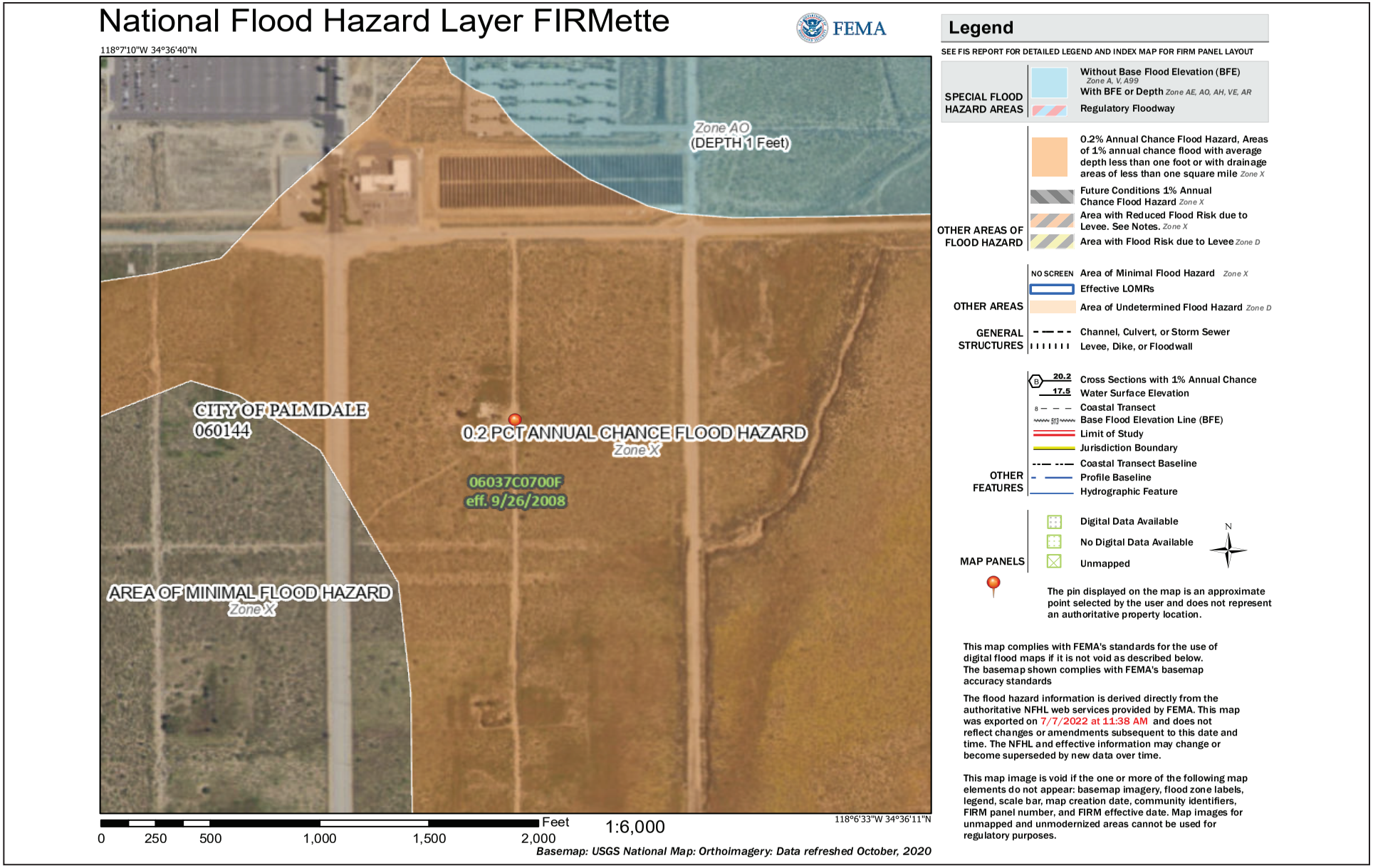
Groundwater Sustainability Plans (GSPs) for medium- and high-priority groundwater basins that would bring the basins into sustainability by 2040 or 2042. Basins determined to be in critical overdraft were required to develop GSPs first. DWR is behind in the process of determining its approval of submitted GSPs for non-critical basins and was required to issue final notices of approval or disapproval by January 31, 2022.

The project area overlies the Antelope Valley Groundwater Basin which encompasses 1,580 square miles of Los Angeles County, Kern County, and, less prominently, San Bernardino County, and has a storage capacity of approximately 70,000,000-acre feet (DWR 2004). Within the City of Palmdale Antelope Groundwater Basin is an adjudicated basin, managed by the Palmdale Water District (PWD) and the Los Angeles County Waterworks District No. 40 (LACWD 40). The adjudication allows groundwater banking between entities and also allows PWD and LACWD 40 to take any additional groundwater banked. As an adjudicated basin, the Antelope Valley Basin is exempt from the requirements of SGMA and the PWD and LACWD 40 have not adopted a groundwater management plan. No regional Groundwater Management Plan currently exists for the Basin. Therefore, the proposed project would not interfere with a sustainable groundwater management plan.

Water quality in the project area is governed by the Lahontan Regional Water Quality Control Board (LRWQCB), which sets water quality standards in the Water Quality Control Plan for the Lahontan Region (Basin Plan). The Basin Plan identifies beneficial uses for surface water and groundwater and establishes water quality objectives to attain those beneficial uses, together known as water quality standards. The Plan would not interfere with the beneficial uses of local surface water. The proposed project would not violate water quality standards or degrade surface water quality. Therefore, the proposed project would be consistent with the LRWQCB Basin Plan.

MITIGATION MEASURES

HWQ-1: Prior to the issuance of a grading permit, the project will demonstrate that it has obtained coverage under a General Construction Permit issued from the State Water Resources Control Board, filed a Notice of Intent with the State Water Resources Control Board and prepared a Storm Water Pollution Prevention Plan (SWPPP).



Source: Federal Emergency Management Agency (FEMA); July 7, 2022.

National Flood Hazard Map

Figure 4.10-1

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4.11 Land Use and Planning

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

PROJECT IMPACTS AND MITIGATION MEASURES

a) Physically divide an established community?

Less Than Significant Impact: The proposed project would not physically divide an established community. Currently, the project site is vacant, undeveloped, unpaved, unfenced, and unimproved. The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. Additionally, The City General Plan Land Use Map designates the project site as IND (Industrial). The industrial designation is intended to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. Zoning designation for the proposed project site is HI (Heavy Industrial).

The nearest sensitive receptors are the existing residential land uses located approximately 990 feet southeast of the southernmost border of the project site. Implementation of the proposed project would not introduce any physical barriers between the site and the existing residential communities or restrict access to existing residential communities. Additionally, the project would not redirect traffic through existing residential neighborhoods or result in land uses that would be incompatible with surrounding land uses. Potential land use impacts associated with physically dividing an established community would be less than significant.

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?

No Impact: Implementation of the proposed project would not 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. The relevant planning programs for the project would be the City General Plan and Palmdale Municipal Code.

CITY OF PALMDALE GENERAL PLAN

The City's General Plan provides long-term goals, principles, and policies for achieving the City's Vision. The General Plan provides a blueprint and guides future growth and development in the City. The City's General Plan Land Use Map designates the project site as IND. The Industrial designation is intended

to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. Under the Industrial designation, the maximum Floor Area Ratio (FAR) is 0.5.

The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land, identified by Assessor's Parcel Number APN 3022-026-003 (Lot 3). The proposed project land uses and FAR would be consistent with the City's General Plan land use designation for the project area.

General Plan Policy Consistency Analysis

The General Plan consists of twelve elements including Land Use and Community Design; Circulation and Mobility; Economic Development; Military Compatibility; Equitable and Healthy Communities; Parks, Recreation, and Open Space; Conservation; Public Facilities, Services, Infrastructure; Safety; Sustainability, Climate Action, Resilience; Air Quality; and Noise. Table 4.11-1, *General Plan Consistency Analysis*, identifies relevant policies from the General Plan and evaluates the consistency of the proposed project with those policies. Policies addressing design and character are addressed in Section 4.1, *Aesthetics*.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
Land Use and Community Design Element	
Goal LUD-3: A City with high-quality services and facilities in all neighborhoods.	
LUD-3.5: Infrastructure Capacity and Service. Ensure that there will be adequate water and wastewater system capacity to meet projected demand by continuing to oversee the development of adequate and dependable public services and facilities to support both existing and future development.	**Consistent:** The Los Angeles County Waterworks Districts (LACWD) Urban Water Management Plan (UWMP) identified that the project would have sufficient supplies to meet demands from 2025 to 2045 under normal year, single dry year, and multiple-dry year conditions. The proposed project would be consistent with the existing General Plan Land Use and Community Design Element. As a result, the water demands for the proposed project are accounted for in the most recent UWMP water demand assumptions and potential impacts would be less than significant. The wastewater demand for the proposed project would represent 0.029 percent of the planned industrial growth in the City and 0.009 percent of the projected wastewater demand. Palmdale Water Reclamation Plant currently has about four mgd of current available capacity. The proposed square footage of the proposed project and associated wastewater demands are accounted for in the growth projections and the Palmdale Water Reclamation Plant available treatment capacity.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
LUD-3.6: Infrastructure Funding and Programs. Continue to implement comprehensive water and wastewater management programs and ensure that future developments pay their fair share for any infrastructure improvements demand necessary.	**Consistent:** Implementation of the proposed project would require adding onsite utilities since the project site is currently undeveloped, including both wet utilities (water, wastewater) and dry utilities electrical, gas, communication) and storm drain facilities. The utility systems would connect into existing utilities and would not require substantial offsite construction activities. The proposed project would be required to pay industrial wastewater surcharge fees which would be used for the maintenance and expansion of existing treatment facilities.
Goal LUD-5: All new major development in the city is designed to support high quality neighborhoods.	
LUD-5.3: Public Services in New Neighborhoods. Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.	**Consistent:** Section 4.15, *Public Services,* identifies that the project would not result in significant impacts to Los Angeles County Fire Department services. As part of the City's review for the project, the Los Angeles County Fire Department and the Sheriff's Department would review and ensure appropriate modifications and fire safe designs incorporated into the project. The project would incrementally increase the need for law enforcement protection services. The project would be consistent with the City's General Plan and would not result in substantial unplanned growth that would require additional police protection services beyond identified in the General Plan. The proposed project would be reviewed by the Sheriff's Department to ensure it would comply with the required Sheriff's Department codes and standards. Additionally, the project would be required to provide Public Facility Development Impact Fees within PMC Chapter 3.45 to maintain and fund future public service facilities.
LUD-5.7: Natural Topography. To the greatest extent feasible, preserve natural topographic features during the planning and development process. Utilize physical advantages of the site to minimize visual impacts.	**Consistent:** The site is currently vacant and undeveloped. The site is situated approximately 2,590 feet above mean sea level in an area of low relief. The site has no unique topographic features. Implementation of the proposed project would not degrade the existing visual character of natural features.
Goal LUD-7: Neighborhoods and streets that are safe and welcoming.	
LUD-7.4: Lighting Improvements. Improve lighting and nighttime security across all City neighborhoods to prevent crime and increase safety.	**Consistent:** The proposed project would install lighting throughout the entire project that would provide lighting to increase nighttime security. The operation of the proposed project would be required to comply with lighting requirements provided in PMC Section 17.86.030. Compliance with standards of

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
	development of PMC Section 17.86.030, the project would ensure that all exterior lighting would be confined to the property and spillover lighting impacts to adjoining properties would be avoided.
Goal LUD-17: Facilitation of industrial areas that support and buffer Plant 42 while maintaining compatibility with adjacent non-industrial uses.	
LUD-17.1: Retention of Businesses. Minimize land use compatibility conflicts that discourage attraction and retention of production, distribution, and service and repair businesses in areas zoned for industrial use.	**Consistent:** The City's General Plan Land Use Map designates the property as IND (Industrial). The General Plan Land Use designation is intended to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. The City of Palmdale Zoning Map zones the project site as HI (Heavy Industrial). The HI Zone was established to create, preserve, and enhance areas for HI uses and associated operations, including assembly, fabrication, packaging, and transport, where operations are conducted primarily indoors. The proposed project would not conflict with the City's General Plan Land Use Designation and Zoning Code.
LUD-17.2: Infrastructure Master Planning. Encourage master planning and infrastructure funding districts within industrial areas to ensure adequate and comprehensive provision of infrastructure and efficient, attractive designs through cohesive planning of larger development projects.	**Consistent:** The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The project includes a comprehensive project wide water, sewer, and drainage plan to serve the project and comprehensive landscape treatment to unify the project. The project would be evaluated for potential aesthetic impacts and would comply with applicable design site development and design standards to minimize potential aesthetic impacts. With compliance with applicable design site development and design standards, potential aesthetic impacts would be minimized.
Goal LUD-18: Attraction and stimulation of new employment uses through flexible land use regulations and supportive policies/actions.	
LUD-18.3: Residential Adjacencies. Buffer heavy industrial uses and light industrial uses, such as general services, light manufacturing, and storage uses from residential neighborhoods.	**Consistent:** The project's southernmost boundary is located approximately 990 feet from the nearest residential sensitive receptors. The project is within the HI zone. The proposed project would be required to comply with the City's HI zone Development Standards for screening of outdoor storage, locations of loading and refuse disposal areas which would minimize aesthetic impacts.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
Circulation and Mobility Element	
TM-2.8: Growth management. Ensure that the cumulative and regional impacts of new developments on the circulation system are mitigated to the extent feasible, concurrent with development.	**Consistent:** The project proposes right-of-way dedications and roadway improvements to implement the City's Circulation Plan. The Traffic Impact Study Report (Appendix I, *Level of Service Deficiency and Vehicle Miles Traveled Analysis*) prepared for the project contains project and cumulative impact level of service analysis and with the proposed roadway segment improvements, all roadway segments and intersections would operate at an acceptable level of service.
TM-6.5: Landscaping. Incorporate appropriate landscaping elements as part of roadway projects.	**Consistent:** The project proposes right-of-way dedications which includes areas for landscaped parkways.
TM-8.3: Right-of-way. Ensure that right-of-way is reserved wherever possible to implement the mobility network illustrated in Figure 6.2.	**Consistent:** The project proposes right-of-way dedications and roadway improvements to implement the City's Circulation Plan.
Military Compatibility Element	
Goal MC-1: Compatible adjacent land uses that support continued operation of Plant 42.	
MC-1.1: Aerospace compatible land uses. Maintain appropriate land use designations surrounding Plant 42 to limit incompatible uses and to ensure continued safe operation of airport activities.	**Consistent:** The project proposes the development of industrial uses which would be compatible and would not conflict with operations at Plant 42.
MC-1.3: Non-industrial land uses. Limit non-industrial uses from locating in the Aerospace Industrial area (aside from uses that directly support Plant 42 or airport operations).	**Consistent:** The project does not propose non-industrial land uses.
Goal MC-2: Mitigate and/or avoid encroachment of incompatible development into space utilized by Plant 42 air operations.	
MC-2.2: AICUZ consistency. Require all development to be consistent with DoD regulations as outlined in the Plant 42 AICUZ Report and comply with regulations which affect development in the Clear Zones/Accident Potential Zones.	**Consistent:** The project area is located within the 65 to 69 dB Aircraft Noise Contour Area. Additionally, light industrial use is permitted within the 65-69 Aircraft Noise Contour Zone. Therefore, the implementation of the proposed project would not result in a public safety hazard or excessive noise impacts from Plant 42.
Conservation Element	
Goal CON-1: Protect Significant Ecological Areas in and around the City, including, but not limited to, sensitive flora and fauna habitat areas.	
CON-1.1: Endangered species protection. Ensure local compliance with the California Endangered Species Act and the Federal Endangered Species Act (ESA).	**Consistent:** A *Biological Technical Report* (Appendix B) was prepared that identified the project site has a low potential for sensitive wildlife species to occur onsite. One species, the San Diego black-tailed jackrabbit, was observed and three special status species were considered to have at least a moderate potential to occur. Mitigation measures were identified to reduce

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
	impacts to sensitive wildlife species to less than significant. Additionally, the project site has a low potential for sensitive plant species to occur onsite, with the exception of the western Joshua tree. Mitigation measures have been identified and would ensure the continued existence of the western Joshua tree is not jeopardized to drop below self-sustaining levels.
Goal CON-2: Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.	
CON-2.1: Hillside land management. Establish a systematic approach to the management of land uses and development in hillside areas.	**Consistent:** The project area is not located on a designated hillside or ridgeline area.
Goal CON-5: Protect the quality and quantity of local water resources.	**Consistent:** The project has prepared a *Low Impact Water Quality Management Plan* (Appendix F2) in accordance with the City's Storm Water Management Plan which provides for the protection of local resources.
CON–6.2: Reduce landscaping irrigation needs. Require the use of water conserving native or drought resistant plants and drip irrigation systems where feasible.	**Consistent:** Landscaping would comply with the City's Water Efficient Landscape requirements.
CON-6.3: Reduce street runoff. Design streets to incorporate vegetation, soil, and engineered systems to slow, filter, and cleanse stormwater runoff	**Consistent:** Surface water flows from roadways will be conveyed to a series of catch basins prior that will collect and pre-treat stormwater flows by bio-filtration filters in each catch basin before entering into local and regional storm drain systems.
CON-6.4: New construction water conservation. Require water conserving appliances and plumbing fixtures in all new construction.	**Consistent:** The project would comply with the mandatory requirements of the California Building Standards Code, Title 24, Part 6 (Energy Code) and Part 11 (CALGreen), including, but not limited to: installing low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and reducing the amount of turf.
CON-8.4: Preservation in new development. Require that new development preserve significant historic, paleontological, or archaeological resources.	**Consistent**. A *Cultural Resource Report* (Appendix C) prepared for the project identified there were no recorded cultural resources on the project site. Mitigation measures have been identified to provide for the protection of unknown cultural resources.
CON-8.5: Tribal consultation. Conduct Native American consultation consistent with the applicable regulations when new development is proposed in potentially culturally sensitive areas.	**Consistent:** The project has complied with the requirements of Assembly Bill (AB) 52, which requires lead agencies to initiate consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
CON-8.6: Discovery coordination with Tribal groups. When human remains suspected to be of Native American origin are discovered, coordinate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate course of action.	**Consistent:** The project is subject to the requirements of Section 7050.5 of the *California Health and Safety Code* that provide for the disposition of accidentally discovered human remains.
CON-9.3: Locally appropriate landscape design. Preserve the natural heritage of the region through landscape design by ensuring the local stock of native trees and vegetation is replenished and protected.	**Consistent:** In accordance with the PMC Table 17.66.010-1, at least 10 percent of the project site shall be landscaped. Landscaping would be provided around the perimeter of each building area and within the parking areas. Landscaping would comply with the City's Water Efficient Landscape requirements. Compliance with the landscape requirements would be confirmed through the City's Site Plan Review process.
Public Facilities, Services, and Infrastructure Element	
PFSI 2.4: County Sheriff Coordination. Coordinate with the Los Angeles County Sheriff's Department to ensure that service availability, resources, and staffing are appropriate for the community need.	**Consistent:** As discussed in Section 4.15, *Public Services*, the project would not result in significant impacts to Los Angeles County Sheriff's Department services. As part of City review for the project, the Los Angeles County Sheriff's Department would review the project to ensure the project has adequate security and if public safety measures are needed.
PFSI 2.5: County Fire Coordination. Coordinate with the Los Angeles County Fire Department to ensure that service availability, resources, and staffing are appropriate for the community need.	**Consistent:** As discussed in Section 4.15, *Public Services*, identifies that the project would not result in significant impacts to Los Angeles County Fire Department services. As part of the City review for the project, the Los Angeles County Fire Department would review and ensure appropriate modifications and fire safe designs incorporated into the project.
Goal PSFI-3: Ensure that all development in Palmdale is served by adequate water distribution and sewage facilities.	**Consistent:** The project has been identified to have adequate water supplies and available treatment capacity to service the project.
PFSI 3.7: Public Sewer System Prioritization. Require that all commercial, industrial, institutional, and multiple-family uses be connected to a public sewer system with only limited use of private sewage disposal systems.	**Consistent:** The proposed project would be connected to a public sewer system.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
PFSI 3.11: New Development Fees. Require new development to pay necessary fees for expansion and ongoing maintenance of the sewage disposal system to the appropriate agencies, to handle the increased load, which it will generate.	**Consistent:** The proposed project would be required to pay necessary fees for expansion and ongoing maintenance of the sewage disposal system to the appropriate agencies.
PFSI 3.13: Low Impact Development. Require new development to minimize storm water runoff and pollutant exposure by incorporating low impact development (LID) measures and appropriate best management practices (BMPs) consistent with the National Pollution Discharge Elimination System (NPDES).	**Consistent:** The project has been designed with a low impact development water quality plan that is consistent with City requirements.
PFSI 3.14: Water and Wastewater Provision. Ensure the provisions of adequate water and wastewater services to all new development.	**Consistent:** The project has been identified to have adequate water supplies and available treatment capacity to service the project. The proposed project would be required to coordinate with the Los Angeles County Waterworks District (LACWD) and secure a Will Serve Letter which would ensure that LACWD would provide adequate water service to the proposed project.
PFSI 5.2: On-site Infrastructure. Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.	**Consistent:** The proposed project would be required to construct onsite infrastructure improvements pursuant to City standards.
PFSI 5.3: Off-Site Fair Share Contribution. Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements needed to support the project. This includes a fair share contribution toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.	**Consistent:** The proposed project included the dedication of area and construction of roadway improvements and would be subject to Development Impacts Fees to fund its fair share of the costs toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities.
PFSI 6.3: New Utility Development. When feasible, require new utility lines to be constructed underground and along existing utility corridors.	**Consistent:** Proposed utilities for the project would be placed underground.
Safety Element	
SE 1-1: Geologic Review. Review development within or adjacent to geologic hazard zones and provide copies of geotechnical reports and studies to be reviewed by a qualified geologist and implement recommendations to ensure adequate provisions for public safety.	**Consistent:** The *Geotechnical Investigation Report* (Appendix D1) prepared for the project identified that the project is geotechnically feasible with the recommended design measures and would not be significantly impacted from landslides, liquefaction, expansive soils, and mud and debris flow.

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
SE 1-2: California Building Code. Require appropriate structural setbacks from active fault rupture traces in accordance with Alquist- Priolo standards and continue to follow California Building Code.	**Consistent:** The project site is not located on an Alquist-Priolo Fault Zone.
Goal SE 2: Minimize public health, safety, and welfare impacts resulting from wildfire hazards.	**Consistent:** The project site is not within a wildfire hazard area.
SE 2-9: Development Requirements. Ensure that the requirements of the Los Angeles County Fire Department are incorporated into new development through the development review process.	**Consistent:** The proposed project would meet minimum fire-flow requirements identified under the California and Los Angeles County Fire Department Codes.
SE 2-10: Water system requirements: Require all new development to be served by a water system that meets applicable fire flow requirements.	**Consistent:** The proposed project would meet minimum fire-flow requirements identified under the California and Los Angeles County Fire Department Codes.
Goal SE-3: A Minimize risks associated with the transport, storage, use, and disposal of hazardous materials.	**Consistent:** The project would comply with all federal, state and local laws and regulations regarding the handling of hazardous materials.
SE 4-3: National Pollutant Discharge Elimination System and Low Impact Development. Ensure that new development meets National Pollutant Discharge Elimination System (NPDES) and associated Low Impact Development (LID) standards that limit peak runoff to pre-development rates.	**Consistent:** The project has been designed with a low impact development water quality plan that is consistent with City requirements.
SE 7-3: Review Development Consistency. Review all new development for consistency with applicable evacuation plans and ensure access to at least two evacuation routes.	**Consistent:** The project would provide local emergency access from Blackbird Drive/Lockheed Way, Blackbird Drive and Avenue 0-12 and regional emergency access from SR-14 and Sierra Highway.
SE 10-3: Maximize Safety and Security. Through the development review process, ensure that sites are designed in order to maximize safety and security, considering such factors as visibility, lighting, emergency access, legibility of street numbers, and fencing.	**Consistent:** As part of the City review for the project, the Los Angeles County Sheriff's Department would review the project to ensure the project has adequate security and if public safety measures are needed.
SE 10-4: Adequate Lighting. Require all commercial and industrial developments to provide adequate lighting for buildings and parking areas as well as sufficient visibility for patrol vehicles to assist in law enforcement surveillance.	**Consistent:** The proposed project would provide adequate lighting for buildings and parking areas as well as sufficient visibility for patrol vehicles to assist in law enforcement surveillance.
Sustainability, Climate Action, and Resilience Element	
SCR-3.1: Energy Efficient New Construction. Integrate CALGreen Tier 1 and Tier 2 green building and energy efficiency standards into new construction and major remodels.	**Consistent:** The proposed project would integrate CALGreen Tier 1 and Tier 2 green building energy efficiency standards. All projects within the Southern California Edison and Southern California Gas Company service areas would be required to comply with the Building Energy Efficiency Standards and

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
	CALGreen, which would contribute to minimizing wasteful energy consumption.
SCR-6.3: Low-Water Use Plant List. Implement the City's landscape plant list and use of low-water plants in new or renovated landscaped areas.	**Consistent:** Landscaping would comply with the City's Water Efficient Landscape requirements. Compliance with the landscape requirements would be confirmed through the City's Site Plan Review process.
Air Quality Element	
AQ 1-8: Environmentally Review New Development. Use the environmental review process for new development applications to assess and, as necessary, mitigate the impacts of new development related to increased vehicle miles traveled.	**Consistent:** The VMT analysis is presented in Section 4.17, *Transportation*, identifies that the proposed project will create a less than significant transportation impact on the environment.
AQ 2-2: Construction Site Requirements. Require measures at construction sites to prevent deposition of soil onto public right-of-way.	**Consistent:** The project would be required to obtain coverage under a General Construction Permit issued from the State Water Resources Control Board. The General Construction Permit would require the filing of a Notice of Intent with the State Water Resources Control Board and the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would provide a list of Best Management Practices to reduce impacts related to substantial soil erosion or the loss of topsoil.
AQ 2-4: Erosion and Dust Control Measures. Require erosion and dust control measures for new construction, including covering soil with straw mats or use of chemical soil and dust binders during site grading, followed by hydroseeding and watering disturbed construction areas as soon as possible after grading to prevent fugitive dust.	**Consistent:** The project would be required to obtain coverage under a General Construction Permit issued from the State Water Resources Control Board. Additionally, per the requirements of AVAQMD Rule 403, the applicant shall submit a Dust Control Plan (DCP) to AVAQMD for review and obtain approval prior to initiating any grading or grubbing construction activity.
AQ 3-7: Environmentally Review New Development Applications. Through the environmental review process for new development applications, ensure that emissions of toxic air contaminants are minimized and that any significant health effects associated with such contaminants are appropriately mitigated.	**Consistent:** The project's southernmost boundary is located approximately 990 feet from the nearest residential sensitive receptors, the closest onsite industrial activity would occur at approximately 1,200 feet away. As the project's industrial activity is not located within 1,000 feet of the nearest sensitive receptors, the project's operational impact would be less than significant.
Goal AQ-4: Reduce air pollution caused by energy consumption.	**Consistent:** The proposed project would comply with regulatory compliance measures outlined by the state and county related to air quality, greenhouse gas emissions (GHG), transportation/circulation, and water supply. Additionally, the proposed project would be constructed in accordance with all applicable City Building and Los Angeles County Fire Department Codes. To minimize energy consumption, Mitigation

Table 4.11-1
General Plan Consistency Analysis

Policy	Consistency Analysis
	Measure E-1 is recommended which includes installation of solar panels on each building.
Noise Element	
N-1.1: Future Noise Levels. Use the state-recommended noise level guidelines shown in Figure 16.1 to determine the compatibility of proposed land uses with the existing and future noise environment of each proposed development site.	**Consistent:** As discussed in Section 4.13, *Noise*, identifies the operation of the project would not exceed the City's daytime or nighttime noise standard and no additional sound attenuation measures would be required.
N-2.2: Restrict Construction Activities. Restrict construction activities in the vicinity of sensitive receptors during the evening, early morning, and weekends and holidays.	**Consistent:** As discussed in Section 4.13, *Noise*, identifies the operation of the project would not exceed the City's daytime or nighttime noise standard. Construction operations for the project would occur during the hours of the day permitted in the City Noise Ordinance. No sensitive receptors were reportedly located within a quarter of a mile radius of the project site.
Goal N-3: Promote noise compatible land uses within the 65 dBA CNEL contour and the Frequent Overflight Area of Air Force Plant 42.	**Consistent:** Portions of the project area are within the 65 to 69 dB Aircraft Noise Contour Area. According to Plant 42 Airport Land Use Compatibility Use Zones, Heavy Industrial land uses are permitted within the 65-69 Aircraft Noise Contour Zone.

RELEVANT PLANNING PROGRAM CONSISTENCY

The relevant planning programs for the project are the City's General Plan and Development Code. The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land and would be consistent with Zoning Code planned land uses and site development standards for the project site. Additionally, the project is consistent with the goals and policies of the General Plan that apply to the project. Therefore, the proposed project would not 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.

MITIGATION MEASURES

No mitigation measures are required.

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4.12 Mineral Resources

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

No Impact: The 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. The California Surface Mining and Reclamation Act (SMARA) of 1975 required the classification of land into Mineral Resource Zones (MRZs), according to the land's known or inferred mineral resource potential. The process was based solely on geology, without regard to existing land use or land ownership. The primary goal of classification is to ensure that the mineral potential of land is recognized by local government decision-makers and considered before they make land use decisions that could preclude mining. According to the City's General Plan Conservation Element, the City lies within the Palmdale Production Consumption region which is a California Department of Conservation Mineral Resource Zone. The mineral deposits within Palmdale are the Little Rock Fan and the Big Rock Creek Fan alluvial deposits. Active quarries exist in the following locations:

- Along 75th Street East, between East Avenue S and East Palmdale Boulevard.
- The area bordered by East Avenue T to the south, East Avenue S to the north, 70th Street East to the west, and 87th Street East to the east.
- The region north of SR-138, bordered by Little Rock Wash to the east, 62nd Street East to the west, and East Avenue T to the north.

The project site is not within active quarries. Additionally, the project does not propose mining operations in areas that contain known regionally significant mineral deposits. No impacts to mineral resources of regional or state value would occur.

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

No Impact: The project would not result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The City's General Plan Land Use Map designates the property IND (Industrial). Zoning designation for the proposed project site is HI (Heavy Industrial). According to the City's General Plan Conservation Element, mineral deposits are composed of about 60 percent fine to coarse sand and silt, overlain by about 40 percent pebbly gravel. These mineral deposits are not located on the project site. Therefore, the project would not adversely impact areas that contain known locally important mineral deposits. No impacts to mineral resources of local importance would occur.

MITIGATION MEASURES

No mitigation measures are required.

4.13 Noise

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on a *Noise Impact Study* prepared by RK Engineering Group, Inc., in March 2023 and is presented in Appendix G. The *Noise Impact Study* and the figures in this Section include Lots 12, 16, and 20 in addition to the project.

Background

NOISE LEVELS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3.0 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. 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 three dBA change in community noise levels is noticeable, while a 1.0 to 2.0 dB change is generally not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-70 dBA range.

NOISE METRICS

One of the most frequently used noise metrics that considers both duration and sound power 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 time. 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 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 (10:00 p.m. to 7:00 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5.0 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a 10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than 1.0 dB. Daytime Leq levels are louder than Ldn or CNEL levels; thus, if the Leq meets noise standards, the Ldn and CNEL are also met.

SOUND ATTENUATION

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (i.e., industrial machinery). Additionally, 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 5.0 dBA, while a solid wall or berm reduces noise levels by approximately 7.0 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 a closed window condition. The exterior-to-interior reduction of newer residential units and office buildings constructed to California Energy Code standards is generally 30 dBA or more.

GROUND ABSORPTION

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site, and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA is typically observed over soft ground with landscaping, as compared with a 6.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. For line sources, a 4.5 dBA is typically observed for soft-site conditions compared to the 3.0 dBA drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

Regulatory Programs

FEDERAL

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce.
- Assisting state and local abatement efforts.
- Promoting noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which regulates transit noise, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by transportation sources, the City is restricted to regulating noise generated by the transportation system through nuisance abatement ordinances and land use planning.

STATE

California Department of Health Services Office of Noise Control

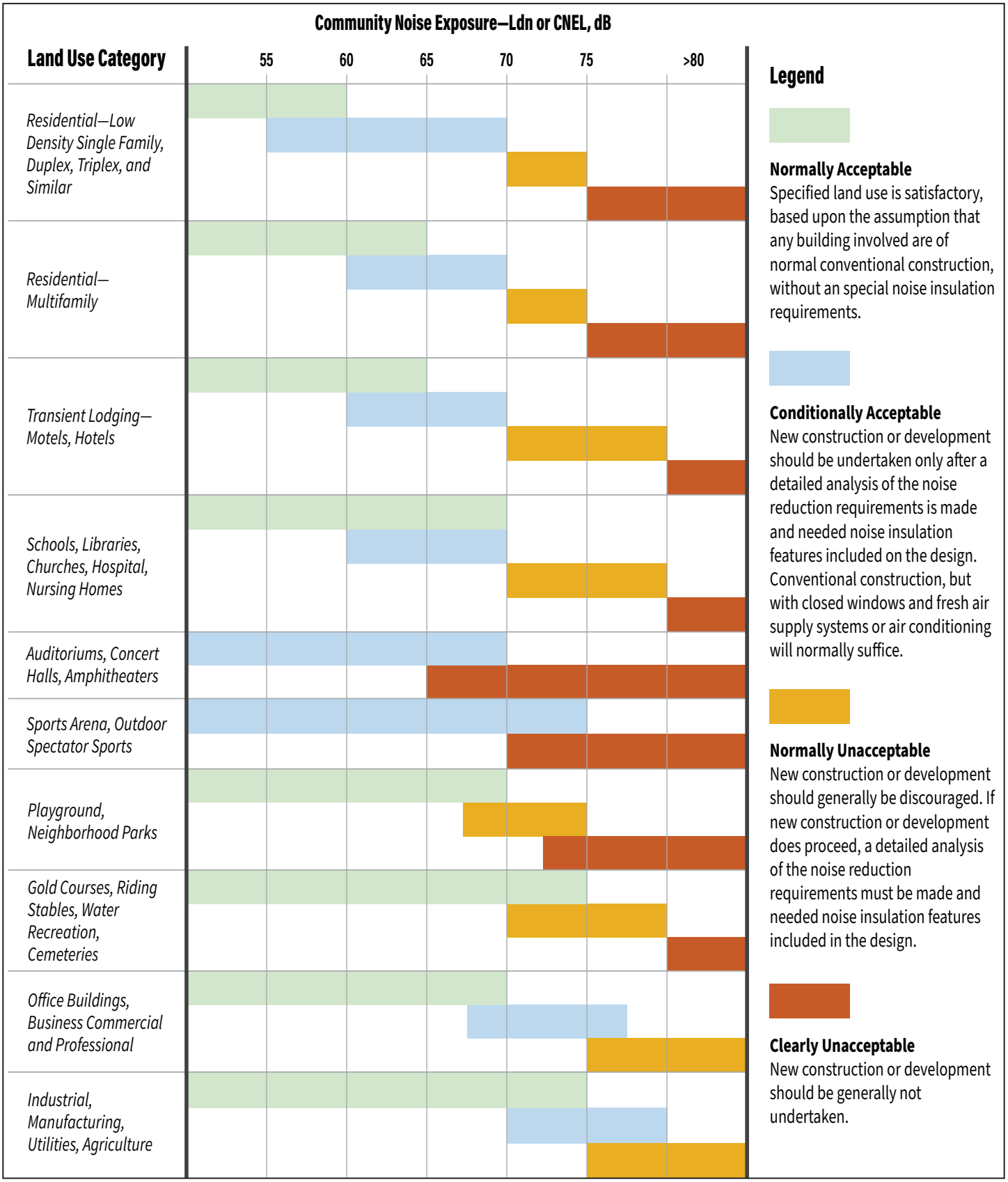
Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.; refer to Figure 4.13-1, *California Noise Land Use Compatibility Standards*.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60 dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45 dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.



Source: Palmdale General Plan 2045, Chapter 16: Noise; July 2022.

California Noise Land Use Compatibility Standards

Figure 4.13-1

CITY OF PALMDALE

The federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized. The City's General Plan and Palmdale Municipal Code establishes applicable policies related to noise.

The General Plan Noise Element is used to ensure the project is compatible from a noise standpoint with the surrounding land uses and consistent with the established plans, policies, and programs for noise control within the City. The PMC Chapter 8.28 (Building Construction Hours of Operation and Noise Control) provides rules and regulations for building construction hours of operation and noise control. PMC Chapter 9.18 (Disturbing, Excessive, Loud, or Offensive Noise) sets the regulations for disturbing, excessive, loud or offensive noise.

General Plan Noise Element

The City's General Plan Noise Element has adopted the State of California Office of Noise Control noise standards for land use compatibility. The City uses the Noise Level Exposure and Land Use Compatibility Guidelines when siting new development and making land use decisions; refer to Table 4.13-1, *Noise Level Exposure and Land Use Compatibility Guidelines*.

Table 4.13-1
Noise Level Exposure and Land Use Compatibility Guidelines

Land Use Categories		Community Noise Equivalent Level (CNEL)			
Category	Land Use Compatibility Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial	Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	75 and above	--
Neighborhood Commercial	Residential – Low Density Single-Family, Duplex, Triplex, and Similar	50-60	55-70	70-75	75 and above
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.					

The City of Palmdale defines the noise compatibility categories as follows:

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.

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

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of

noise reduction requirements must be made and noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

The following goals and policies from the City's General Plan Noise Element are directly relevant to the proposed project:

Goal N-1: Minimize resident exposure to excessive noise.

Policy N-1.1: *Future Noise Levels*. Use the state-recommended noise level guidelines to determine the compatibility of proposed land uses with the existing and future noise environment of each proposed development site.

Policy N-1.2: *Restrict Land Uses*. Restrict noise sensitive land uses near existing or future air, rail, or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including, but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N-1.3: *Acoustical Analysis for Stationary Noise Sources*. When proposed stationary noise sources could exceed an exterior noise level of 65 dBA CNEL at the property line or could impact future noise sensitive land uses, require preparation of an acoustical analysis and mitigation measures to reduce exterior noise levels to no more than 65 dBA CNEL at the property line.

Policy N-1.4: *Noise Abatement Strategies*. Explore the use of noise abatement strategies such as natural barriers, sound walls, and other buffers to mitigate excessive noise.

Policy N-1.5: *Quiet Zones*. Where deemed appropriate, restrict train horn noise by establishing quiet zones within Palmdale based on Train Horn Rule (49 CFR Part 222).

Table 4.13-2, *Stationary Noise Thresholds*, lists the noise levels threshold used to determine whether the project's stationary noise impacts would be significant at the adjacent sensitive receptor locations.

Table 4.13-2
Stationary Noise Thresholds

Land Use	Exterior Noise Threshold (dBA CNEL)
Residential	65
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.	

City of Palmdale Municipal Code Chapters 8.28 and 9.18

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

- PMC Chapter 8.28 – Building Construction Hours of Operation and Noise Control. The City of Palmdale Municipal Code likewise does not establish numerical thresholds for noise produced during construction activity. However, construction-related noise is addressed through the following provisions:

  > *Except as otherwise provided in this chapter, no person shall perform any construction or repair work on any Sunday, or any other day after 8:00 p.m. or before 6:30 a.m., in any residential zone or within 500 feet of any residence, hotel, motel or recreational vehicle park. For the purposes of this section, construction and repair work includes work of any kind upon any building or structure, earth excavating, filling, or moving, and delivery, preparation or operation of construction equipment, materials or supplies where any of the foregoing entails the use of an air compressor, jack hammer, power-driven drill, riveting machine, excavator, semi-truck, diesel power truck, tractor, cement truck, or earth moving equipment, hand hammer, or other machine, tool, device or equipment which makes loud noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area.*

- PMC Chapter 9.18 – Disturbing, Excessive, Loud, or Offensive Noise. The PMC restricts excessive noise that would disturb residential and other sensitive land uses. PMC Chapter 9.18 states that "it shall be unlawful for any person to willfully make or continue, or cause or be made or continued, any loud, unnecessary, or unusual noise." PMC Chapter 9.18 does not establish numerical limits on stationary noise.

For the purpose of this analysis, the requirements set forth in the PMC Chapter 8.28 (Building Construction Hours of Operation and Noise Control) are utilized as the threshold of significance.

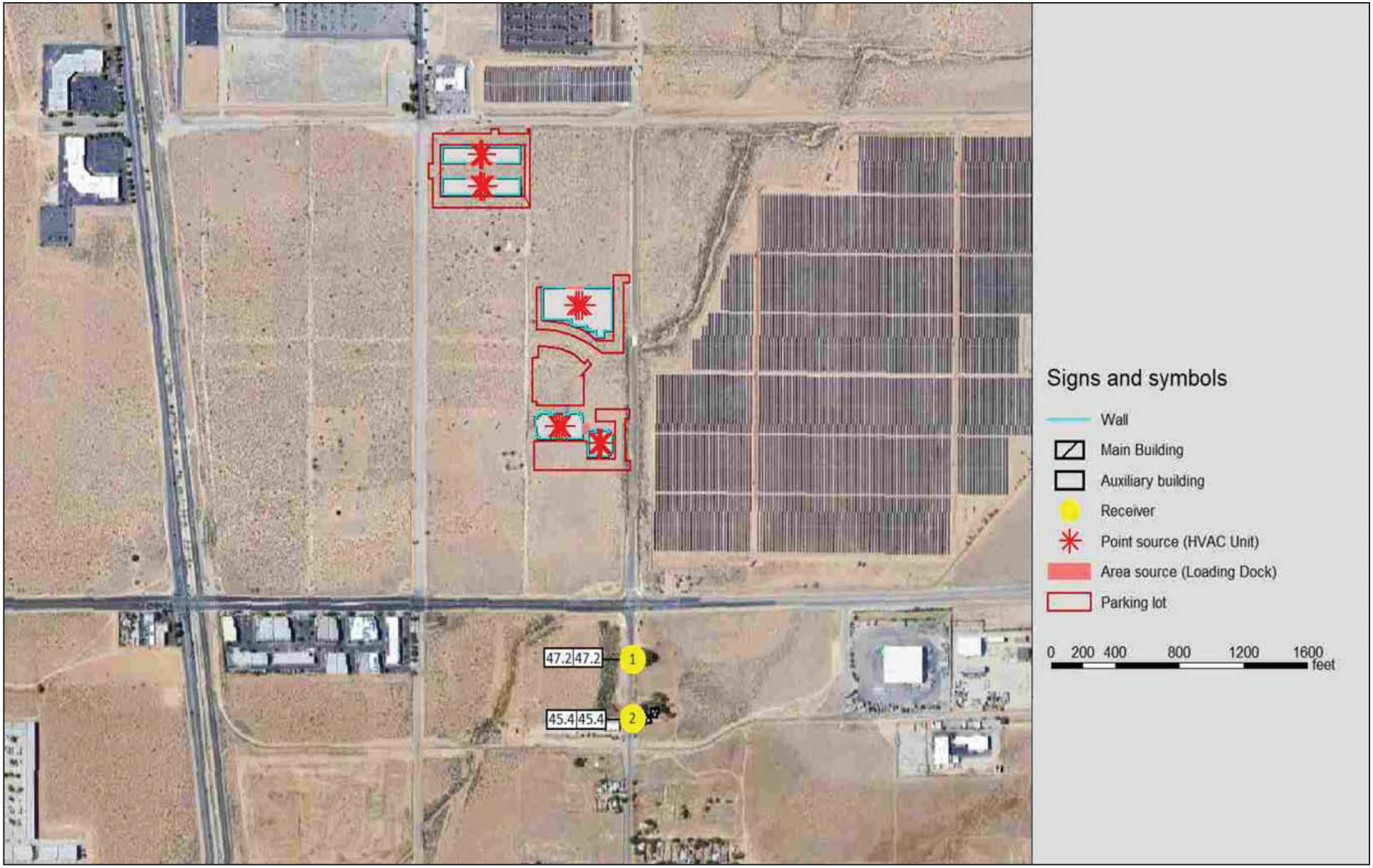
STATIONARY NOISE MODELING

Onsite stationary noise sources were analyzed using SoundPLAN noise modeling software. SoundPLAN is a standards-based program that incorporates more than 20 national and international noise modeling guidelines. Stationary noise sources generated by the project include onsite parking lot noise and loading dock noise, which are classified under industrial sources within SoundPLAN.

Projected noise levels from SoundPLAN are based on the following key parameters:

- Developing three-dimensional noise models of the project site and study area.
- Establishing reference noise level data for project noise sources.
- Predicting the project noise levels at the selected community locations.

The sides of the buildings, walls, etc. were modeled as reflective surfaces and also as diffractive bodies. Most of the ground surrounding the project site consists of pavement, dirt, and natural vegetation and has been run as a hard site (Ground Factor=Zero). The elevation profile for the project site is derived from Google Earth and all the receptors are placed at 5 feet above the ground level.



Source: RK Engineering Group, Inc.; February 10, 2023.

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Typical Operational Day/Night Noise Levels (dBA)

Figure 4.13-2

HVAC EQUIPMENT NOISE

To estimate noise level impacts from onsite HVAC equipment, referenced noise levels obtained by RK Engineering are utilized. Referenced noise levels represent similar commercial and industrial scale HVAC equipment operating under similar conditions as would be found on the project site. Table 4.13-3, *HVAC Referenced Noise Levels*, lists the referenced noise levels of the HVAC equipment. All HVAC units are modeled as point sources and are graphically illustrated in Figure 4.13-2, *Typical Operational Day/Night Noise Levels (dBA)*.

Table 4.13-3
HVAC Referenced Noise Levels

Source	Distance from Source (feet)	Noise Levels (dBA)	
		L_{eq}	L_{max}
HVAC - Industrial	3.0	88.5	88.5
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.			

To estimate the future noise levels during typical operational conditions, referenced noise levels are input into SoundPLAN and projected to the nearest sensitive receptor locations. Adjusted noise levels are based on the distance of the receptor location relative to the noise source, local topography and physical barriers including buildings and sound walls.

LOADING DOCK NOISE

The project will include loading docks. To estimate future noise from loading activity, referenced noise levels are derived from the SoundPLAN emission spectra library. The referenced noise level "Truck: loading general cargo" has been used to determine the project's loading noise levels. Table 4.13-4, *Loading Dock Referenced Noise Levels*, lists the referenced noise levels for loading activity. Loading dock areas are modeled as area sources and are graphically illustrated in Figure 4.13-2, *Typical Operational Day/Night Noise Levels (dBA)*.

Table 4.13-4
Loading Dock Referenced Noise Levels

Noise Source	Noise Levels (dBA)
	L_{eq}
Truck: loading general cargo	80.0
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.	

PARKING LOT NOISE

Parking lot noise would occur from vehicles entering and exiting the site, idling, exhaust, doors slamming, tires screeching, general loading activities, people talking, and the occasional horn honking. Parking lot noise would occur throughout the site and is assessed by using referenced noise levels in the SoundPLAN model. Parking lot noise is based on the type of vehicle and number of movements per hour. Referenced noise levels for parking lot activities are based on the SoundPLAN standard *Parkplatzlärmstudie 2007*. Key inputs for parking lot noise include size of area source, number of movements per hour, type of vehicles, and number of parking spaces within each lot.

RECOMMENDED PROJECT DESIGN FEATURES

The following recommended project design features include standard rules and requirements, best practices, and recognized design guidelines for reducing noise levels. Design features are assumed to be part of the conditions of the project and integrated into its design.

PROJECT IMPACTS

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated: The proposed project would not result in the 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, noise ordinance, or applicable standards of other agencies. The following analysis evaluated potential temporary construction related noise and permanent increases in ambient noise associated with implementation of the proposed project and compares them to the standards established in the City's General Plan and Palmdale Municipal Code.

EXISTING NOISE ENVIRONMENT

The nearest adjacent noise-sensitive land uses are existing residential homes located approximately 990 feet southeast of the southernmost border of the project site and approximately 240 feet south of the centerline of East Rancho Vista Boulevard (Avenue P).

The existing noise environment for the project site and surrounding areas has been established based on noise measurement data collected by RK Engineering. The noise monitoring locations were selected based on proximity and location to adjacent sensitive receptors. Figure 4.13-3, *Noise Monitoring Location Map*, graphically illustrates the location of the noise measurements.

- Noise monitoring location one (L-1) was taken approximately 50 feet west of the centerline of 10th Street East. Nature/bird sounds and roadway noise along 10th Street East and East Rancho Vista Boulevard (Avenue P) were the primary sources of ambient noise observed during the noise measurement.
- Noise monitoring location two (L-2) was taken approximately 50 feet west of the centerline of 10th Street East. Nature/bird sounds and roadway noise along 10th Street East and East Rancho Vista Boulevard (Avenue P) were the primary sources of ambient noise observed during the noise measurement.
- Noise monitoring location three (L-3) was taken approximately 600 feet south of the centerline of Blackbird Drive. Nature/bird sounds, overhead plane activity, and train movement/horns were the primary sources of ambient noise observed during the noise measurement.
- Noise monitoring location four (L-4) was taken approximately 330 feet south of the centerline of Blackbird Drive. Nature/bird sounds, overhead plane activity, and train movement/horns were the primary sources of ambient noise observed during the noise measurement.

Legend:

= Project Site Boundary

= Project Site

= Noise Monitoring Location

Source: RK Engineering Group, Inc.; February 10, 2023.

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Noise Monitoring Location Map

Figure 4.13-3

The results of the noise level measurements are presented in Table 4.13-5, *Noise Level Measurement Results*. The primary sources of operational noise include HVAC mechanical equipment and parking lot and loading dock activity.

Table 4.13-5
Noise Level Measurement Results

Location	Start Time	Stop Time	Leq	Lmax	Lmin	L2	L8	L25	L50
L-1	10:21 AM	10:51 AM	57.0	74.6	38.2	67.0	61.5	53.5	49.5
	Measurement was taken approximately 50 feet west of the centerline of 10th Street East. Ambient noise consisted of nature/bird sounds and roadway noise along 10th Street East and East Rancho Vista Boulevard (Avenue P).								
L-2	10:19 AM	10:49 AM	59.3	81.2	39.8	68	63.3	58.5	54.2
	Measurement was taken approximately 50 feet west of the centerline of 10th Street East. Ambient noise consisted of nature/bird sounds and roadway noise along 10th Street East and Rancho Vista Boulevard.								
L-3	11:10 AM	11:40 AM	49.3	68.9	38.9	56.8	52.7	47.4	43.3
	Measurement was taken approximately 600 feet south of the centerline of Blackbird Drive. Ambient noise consisted of nature/bird sounds, planes overhead, and train movement/horns.								
L-4	11:13 AM	11:43 AM	48.4	61.6	39.6	56.2	53.1	48.2	44.4
	Measurement was taken approximately 330 feet south of the centerline of Blackbird Drive. Ambient noise consisted of nature/bird sounds, planes overhead, and train movement/horns.								
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.									

CONSTRUCTION NOISE IMPACTS

For the proposed project, construction activities include grading, building construction, paving, parking lots, and application of architectural coatings. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Table 4.13-6, *Typical Construction Noise Levels*, shows the typical construction noise levels compiled by the Environmental Protection Agency (EPA) for common type construction equipment. Typical construction noise levels are used to estimate potential project construction noise levels at the adjacent sensitive receptors.

Table 4.13-6
Typical Construction Noise Levels

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94

Table 4.13-6
Typical Construction Noise Levels

Type	Noise Levels (dBA) at 50 Feet
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Other	
Vibrators	68 - 82
Saws	71 - 82
Note: Referenced Noise Levels from the Environmental Protection Agency (EPA). Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.	

The estimated construction noise level to the nearest sensitive receptor from construction activity from the highest noise emitting range construction equipment for a tractor occurring at the southernmost end of the project site would be 62 dB, approximately a 3 dB to 5 dB temporary increase over the existing noise ambient level. The 3 dB to 5 dB temporary increase would be at a level that would not be discernable. As the construction activity moves northerly, construction noise levels would further decrease. The City recognizes that construction noise can be inconvenient to adjacent noise-sensitive land uses; however, it does not specify quantified noise impact criteria or thresholds. To help reduce potential impacts from construction activity, PMC Chapter 8.28 (Building Construction Hours of Operation and Noise Control) has adopted regulations for Building Construction Hours of Operation and Noise Control. The proposed project will be required to comply with the following:

> *No person shall perform any construction or repair work on any Sunday, or any other day after 8:00 p.m. or before 6:30 a.m., in any residential zone or within 500 feet of any residence, hotel, motel or recreational vehicle park. For the purposes of this section, construction and repair work includes work of any kind upon any building or structure, earth excavating, filling, or moving, and delivery, preparation or operation of construction equipment, materials or supplies where any of the foregoing entails the use of an air compressor, jack hammer, power-driven drill, riveting machine, excavator, semi-truck, diesel power truck, tractor, cement truck, or earth moving equipment, hand hammer, or other machine, tool, device or equipment which makes loud noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area.*

By complying with the requirements set forth in the PMC Chapter 8.28 (Building Construction Hours of Operation and Noise Control), construction-related noise levels would not exceed any standards, nor would construction activities create a substantial temporary increase in ambient noise levels from construction of the proposed project and potential impacts would be less than significant. To minimize construction noise, Mitigation Measures NOI-1 and NOI-2 are recommended and would reduce impacts to less than significant.

OPERATIONAL NOISE IMPACTS

The noise analysis evaluates the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3). To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways and from onsite activities, which have been analyzed separately below.

Roadway Noise

The project is not expected to cause a substantial increase in ambient noise levels at nearby residential receptor locations as a result of increased traffic volumes along adjacent roadways. Typically, it takes a doubling of traffic volume along a roadway to cause a barely perceptible change in noise levels.

Based on the *Level of Service Deficiency and Vehicle Miles Traveled Analysis (*Appendix I) – *PBP Industrial Project,* performed by David Evans and Associates Inc. in December 2022, (Traffic Study) the project is not expected to add a significant amount of traffic to Rancho Vista Boulevard or 10th Street East, which are the two main sources of roadway noise adjacent to the nearest residential land uses.

According to the Traffic Study, East Rancho Vista Boulevard (Avenue P) currently experiences an average daily traffic (ADT) of more than 25,000 in the vicinity of the site. Per the same analysis, the project is expected to generate a total of 2,058 ADT. The relatively small amount of traffic added by the project in comparison to the existing volume of the adjacent roadway network would not be significant.

Therefore, it is reasonable to conclude that the project would not result in a significant permanent increase in ambient noise levels in the vicinity of the site as a result of increased traffic volumes along adjacent roadways.

Onsite Noise Sources

Onsite stationary noise impacts were assessed from the project site to the nearest adjacent sensitive receptor locations. Stationary noise sources occur on the project site and include HVAC equipment, parking lot activity, and loading dock noise.

HVAC equipment will be located on the roofs of the proposed buildings. HVAC equipment is expected to be shielded from the line of sight of the adjacent sensitive receptors by a parapet wall.

Loading Dock noise would occur from truck movement/idling and loading and unloading activities.

Onsite vehicular parking lot noise would occur from vehicle engine idling and exhaust, doors slamming, tires screeching, general loading activities, people talking, and the occasional horn honking. Parking lot activity is expected to occur along all project driveways, parking lots, and loading areas. Table 4.13-7, *Project Stationary Noise Levels*, shows the estimated operational noise levels at the closest sensitive receptors.

Table 4.13-7
Project Stationary Noise Levels

Location	Exterior Project Noise Level (Leq)	Exterior Project Noise Level (CNEL)[1]	Exterior Noise Standard (CNEL)[2]	Noise Level Exceeds Standard (?)
Receptor 1: Southeast of project site	47.2	53.9	65.0	No
Receptor 2: Southeast of project site	45.4	52.1		No

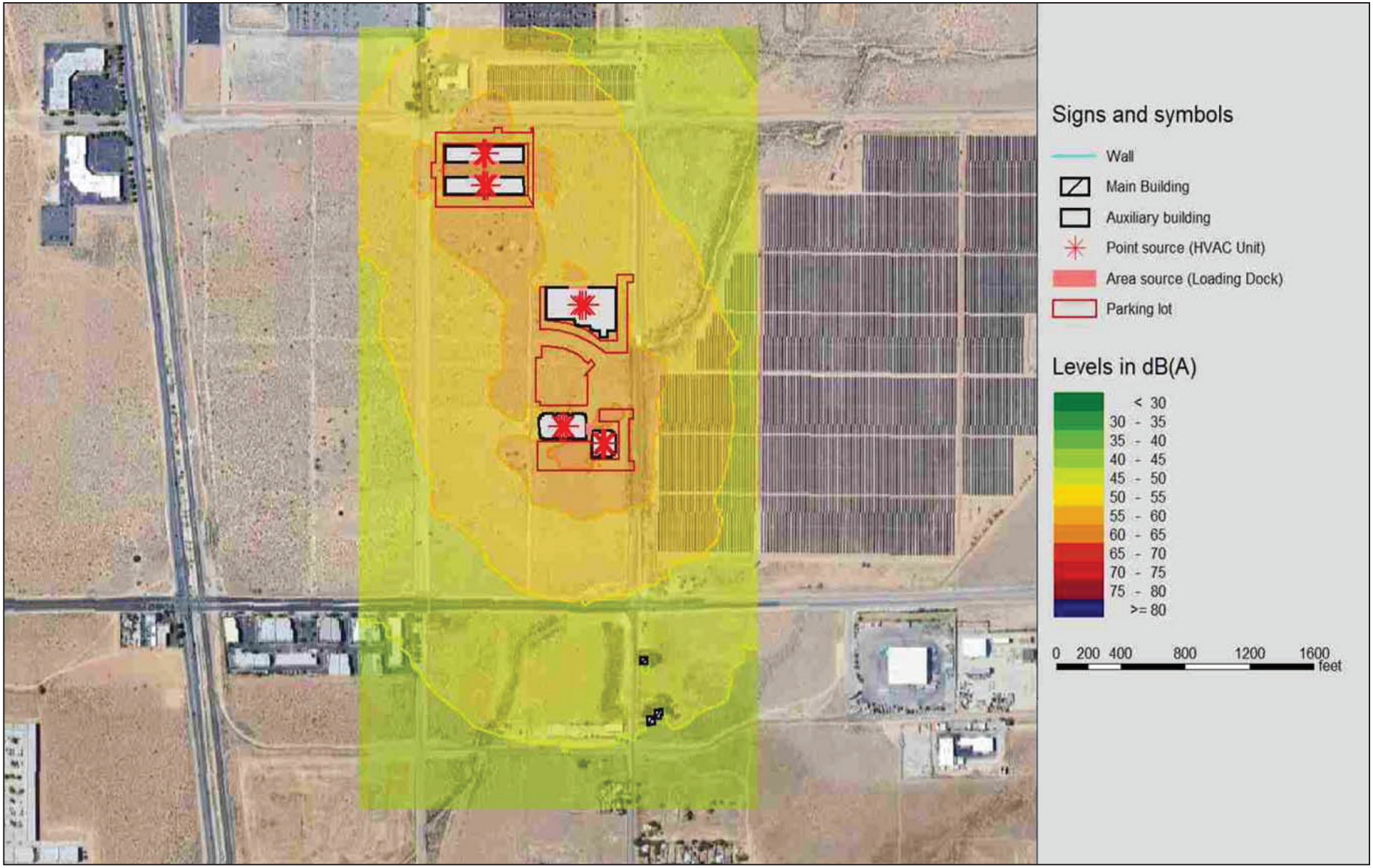
Notes:
[1] Estimated 24-hour CNEL assumes all project noise sources will operate continuously during both daytime and nighttime hours, as a worst-case scenario.
[2] City of Palmdale General Plan 2045 Noise Element, Goal N-1.
Source: RK Engineering Group, Inc., *Noise Impact Study*; March 29, 2023.

The noise standard for all exterior residential land uses is 65 dBA CNEL. The results of the stationary noise level measurements are presented in Table 4.13-7 and also shown in Figure 4.13-4a, *Daytime Operational Noise Contours*, and Figure 4.13-4b, *Nighttime Operational Noise Contours*. The noise levels generated by the project are not expected to exceed the City's exterior noise standards at any receptor locations and potential operational noise impacts would be less than significant. To minimize operational noise impacts, Mitigation Measure NOI-3 is recommended which would shield HVAC units from the line of sight of adjacent properties behind rooftop parapet walls and Mitigation Measure NOI-4 is recommended which would require engine idling time for all delivery vehicles and moving trucks should be limited to 5 minutes or less. Therefore, with implementation of Mitigation Measures NOI-3 and NOI-4, stationary noise impacts would be reduced to less than significant.

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

Less Than Significant Impact: The proposed project would not result in the generation of excessive ground borne vibration or ground borne noise levels. Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

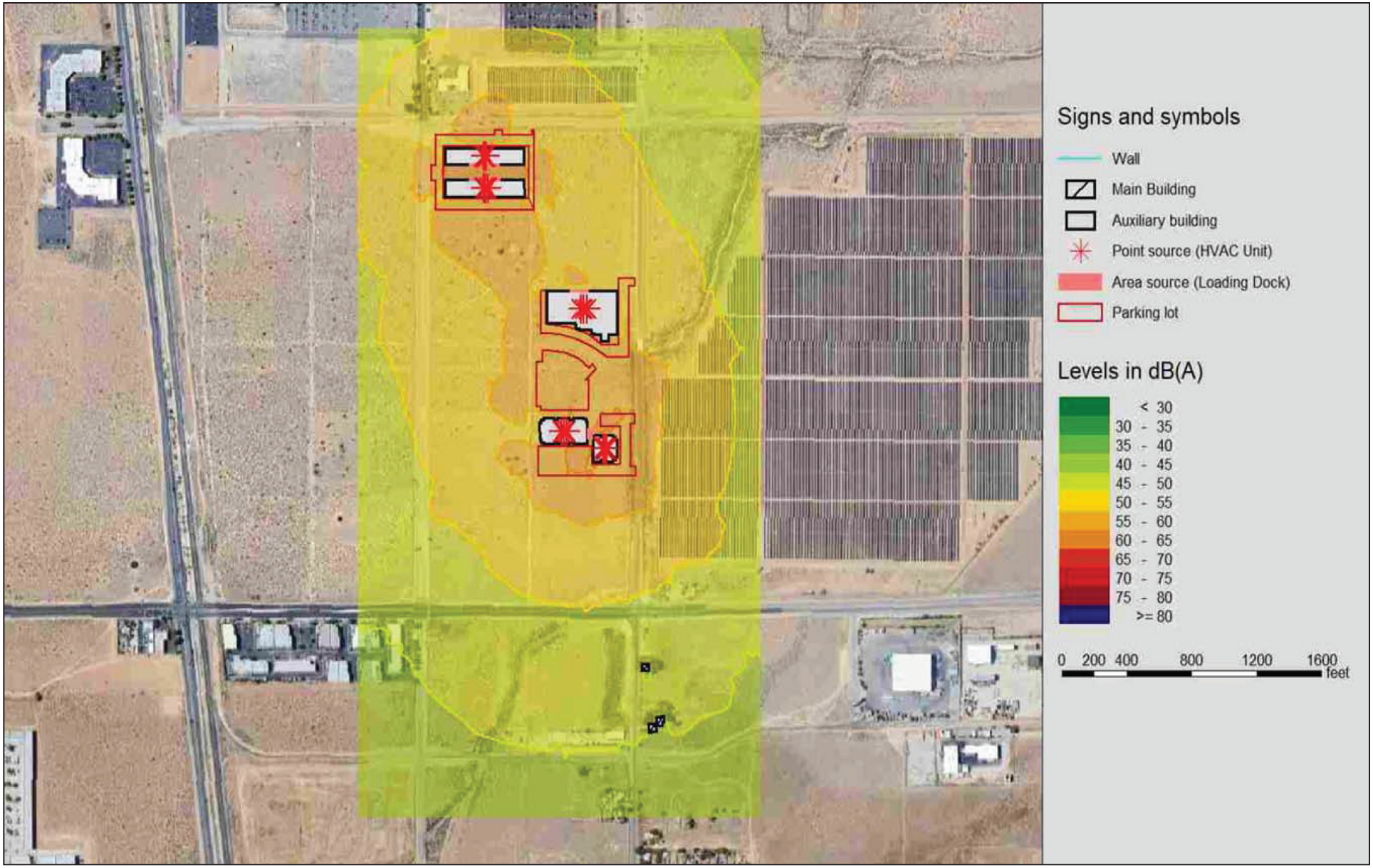
There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of one micro inch per second. Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6.0 VdB per doubling of the distance from the vibration source.



Source: RK Engineering Group, Inc.; February 10, 2023.

Daytime Operational Noise Contours

Figure 4.13-4a



Source: RK Engineering Group, Inc.; February 10, 2023.

Nighttime Operational Noise Contours

Figure 4.13-4b

VIBRATION STANDARDS

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

Caltrans issued the *Transportation- and Construction-Induced Vibration Guidance Manual* in 2004. The manual provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous (construction-related) and transient (transportation-related) sources of vibration, which found that the human response becomes distinctly perceptible at 0.25 inch per second PPV for transient sources and 0.04 inch per second PPV for continuous sources.

ESTIMATED CONSTRUCTION NOISE VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 4.13-8, *Vibration Source Levels for Construction Equipment*, gives approximate vibration levels for construction activities. The data in Table 4.13-8 provides a reasonable estimate for a wide range of soil conditions. The construction-related vibration impacts have been calculated through the vibration levels shown in Table 4.13-8 and through typical vibration propagation rates.

The construction activities for the proposed project are anticipated to include grading, building construction, paving, parking lots, and application of architectural coatings. The project's southernmost boundary is located approximately 900 feet from the nearest residential sensitive receptors.

Table 4.13-8
Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact) (upper range typical)	1.518 0.644	112 104
Pile driver (sonic) (upper range typical)	0.734 0.170	105 93
Clam shovel drop (slurry wall)	0.202	94
Vibratory Roller	0.210	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: Federal Transit Administration, 2018.		

Caltrans research found that human response to transient sources becomes distinctly perceptible at 0.25 inch per second PPV. The primary source of vibration during construction would be from the operation of a bulldozer. From Table 4.13-8 above, a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. At 80 feet from the construction activity, the vibration level would be 0.058 inch per second PPV, which would be below the threshold standards. At the closest sensitive receptor to the project site at 900 feet, the vibration level would be substantially less than threshold.

ESTIMATED OPERATIONAL VIBRATION IMPACTS

The operation of the project would involve vehicle traffic and associated truck deliveries. A fully loaded truck would have a vibration level of 0.076 at 25 feet, which is well below the distinctly perceptible threshold of 0.25 inch per second PPV. The closest roadway that could generate truck traffic would be Rancho Vista Boulevard at a distance of 240 feet. At this distance, the potential vibration threshold would be less than the perceptible threshold of 0.25 inch per second PPV. Therefore, a less than significant vibration impact is anticipated from the operation of the proposed 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?

No Impact: The proposed project would not expose people residing or working in the project area to excessive noise levels from an aircraft. The proposed project site is located within the influence area of the adjacent Palmdale Regional Airport, located in Palmdale, California. A noise/land use compatibility assessment has been performed based on the General Plan Noise Element Figure 16.2 – Palmdale Airport Influence Area Noise Levels, refer to Figure 4.13-5, *Palmdale Airport/USAF Plan 42 Influence Area Noise Levels*. The project is located within the 65 CNEL contour range, which is considered to have a "Normally Acceptable" and "Conditionally Acceptable" land use compatibility for industrial land uses and residential land uses.

Portions of the project area are within Plant 42, which is a 65 to 69 dB Aircraft Noise Contour Area. According to Plant 42 Airport Land Use Compatibility Use Zones, Heavy Industrial land uses are permitted within the 65-69 dB Aircraft Noise Contour Zone. Therefore, implementation of the proposed project would not result in excessive noise impacts from Plant 42.

Therefore, people residing and working in the project area will not be exposed to excessive noise levels from project or airport activity.

MITIGATION MEASURES

NOI-1: All construction activities should take place Monday through Saturday, between the hours of 6:30 a.m. to 8:00 p.m. No construction should occur on Sundays.

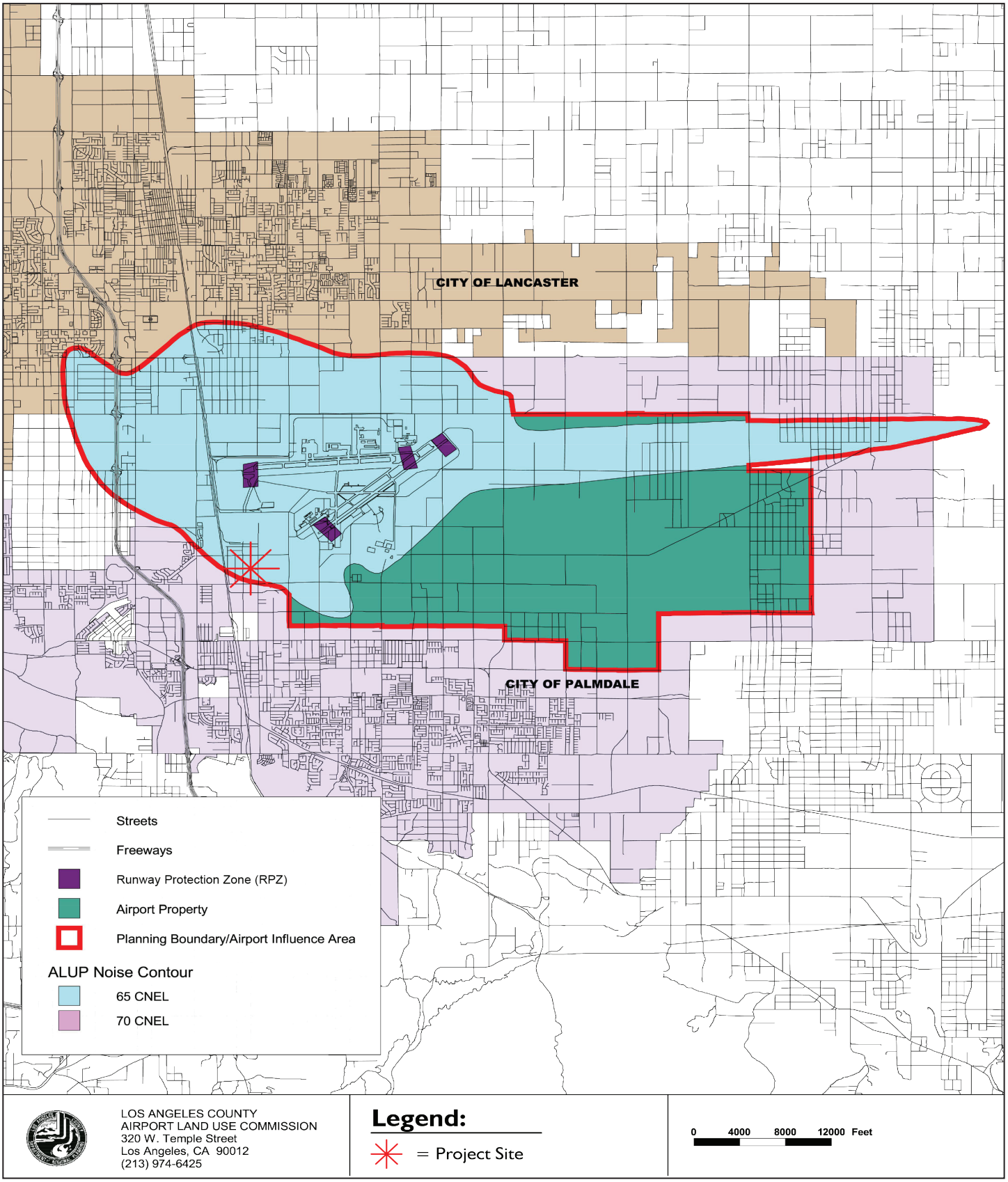
NOI-2: The project should implement construction best practices to reduce noise levels. Best management practices should include the following:

- All construction equipment should be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).

- If feasible, electric hook-ups should be provided to avoid the use of generators.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, should be turned off when not in use for more than five minutes.

NOI-3: All HVAC equipment should be shielded from the line of sight of adjacent properties behind rooftop parapet walls.

NOI-4: Engine idling time for all delivery vehicles and moving trucks should be limited to five minutes or less. Signage should be posted near the loading areas indicating the idling time restrictions.



Source: RK Engineering Group, Inc.; February 10, 2023.

Palmdale Airport/USAF Plan 42 Influence Area Noise Levels

Figure 4.13-5

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4.14 Population and Housing

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

Less Than Significant Impact: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure). The project does not propose any residential development. The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The project is consistent with the General Plan. Project roadways and infrastructure improvements would serve the project and would not facilitate unplanned growth in the project area. The project would generate a few permanent employment opportunities and temporary construction job opportunities. It is anticipated that permanent and full-time employment opportunities would be filled from the local labor pool and would not result in the relocation of new households or the need to construct additional housing. Implementation of the proposed project would not result in substantial unplanned population growth and less than significant impacts would occur.

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

No Impact: Implementation of the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The project site is vacant and does not contain existing residential uses. Additionally, the proposed project is located within the IND (Industrial) General Plan land use designation and HI (Heavy Industrial) zone and would not displace future residential development opportunities. The project would not displace substantial numbers of existing people or housing that would require the construction of replacement housing elsewhere.

MITIGATION MEASURES

No mitigation measures are required.

4.15 Public Services

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

i) Fire protection?

Less Than Significant Impact: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

The Los Angeles County Fire Department would provide fire protection service for the project. At the time of preparing this Initial Study, the Los Angeles County Fire Department had not provided a response. The closest fire station would be Fire Station 24, located at 1050 West Rancho Vista Boulevard, approximately 1.8 miles from the project site. Fire Station 37, located at 38318 9th Street East, is 1.9 miles from the project site. Fire Station 93 located at 5624 East Avenue R is 5.4 miles away from the project site.

Implementation of the project would incrementally increase the demand for fire protection services. The project would be consistent with the City's General Plan and would not result in substantial unplanned growth that would require additional fire protection services beyond

those identified in the General Plan. The project would be reviewed by the Los Angeles County Fire Department to ensure it complies with required Los Angeles County Fire Department codes, ordinances, and regulations including, but not limited to, fire prevention access and suppression measures, fire hydrant location and sprinkler systems, and emergency access. Additionally, the project would be required to pay Public Facility Development Impact Fees in accordance with PMC Chapter 3.42 (Fire Facilities Impact Fee Requirements). The purpose of the fee is to fund the maintenance of existing public facilities and construction of new public facilities generated by demand from new development projects. With compliance with Los Angeles County Fire Codes and Standards and payment of Fire Facilities Impact Fee Requirements, potential impacts to fire protection services would be less than significant.

ii) Police protection?

Less Than Significant Impact: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

The Los Angeles County Sheriff's Department (LACSD) would provide police protection services for the project site. As part of this Initial Study, a request was sent to the Los Angeles County Sherriff's Department for information on current facilities and staffing levels and potential impacts to police protection service that could be associated with the project; refer to Appendix H, Public Service Correspondence.

The Los Angeles Sheriff's Department maintains a Sheriff's Station (Station) at 750 East Avenue Q, approximately 1.7 miles away from the project site. LACSD adheres to the industry standard of 10 minutes for emergency calls, 20.00 minutes for priority calls and 60 minutes for routine calls. During the Year 2021, the Station averaged response times of 5.38 minutes for emergency calls, 21.44 minutes for priority calls and 139 minutes for routine calls. According to LACSD, the Station is understaffed and assigning additional personnel to the Station to meet an acceptable service ratio would intensify the current shortage of facility space and supporting equipment.

The project is estimated to generate 807 employees based on the Antelope Valley 2022 School Facilities Fee Justification Report of 2.69 employees per 1,000 square feet of area and would incrementally increase the need for law enforcement protection services during daytime hours. The project would be consistent with the City's General Plan and would not result in unplanned growth. According to the General Plan EIR, new development in the City would be within the existing service area of LACSD and would not require expansion of the service area or would not result in the need to construct new police facilities. Additionally, the traffic analysis prepared for the project identified that with mitigation measures, the project would not reduce the level of service of any project area roadway segments or intersections that could impact emergency responses times.

The proposed project would be reviewed by the Sheriff's Department to ensure it would comply with the Sheriff's Department Codes and Standards and Crime Prevention through Environmental Design recommendations to help reduce the opportunity for criminal activities.

Additionally, the project would be required to provide Public Facility Development Impact Fees Requirements in accordance with PMC Chapter 3.45 (Public Facility Development Impact Fee Requirements). The purpose of the fee is to fund the maintenance of existing public facilities and construction of new public facilities generated by demand from new development projects. With compliance with Los Angeles County Sheriff Codes and Standards and Crime Prevention through Environmental Design recommendations and payment of Public Facility Development Impact Fees, potential impacts to police protection services would be less than significant.

iii) Schools?

No Impact: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of 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 school services. The proposed project consists of the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land. The proposed project would not directly result in any student generation, as no homes or other growth inducing uses are proposed. Implementation of the proposed project would not result in the need for the construction of additional school facilities. Construction activities associated with the proposed project would not have any effect on access and operation of school sites. Therefore, no impacts to school services would occur.

iv) Parks?

No Impact: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for park services. According to the City' General Plan, the City maintains a total of 19 parks, totaling 370 acres. The proposed project does not propose residential land uses and would not have an adverse impact on the existing carry capacities of existing parks in the City and would not generate additional demands for additional park services or expansion of existing park facilities. There would be no adverse impact to park facilities.

v) Other public facilities?

Less Than Significant Impact: Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities. The project is consistent with the City's General Plan and Zoning Code and would not contribute to a substantial increase in unplanned population growth that would necessitate

either construction or expansion of a hospital, community-based clinic, or other health services facility or program. Impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

4.16 Recreation

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

PROJECT IMPACTS AND MITIGATION MEASURES

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

No Impact: Implementation of the project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The proposed project does not propose any new residential uses that would generate population and increase the use of existing parks or recreational facilities or generate additional demands for park and recreational facilities. Therefore, no impacts to existing recreation facilities and parks would be associated with implementation of the proposed project.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The proposed project does not propose construction of any new recreational facilities or proposes the expansion of existing recreational facilities. Therefore, the proposed project would have no impact on the environment regarding construction or expansion of existing recreational facilities.

MITIGATION MEASURES

No mitigation measures are required.

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4.17 Transportation

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

PROJECT IMPACTS AND MITIGATION MEASURES

The following analysis is based on a *Level of Service Deficiency and Vehicle Miles Traveled Analysis* prepared by David Evans and Associates in November 2023 and is presented in Appendix I.

The traffic analysis evaluates the construction and operation of two industrial buildings totaling approximately 118,200 square feet of building area and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3). To provide a cumulative evaluation of potential impacts to the project area, the analysis considers the project along with development of approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

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

Less Than Significant Impact With Mitigation Incorporated: The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

CIRCULATION SYSTEM

Traffic Analysis

The purpose of this traffic analysis is to evaluate potentially significant traffic conditions caused by the proposed project under the following scenarios:

- Existing (2022) Conditions
- Opening Year 2024 Background Conditions with the Project

Existing (2022) Traffic Conditions. This scenario represents existing transportation conditions at the time this report was prepared. Data includes calibrated traffic counts collected on September 7, 2022, and September 8, 2022 (while school was in session) and current roadway and intersection geometries. This scenario is used as the baseline condition.

Opening Year 2024 Background Traffic Conditions without the Project. This scenario represents conditions at the time the project is anticipated to be fully constructed and occupied (known as opening year which is the year 2024 for this project) but without traffic generated by the project. This scenario is comprised of two components of cumulative traffic growth:

1) Ambient growth—a general rate of growth in traffic from overall regional growth but not specific to any nearby development (assumed to be two percent annually for this study).

2) Traffic generated by other nearby development, from a list provided by the City of Palmdale, that is planned and/or approved for construction in the very near future, but not yet built.

Opening Year 2024 Background Traffic Conditions with the Project. This scenario adds the project's estimated traffic generation at opening year (2024) to the opening year background conditions. The analysis includes ambient growth rate in traffic from overall regional growth but not specific to any nearby development (assumed to be two percent annually for this study and traffic generated by one cumulative development project identified by the City of Palmdale near the study area. This project is identified as an industrial project—a 1,050,000-square-foot ecommerce fulfillment center warehouse footprint that includes about 20,000 square feet of interior office/employee support space, 113.69-acre site is located on the southeast corner of West Avenue M/Columbia Way and 10th Street West.

EXISTING STREET SYSTEM AND STUDY INTERSECTIONS 2022 CONDITIONS

Based on the traffic analysis (Appendix I) roadways would provide local and regional access to the project within the study area:

- SR-14 Freeway is a north-south six-lane divided freeway (three lanes in each direction) which provides regional access for the entire Antelope Valley to the rest of Los Angeles County. SR-14 runs north to Kern County and south to the San Fernando Valley to provide the Palmdale community with regional and inter-regional connectivity.
- Rancho Vista Boulevard/East Rancho Vista Boulevard (Avenue P) is identified as a Crosstown street/major arterial on the recently adopted Palmdale 2045 Palmdale Roadway Classification Map and is an east-west four-lane road (two in each direction, with turn lanes at key intersections, and raised curbed median or two-way left turn lane median) in the project study area. Rancho Vista Boulevard changes to East Rancho Vista Boulevard (Avenue P) east of Sierra Highway and provides indirect access to the project site. The posted speed limit is 60 mph.
- 10th Street East is also identified as a Crosstown street/major arterial on the Palmdale 2045 circulation map and is a north-south two-lane road (one in each direction) in the project study area. 10th Street East would provide driveway access to the project's Lot 12 and Lot 20. The posted speed limit is 50 mph.
- Lockheed Way is identified as a Connector street/secondary arterial on the Palmdale 2045 circulation map and is a north-south six-lane road (two northbound, three southbound and a two-way-left-turn lane median) in the project study area. Lockheed Way would provide driveway access to the project's Lot 3.
- Sierra Highway is identified as a Regional/arterial on the Palmdale 2045 circulation map and is a north-south four-lane road (two in each direction with turn lanes at key intersections) in the project study area. Sierra Highway extends from the City of Mojave, in Kern County, through Palmdale. The posted speed limit is 55 mph.

- Blackbird Drive is identified as Connector street/secondary arterial on the Palmdale 2045 circulation map and is an east-west two-lane road (one in each direction) in the project study area. Blackbird Drive would provide driveway access to Lot 3. The posted speed limit is 45 mph.
- Avenue O-12 is identified as a neighborhood/local street on the Palmdale 2045 circulation map. This street does not exist today but would be an east-west street connecting Lockheed Way and 10th Street East.
- 10th Street West is identified as a Regional/arterial on the Palmdale 2045 circulation map and is a north-south six-lane facility where it intersects with Rancho Vista Boulevard. 10th Street West accesses SR-14 via an interchange from which project generated traffic is likely to use for regional access to/from the project site. The posted speed limit is 45 mph.

Study Area Intersections

The project study area includes the eight existing intersections listed below and shown in Figure 4.17-1, *Study Intersection Locations*.

- Blackbird Drive/Lockheed Way
- Blackbird Drive/10th Street East
- East Rancho Vista Boulevard (Avenue P)/Lockheed Way
- East Rancho Vista Boulevard (Avenue P)/10th Street East
- Rancho Vista Boulevard/Sierra Highway
- Rancho Vista Boulevard/SR-14 NB Off Ramp
- Rancho Vista Boulevard/10th Street West
- 10th Street West/SR-14 SB Off Ramp

METHODOLOGY

The City of Palmdale criteria for identifying deficiencies in the operation of intersections are the policies adopted in the City's 1993 General Plan. The following policy from the 1993 General Plan was used in this analysis:

Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

Intersection Capacity Utilization (ICU)

The intersection level of service (LOS) analyses is based on the methods in the Highway Capacity Manual (6th Edition) which determines intersection LOS based on the peak 15-minutes of the peak hour. Since the LOS using this method represents a short duration during peak periods, a LOS D is the applicable standard for this analysis. A deficiency is considered project-specific if the addition of project traffic causes the LOS at an intersection to change from a LOS D or better to a LOS E or F. Where a project contributes to a level of service operating at a LOS E or F without the project, any added project traffic to the intersection is considered a project deficiency. In this case, the deficiency would be considered cumulative, and the project's fair share contribution to the cost of improvements would be calculated for the intersection. Alternatively, the project could implement improvements that effectively offset the project's increase in delay and improve the intersection to at least its pre-project condition.

Source: David Evans and Associates Inc.; November 20, 2023.

PBP INDUSTRIAL PROJECT | SPR NO. 20-011
Initial Study/Mitigated Negative Declaration

Study Intersection Locations

Figure 4.17-1

Signalized Intersections

The analysis determines a LOS that quantitatively describes the operating characteristics of signalized intersections in terms of the average control delay per vehicle. Table 4.17-1, *Level of Service Criteria for Signalized Intersections*, provides LOS thresholds for signalized intersections.

Table 4.17-1
Level of Service Criteria for Signalized Intersections

Control Delay (seconds/vehicle)	LOS by Volume-to-Capacity Ratio[1]	
	Volume/Capacity Ratio ≤ 0.99	Volume/Capacity Ratio < 1.0[2]
≤ 10	A	F
> 10 – 20	B	F
> 20 – 35	C	F
> 35 – 55	D	F
> 55 – 80	E	F
> 80	F	F

Notes:
1 For approach-based and intersection-wide assessments, LOS is defined solely by control delay.
2 Intersections with a volume to capacity ratio exceeding 1.0 are saturated regardless of the computed average delay and operate at LOS F.
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.

Unsignalized Intersections

The LOS for a two-way-stop-controlled (TWSC) intersection is determined by the computed or measured control delay. The LOS is determined for each minor-street movement (or shared movement), as major-street left turns, by using the criteria provided in Table 4.17-2, *Level of Service Criteria for Two-Way Stop Controlled Intersections*. Table 4.17-2 referenced from HCM 6 LOS thresholds for TWSC.

Table 4.17-2
Level of Service Criteria for Two-Way Stop Controlled Intersections

Control Delay (seconds/vehicle)	LOS by Volume-to-Capacity Ratio[1]	
	Volume/Capacity Ratio ≤ 0.99	Volume/Capacity Ratio < 1.0
0 – 10	A	F
> 10 -15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Notes:
[1] The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-Street approaches or for the intersection as a whole. The reported LOS grade (A-F) is that for the worst stop-controlled movement in terms of delay.
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.

TRAFFIC ANALYSIS

Existing Traffic Analysis

The existing intersection capacity and level of service analyses is based on existing AM and PM peak hour traffic counts and current intersection geometrics. The results of the analysis are shown in Table 4.17-3, *Existing (2022) Intersection Levels of Service*. Figure 4.17-2, *Existing Intersection Lane Geometrics*, illustrates the existing study area intersection geometrics. As shown in Table 4.17-3, four intersections currently operate with a LOS deficiency in one or more peak hours.

Table 4.17-3
Existing (2022) Intersection Levels of Service

Intersection	Control Type	Existing (2022) Conditions			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Blackbird Drive/Lockheed Way	TWSC	16.1	C	15.2	C
2. Blackbird Drive/10th Street East	TWSC	8.7	A	9.1	A
3. East Rancho Vista Boulevard (Avenue P)/Lockheed Way	TS	100.2	F	82.8	F
4. East Rancho Vista Boulevard (Avenue P)/10th Street East	TS	54.3	D	79.9	E
5. Rancho Vista Boulevard/Sierra Highway	TS	44.4	D	149.9	F
6. Rancho Vista Boulevard/SR-14 NB Off Ramp	TS	11.8	B	13.7	B
7. Rancho Vista Boulevard/10th Street West	TS	52.7	D	93.9	F
8. 10th Street West/SR-14 SB Off Ramp	TS	8.2	A	25.7	C

Note: Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.

Project Trip Generation

The trip generation assumes two industrial buildings totaling approximately 118,200 square feet of building area proposed on Lot 3. To provide a cumulative evaluation of potential impacts to the project area, the project trip generation also considers approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

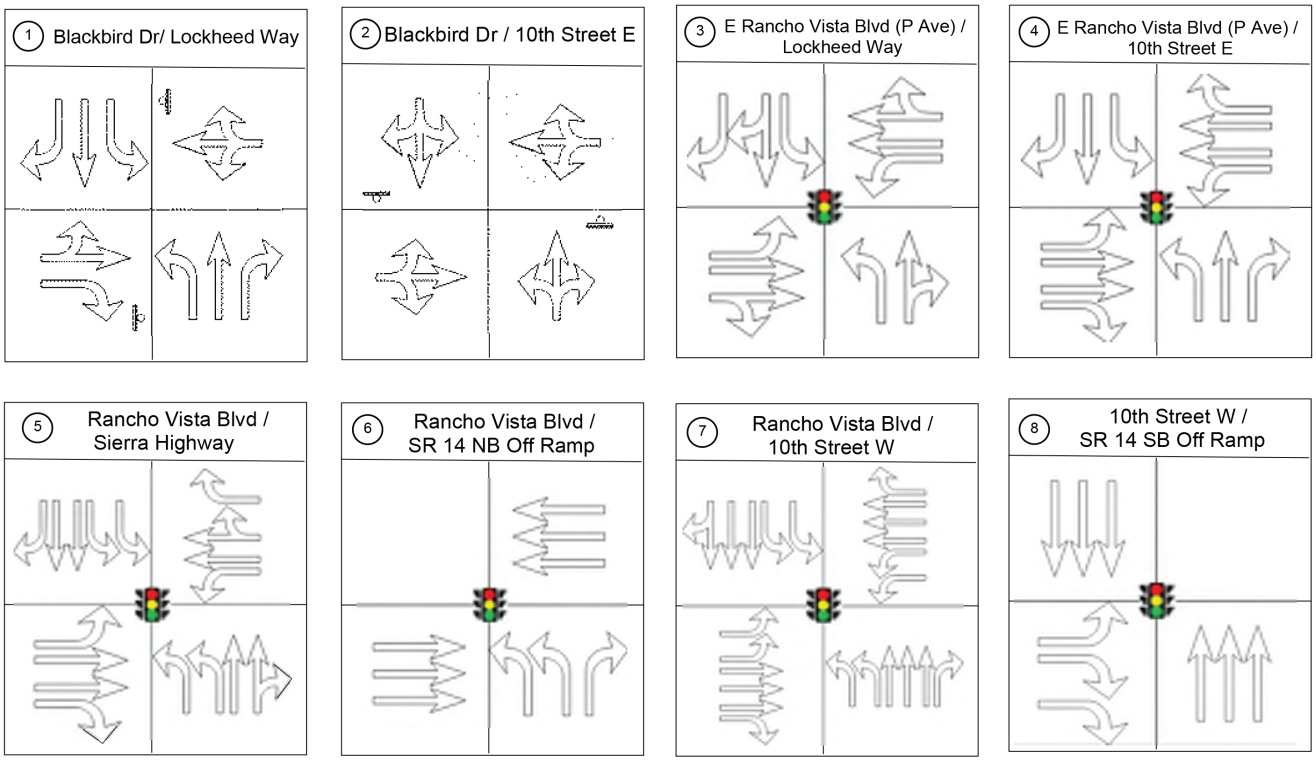
The land uses described above generate a mix of automobile and light to heavy duty truck traffic. For truck intensive land uses (i.e., industrial and warehousing), it is standard practice to convert the estimated number of trucks into "passenger car equivalents (PCEs)" when analyzing intersection capacity and level of service[3]. As shown in Table 4.17-4, *Estimated Project Trip Generation*, the combined project lots generate about 2,320 daily PCEs, 340 and 309 PCEs in the AM and PM peak hours, respectively.

[3] Source of passenger car/truck mode split used to estimate trip generation: Truck Trip Generation Study. City of Fontana and County of San Bernardino. August 2003. Note: trip generation for office use is not converted to PCEs.

Table 4.17-4
Estimated Project Trip Generation

No.	Parcel/Land Use	Quantity (SF of Floor Area)	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
1	**Parcel 3 - Industrial Building Land Use Category (ITE 110)**								
	Rate (Trips per 1,000 Sq. Feet Gross Floor Area)	100,000	4.87	0.65	0.09	0.74	0.09	0.56	0.65
	Trips		487	65	9	74	9	56	65
2	**Parcel 12 - Industrial Building Land Use Category (ITE 110)**								
	Rate (Trips per 1,000 Sq. Feet Gross Floor Area)	100,000	4.87	0.65	0.09	0.74	0.09	0.56	0.65
	Trips		487	65	9	74	9	56	65
3	**Parcel 16 - Retention Basin and Surface Parking**	Not Applicable							
4	**Parcel 20 - Office Buildings Land Use Category (ITE 710)**								
	Rate (Trips per 1,000 Sq. Feet Gross Floor Area)	100,000	10.84	1.34	0.18	1.52	0.24	1.20	1.44
	Trips		1,084	134	18	152	24	120	144
Total Vehicular Trip Generation (Industrial Uses)		200,000	974	130	18	148	18	112	130
Total Vehicular Trip Generation (Office Uses)		100,000	1,084	134	18	152	24	120	144
Total Vehicular Trip Generation (Combined)		300,000	2,058	264	36	300	43	231	274
		Project Trip Generation by Vehicle Type and Passenger Car Equivalents (PCEs)							
	Applied to Industrial Uses Only	Mode Share							
	Passenger Cars (Percent of Total)	78.60%	766	102	14	116	14	88	102
	2-Axle Trucks (Percent of Total)	8.00%	78	10	1	12	1	9	10
	3-Axle Trucks (Percent of Total)	3.90%	38	5	1	6	1	4	5
	4-Axle Trucks (Percent of Total)	9.50%	93	12	2	14	2	11	12
	Subtotal	100.00%	974	130	18	148	18	112	130
		PCE Factor							
	Passenger Cars	1	766	102	14	116	14	88	102
	2-Axle Trucks	1.5	117	16	2	18	2	13	16
	3-Axle Trucks	2	76	10	1	12	1	9	10
	4-Axle Trucks	3	278	37	5	42	5	32	37
Total PCE Trip Generation (Industrial Uses)			1,236	165	23	188	23	142	165
Total PCE Trip Generation (Office Uses)			1,084	134	18	152	24	120	144
Total PCE Trip Generation (Combined Industrial + Office)			**2,320**	**299**	**41**	**340**	**48**	**261**	**309**

Notes:
1. Trip generation rates are from the Institute of Transportation Engineers (ITE) Trip Generation (11th Edition).
2. Vehicle type mode share is from the Truck Trip Generation Study, prepared for the City of Fontana, and San Bernardino County, August 2003.
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.



Source: David Evans and Associates Inc.; November 20, 2023.

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Existing Intersection Lane Geometrics

Figure 4.17-2

Project Trip Distribution and Assignment

The distribution of project trips is based on assumed origins of the project's employees and visitors. The directional distribution patterns (east, west, north, and south) are consistent with concentrations of housing and commercial uses (primarily in the Palmdale and Lancaster areas), then assigned to the street system based on the most direct route on major streets. Figure 4.17-3, *Trip Distribution*, shows the directional distribution (percent direction) to the street system.

Opening Year (2024) Background Plus Project Conditions Traffic Analysis

The addition of project traffic to the opening year (2024) background conditions scenario increases the delay at the same four deficient intersections presented in the existing conditions scenario and the opening year (2024) background without project conditions, as shown in Table 4.17-5, *Comparison of LOS between Opening Year (2024) Background Conditions Without and With the Project and Ambient Growth and Cumulative Development*. At the intersection of East Rancho Vista Boulevard (Avenue P) and Sierra Highway, the addition of project traffic changes the AM peak hour level of service from a LOS D to a LOS E.

Table 4.17-5
Comparison of LOS between Opening Year (2024) Background Conditions Without and With the Project and Ambient Growth and Cumulative Development

Intersection	Control Type	Opening Year 2024 Background Conditions Without the Project				Opening Year 2024 Background With Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Blackbird Drive/Lockheed Way	TWSC	16.8	C	15.9	C	16.8	C	15.9	C
2. Blackbird Drive/10th Street East	TWSC	8.7	A	9.2	A	8.8	A	9.3	A
3. East Rancho Vista Boulevard (Avenue P)/ Lockheed Way	TS	113.6	F	93.0	F	132.1	F	120.7	F
4. East Rancho Vista Boulevard (Avenue P)/ 10th Street East	TS	63.3	E	92.6	F	77.5	E	88.1	F
5. Rancho Vista Boulevard/Sierra Highway	TS	49.6	D	163.5	F	70.3	E	176.3	F
6. Rancho Vista Boulevard/SR-14 NB Off Ramp	TS	13	B	13.7	B	13.3	B	13.8	B
7. Rancho Vista Boulevard/10th Street West	TS	64.5	E	102.5	F	65.1	E	107.3	F
8. 10th Street W/SR-14 SB Off Ramp	TS	8.4	A	27.4	C	9	A	28.3	C

Abbreviations: TWSC = Two-way (or side street) stop control, AWSC = All-way stop control, TS = Traffic signal control
Note: Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.

Source: David Evans and Associates Inc.; November 20, 2023.

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Trip Distribution

Figure 4.17-3

Relevant Projects in the City of Palmdale Capital Improvement Program

The City of Palmdale 2022 Five-Year Capital Improvement Plan (CIP), approved by the City Council on June 1, 2022, includes improvement projects that would affect two of the deficient intersections identified in Table 4.17-6.

1) Capital Project (STR-019): Rancho Vista Grade Separation Project. This project entails the construction of an underpass for a six-lane Rancho Vista Boulevard to cross under the railroad tracks and adjacent to Sierra Highway with access ramps connecting Rancho Vista Boulevard and Sierra Highway. This $70,010,000 project is to be funded by unidentified grant funds and is included in the CIP's FY 26-27 scheduled timeframe. Grade separating these two major roadways would eliminate the existing intersection and allow for uncontrolled through movements. Funding this project through grants will be challenging and may need to be supplemented by other sources of funding. This should be considered a long-range capital improvement.
2) Capital Project (STR-026): SR-14 - 10th Street West Widening/Interchange Project. This project entails widening 10th Street West to eight-lanes between Rancho Vista Boulevard and West Avenue O-8 and includes modifying existing traffic signals and modifying and signalizing the SR-14 on and off-ramp. The estimated total cost of this project is $24,223,000 to be funded through Measure R. The CIP includes expenditure of the Measure R funds starting in FY 24-25 and ending in FY 26-27. The widening of 10th Street West and signal modifications at the intersection of Rancho Vista Boulevard and 10th Street West will potentially increase capacity and improve level of service. This should be considered a near-term capital improvement.

SUMMARY AND CONCLUSION OF LEVEL OF SERVICE ANALYSIS

The addition of the proposed project traffic would increase the deficient operations at four study intersections by increasing the delay at three intersections operating at LOS E and LOS F and, in one case, at the intersection of Rancho Vista Boulevard/Sierra Highway, it would change the level of service from a LOS D to a LOS E in the AM peak hour. Because the proposed project does not cause these four intersections to change from conforming with the City's level of service policy to a deficiency, the proposed project would not be responsible for improving the level of service to conform with City policy (LOS D or better) but would be responsible for improvements that offset its increase in delay.

Proposed Measures to Improve Level of Service at Deficient Intersections

Table 4.17-6, *Recommended Measures to Offset Project Impacts*, and Figure 4.17-4, *Location of Recommended Improvements and Related CIP Projects*, summarizes the recommended intersection measures and the location of measures to improve the study area deficient intersection levels of service.

Table 4.17-6
Recommended Measures to Offset Project Impacts

Measure No./Deficient Intersection	Recommended Measures to Offset Project's Impact
T-1: East Rancho Vista Boulevard (Avenue P)/Lockheed Way	Provide protected east-west left turn signal phasing.
T-2: East Rancho Vista Boulevard (Avenue P)/10th Street East	Increase cycle length/reprogram controller.
T-3: Rancho Vista Boulevard/Sierra Highway	Add a second eastbound left turn lane.
T-4: Rancho Vista Boulevard/10th Street West	Implement City CIP Project STR-026 to widen 10th Street West to eight lanes by adding a NB and SB Through Lane.

Source: David Evans and Associates Inc.; November 20, 2023.

Location of Recommended Improvements and Related CIP Projects

Figure 4.17-4

Level of Service Comparison With and Without Recommended Improvements

Table 4.17-7, *Level of Service with Recommended Improvements*, presents the resulting level of service at the four deficient intersections. At Rancho Vista Boulevard/Lockheed Way and Rancho Vista Boulevard/10th Street East, the proposed modifications to traffic signal operations effectively offset the project's impacts without the need to increase capacity through widening. At the intersection of Rancho Vista Boulevard/Sierra Highway, a capacity increase was the only measure to offset the project's impacts. At Rancho Vista Boulevard/10 Street West, additional capacity was required but achieved by a lane conversion without the need to widen any of the approaches.

Table 4.17-7
Level of Service with Recommended Improvements

Intersection	Opening Year 2024 Background + Project With Improvements				Increase in Delay With the Addition of Project Traffic		Reduction in Delay with Improvements	
	AM Peak Hour		PM Peak Hour					
	Delay	LOS	Delay	LOS	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Rancho Vista Boulevard/Lockheed Way	85.6	F	28.2	C	18.5	27.7	(28.0)	(64.8)
Rancho Vista Boulevard/10th Street East	51.2	D	42.5	D	14.2	(4.5)	(12.1)	(50.1)
Rancho Vista Boulevard/Sierra Highway	(a)	(a)	152.0	F	(a)	12.8	(a)	(24.3)
Rancho Vista Boulevard/10th Street	65.	E	84.9	F	0.6	4.8	(0)	(22.4)

Notes:
Shaded cells in the table represent intersection peak hours with LOS deficiencies (LOS E or F).
(a) The mitigated AM peak hour results are not presented. At this intersection, the PM peak hour operates at a worse deficiency than the AM peak hour and represents the worst-case scenario.
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.

PEDESTRIAN CIRCULATION

The City's General Plan Circulation Element Policy Objective C1.9 requires to plan for the development of arterial streetscapes which present an aesthetically pleasing appearance, promote ease of use for pedestrian and nonmotorized as well as vehicular traffic, and provide maximum public safety through design features. *Figure 6.11 - Existing and Planned Bicycle Network Map* of the General Plan Circulation Element identifies an existing bikeway along Sierra Highway and a proposed bikeway along East Rancho Vista Boulevard (Avenue P). Both of these bikeways are not adjacent to the project site. The construction and operation of the proposed project would not conflict with these existing and planned pedestrian facilities. The proposed project would be consistent with Circulation Element Policy in that the project would provide sidewalk and landscape parkways along Lockheed Way, Blackbird Drive, 10th Street East, and Avenue O-12.

PUBLIC TRANSIT PLAN

The Palmdale Transportation Station is located approximately 1.3 miles from the project site. The Transportation Station provides Amtrak Throughway Bus Service, Commuter Bus Service, Flix Bus, and Metrolink Commuter Rail Service to the City of Palmdale and the regional area. Antelope Valley Transit Authority provides local transit service to the City of Palmdale. The closest transit line is located along Sierra Highway approximately 0.50 miles from the project site and along Avenue Q approximately 1.40 miles from the project site. Presently, there are no existing or planned transit facilities that would

conflict with the proposed project. Implementation of the project would not conflict with the Public Transit Plan.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact: A VMT analysis was conducted for the proposed project in accordance with the Los Angeles County Public Works Transportation Impact Analysis (TIA) Guidelines (July 23, 2020). The VMT analysis was conducted using the Southern California Association of Governments (SCAG) RTP/SCS travel demand forecast model and SCAG's land use databases for the years 2020 and 2040. The full VMT analysis report is in Appendix I.

The VMT analysis assumes two industrial buildings totaling approximately 118,200 square feet of building area proposed on Lot 3. To provide a cumulative evaluation of potential impacts to the project area, the VMT analysis also considers approximately 200,000 square feet of industrial building area on nearby Lot 12, Lot 16 and Lot 20 which are also owned by the applicant with the intent that they would to be development in the near future.

The proposed project would generate a mix of automobiles and light to heavy duty trucks. For truck intensive land uses, it is standard practice to convert the estimated number of trucks into "passenger car equivalents (PCEs)". The PCEs were factored into the VMT analysis for the operation of the project.

The project's building floor area was converted to the model's independent variable for non-residential land use (employees) using conversion factors from SCAG's "Employment Density Study Summary Report" (October 31, 2001) in which 200,000 square feet of industrial and 100,000 square feet of office uses convert to 397 employees.

Los Angeles County's criteria for identifying a significant VMT impact under CEQA for office and industrial land uses is:

> *A significant impact would occur if a development project's metric of project-generated VMT[4] per employee is determined to be less than 16.8 percent below the existing VMT per employee for the baseline area in which the project is located.*

The existing VMT per employee for Palmdale's baseline area (North County) is 19.0 VMT/Employee and a development project needs to generate at least 16.8 percent below this baseline metric (or 15.8 VMT/ Employee) for the project to have a less-than-significant impact on the environment.

BASELINE 2020 VMT ANALYSIS

Table 4.17-8, *Year 2020 Baseline Project VMT Per Employee Versus Significance Threshold*, summarizes the year 2020 baseline VMT analysis. The 397 employees of the project are estimated to generate 5,017 vehicle miles of travel per day. Normalizing the VMT by converting it to a per employee basis results in 12.6 VMT/Employee which is less than the North County baseline area's threshold of 15.8 VMT/Employee (16.8 percent less than the existing baseline area metric of 19.0 VMT/Employee).

[4] Employment VMT is the VMT generated by Home-Based Work trip attractions.

Table 4.17-8
Year 2020 Baseline Project VMT Per Employee Versus Significance Threshold

Metric	PBP Industrial Project	North County Baseline Area Significance Threshold
Total Employment	397	-
Home Based Work (HBW) VMT	5,017	-
HBW VMT/Employee	12.6	15.8
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.		

Cumulative 2040 VMT Analysis

Table 4.17-9, *Year 2040 Cumulative Project VMT Per Employee Versus Significance Threshold*, summarizes the year 2040 cumulative VMT analysis. In the future, the project is estimated to generate less VMT than in baseline (2020) conditions. The are many reasons for a future reduction in the project's VMT, one example is an increase in housing near the industrial park where the project is located so employees can reside closer to work. The resulting metric of 10.0 VMT/Employee is substantially lower than the baseline area significance threshold.

Table 4.17-9
Year 2040 Cumulative Project VMT Per Employee Versus Significance Threshold

Metric	PBP Industrial Project	North County Baseline Area Significance Threshold
Total Employment	397	
Home Based Work (HBW) VMT	3,998	
HBW VMT/Employee	10.0	15.8
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; November 20, 2023.		

Conclusion of the VMT Analysis

The project's metric of VMT/Employee for office and industrial uses derived by extracting the project's Home-Based Work (HBW) trips from the SCAG regional travel demand forecasting model for 2020 baseline and 2040 cumulative conditions results in less VMT/Employee than the North County area baseline threshold of 15.8 VMT/Employee. The analysis concludes, therefore, that the proposed project will create a less than significant transportation impact on the environment.

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

Less Than Significant Impact: Implementation of the proposed project would not substantially increase hazards due to a geometric design feature and potential impacts would be less than significant. The roadway improvements proposed by the project have been designed in accordance with the City of Palmdale roadway design standards and requirements provided in the City's General Plan Circulation Element. Compliance with these standards would ensure that the proposed roadway segments in the project area would provide a safe means of travel for motorists and pedestrians and would provide adequate truck and automobile access, as well as meeting emergency access

requirements. With compliance with the General Plan roadway design standards, potential traffic hazards would be avoided.

d) Result in inadequate emergency access?

Less Than Significant Impact: The proposed project would involve the construction of new roadway segments, driveways, and access ways. The project would be required to design, construct, and maintain roadway segments, driveways, and access ways in compliance with local, regional, and state requirements to ensure adequate emergency access is provided. Compliance with local, regional, and state requirements related to emergency access and implementation of the project's emergency evacuation procedures and protocols would ensure that the proposed project would have adequate emergency access.

During construction, there could be the potential for temporary lane closures to allow for utility connections or for mobilization and demobilization of heavy construction equipment to and from the project site. As part of the construction coordination for the project, the City of Palmdale would determine the need for traffic control measures to maintain adequate emergency access. Such measures could include detour routes and signage and/or flag people to direct traffic. With compliance with the City of Palmdale traffic control requirements, potential emergency access impacts would be less than significant.

MITIGATION MEASURES

T-1: At Rancho Vista Boulevard/Lockheed Way, provide protected east-west left turn signal phasing.

T-2: At Rancho Vista Boulevard/10th Street East, increase cycle length/reprogram controller.

T-3: At Rancho Vista Boulevard/Sierra Highway, add a second eastbound left turn lane.

T-4: At Rancho Vista Boulevard/10th Street West, convert the third (outside) westbound through lane to a right turn lane, resulting in dual westbound right turn lanes.

4.18 Tribal Cultural Resources

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

PROJECT IMPACTS AND MITIGATION MEASURES

Because this project is a CEQA action, it requires an offer of tribal consultation under Assembly Bill [AB] 52 (Public Resources Code Section 21080.3.1).

Regulatory Framework

AB 52 TRIBAL CONSULTATIONS

This project is subject to the requirements of Assembly Bill (AB) 52. AB 52 is applicable to projects that have filed a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) or notice of a Mitigated Negative Declaration (MND) or Negative Declaration (ND) on or after July 1, 2015. The law requires lead agencies to initiate consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project and have requested such consultation, prior to determining the type of CEQA documentation that is applicable to the project (i.e., EIR, MND, ND). Significant impacts to "tribal cultural resources" are considered significant impacts to the environment.

For "tribal cultural resources," PRC §21074, enacted and codified as part of a 2014 amendment to CEQA through Assembly Bill 52, provides the statutory definition as follows:

"Tribal cultural resources" are either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

    B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

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

To determine if such resources exist, under AB 52 (PRC §21080.3.1) lead agencies must consult with tribes that request consultation and must make a reasonable and good faith effort to mitigate the impacts of a development on such resources to a less than significant level. AB 52 allows tribes 30 days after receiving notification to request consultation and the lead agency must then initiate consultation within 30 days of the request by tribes.

The City of Palmdale is undertaking AB 52 consultation with interested tribes.

ETHNOGRAPHY

The primary objective of the cultural setting section is to present a synthesized account of the Native American tribes who potentially occupied the project site during the Ethnohistoric period. The Serrano, who are related to the Shoshonean groups that migrated into southern California roughly two thousand years ago. The focus of this section is to review the adaptive and religious practices of the tribes and the potential implications of those features for occupation or use of the project site.

Spanish explorers to the mountainous areas east of Los Angeles provided the name "Serrano" (meaning 'mountaineer' or 'highlander') to the indigenous people they encountered in this region of the Transverse Ranges. The Serrano are speakers of the Takic language sub-family of the Uto-Aztecan family. The Takic ("person") sub-family includes several Shoshonean groups in California, and was formerly known as southern California Shoshonean (Kroeber 1925:574). Kroeber organized groups of the Southern California Shoshonean branch into three linguistic divisions, and called them Serrano, Gabrielino, and Luiseño-Cahuilla. The Serrano division included the Kitanemuk, Alliklik, Serrano, and Vanyume groups; the Gabrielino division included the Fernandeño, Gabrielino, and San Nicoleño groups; and the Luiseño-Cahuilla division included the Juaneño, Luiseño, Cupeño, Pass Cahuilla, Mountain Cahuilla, and Desert Cahuilla groups (Kroeber 1925:577). Kroeber was convinced that these Shoshonean groups migrated to their current locations from the Great Basin area, thereby splitting peoples of the Yuman languages.

Aside from the close linguistic affiliation of the Cahuilla, Luiseño, and Serrano tribes, these tribes traditionally shared numerous other remarkably similar traits. Most ethnographies on these tribes, for example, provide numerous references as to how certain characteristics of one tribe were virtually identical to those of one or more of the others. Many of the shared cultural traits were no doubt

attributable to the observation that these tribes were essentially parts of the original Shoshonean cultural and linguistic population that diffused or migrated into southern California as recently as 2,000 years ago. Other shared characteristics, particularly those of a subsistence nature, are understandable in view of these tribes' adaptation to similar environments.

As indicated above, the Vanyume, which was a related group to the Serrano, lived north of the mountainous region for which the Serrano name is derived. The Vanyume occupied a significant portion of the western Mojave Desert from the San Bernardino Mountains east of the Cajon Pass northward and beyond the Mojave River. The eastern boundary extended to nearly the Providence Mountains (Bean and Smith 1978). It should also be noted that some accounts indicate that villages of the Serrano extended into this area as well reaffirming the relationship between the Vanyume and the Serrano proper. However, the Vanyume remain a relatively poorly documented group in the archives. Since the APE is situated at the edge of the Mojave Desert, the following is based on the known information of the Serrano interspersed with Vanyume data whenever possible.

The Serrano in addition to the Vanyume, have historically been divided into a third subgroup, the Kitanemuk (western edge of Mojave desert) all of which were socially organized by moieties, clans and lineages (Bean and Smith 1978). Clans were organized exogamously and were associated with either the tukŵutam (Wildcat) and wahiiam (Coyote) moiety. Descent was traced patrilineally, although women retained their own lineage names after marriage. Today, most Serrano live on the San Manuel Reservation and the Morongo Reservation, which is also home to many Cahuilla.

Regarding subsistence, a review of the ethnographic summaries shows that with few major exceptions, the Serrano hunter-gatherers exploited animal and plant resources in very similar ways. In the mountainous regions, the Serrano maintained a dependence on acorns as a major plant food as was the reliance on numerous other wild plant foods. Similarly, while hunters targeted large game, they relied heavily on small game and birds, and fished local streams. Principal game included deer, mountain sheep, antelope, rabbits, birds, and other small mammals. The primary staples depended on the location of each hamlet, but each supplemented their diets with various other roots, bulbs, and shoots. Early travelers like Jedediah Smith observed that the Vanyume processed acorns and pine nuts to make an edible "mush". The presence of acorns and pine nuts suggest that an active trade network or gathering area was present to have such staples along the Mojave River at the time of his crossing in 1826. Technologically, they were known to utilize shell, wood, bone, stone, and plant fibers to make a variety of implements (Bean and Smith 1978). The Serrano were not known to rely upon agriculture, although some arguments have been forwarded that tribes may have manipulated the environment to encourage the growth of oaks, palm trees, grasses, and other plants.

The Serrano social and political organization emphasized moiety systems comprised of clans and patrilineages. Politically, this organization was not carried out at the tribal level, but rather, at the level of clans and lineages. Villages were inevitably led by lineage leaders who inherited their positions from their fathers, and by ceremonial leaders who also inherited their positions. The Serrano also communicated regularly with the Cahuilla and Luiseño which as expressed above contributed to their cultural similarities. All three tribes are known to have intermarried and all three engaged in the economic exchange of both necessities and luxury items.

Finally, the religious beliefs and practices of the Serrano were markedly similar to that of the Luiseno and Cahuilla. The spirit world of the Luiseño, for example, centered around the god Wiyot, his children,

and his death. This creation myth varied in its details from clan to clan and from place to place, but the same basic story is known for the Serrano and Cahuilla.

SACRED LANDS RECORD SEARCH

Tierra Environmental Services submitted a letter to the Native American Heritage Commission (NAHC) on October 8, 2020, requesting a review of their Sacred Lands File as well as a list of Native American representatives to be contacted for information regarding resources and to update interested parties. The response received from the NAHC on October 12, 2020, indicated that no sensitive resources or traditional cultural places were identified within the project boundaries. Tierra contacted each of the nine Native American representatives provided by the NAHC with a request for additional input and to inform them of the project. A second letter was submitted to the NAHC on May 30, 2022, requesting any updated information. No response has been received to date. New letters were sent to Native American representations using the October 12, 2020, NAHC mailing list. No new responses have been received to date.

The Fernandeño Tataviam Band of Mission Indians and the San Manuel Band of Mission Indians have requested AB 52 consultation with the City of Palmdale.

PROJECT IMPACTS

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

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

Less Than Significant Impact With Mitigation Incorporated: Implementation of the proposed project would not cause a substantial adverse change to a listed or eligible for listing resource identified in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). The cultural resources search indicated that 31 cultural resources or historic properties have been previously identified within a one-mile radius of the project area. However, because there are no previously recorded resources located within the project site, absence of intact cultural resources within the project area, and the anticipation that potential subsurface components would not hold sufficient integrity, an archaeological monitor would not be recommended for the project.

Because historic resources are known to occur in the region, there might be potential that unknown cultural resources could be encountered during excavation activities. Mitigation Measure CR-1, stated within Section 4.5, requires the halting of excavation activities in the event unknown historic resources are encountered and CR-2, stated within Section 4.5, requires Cultural Resources Worker Environmental Awareness Program (WEAP) training. With implementation of Mitigation Measures CR-1 and CR-2, potential impacts to unknown historic resources would be less than significant.

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

Less Than Significant Impact With Mitigation Incorporated: Implementation of the proposed project would not cause a substantial adverse change to a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. As previously indicated, a record search and pedestrian survey conducted on the project site did not identify any known archaeological resources on the project site. A Sacred Lands record search was requested from the California Native American Heritage Commission (NAHC) on October 8, 2020. The response received from the NAHC on October 12, 2020, indicated that no sensitive resources or traditional cultural places were identified within the project boundaries. The NAHC provided a list of nine Native American tribes who may also have knowledge of cultural resources in the project area. All nine Native American representatives provided by the NAHC were contacted with a request for additional input and to inform them of the project. No new responses have been received to date. Although the project site is not located within a general area of sensitivity for prehistorical archaeology, the grading activities associated with construction of the proposed project could encounter native soils and could have the potential to encounter unknown archaeological resources. To avoid adverse impacts to archaeological resources that could be encountered during construction it is recommended, if cultural resources are discovered during grading, work must be halted in the vicinity of the find and a qualified archaeologist be retained to identify and evaluate the cultural material. In addition, tribal cultural monitoring would occur. With implementation of Mitigation Measures CR-1, CR-2, CR-3, CR-4, TCR-1, and TCR-2, potential impacts to unknown archaeological resources would be less than significant.

MITIGATION MEASURES

Mitigation Measures CR-1 through CR-4, stated within Section 4.5, are required.

TCR-1: The Fernandeño Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN) Cultural Resources Department shall be contacted, as detailed in CR-1, of any pre-contact and/or post contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regard to the significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with the consulting Tribes, and all subsequent finds shall be subject to this Plan. This Plan shall allow for two rotating monitors, one representing FTBMI and another to represent YSMN, to be present that represents the Tribes for the remainder of the project, should the Tribes elect to place a monitor onsite.

TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to the consulting Tribes. The Lead Agency and/or applicant shall, in good faith, consult with the Tribes throughout the construction of the project.

4.19 Utilities and Service Systems

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

PROJECT IMPACTS AND MITIGATION MEASURES

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact: Implementation of the proposed project would require adding onsite utilities since the project site is currently undeveloped, including both wet utilities (i.e., water, wastewater) and dry utilities (i.e., electrical, gas, communication) and storm drain facilities. The utility systems would connect into existing utilities and would not require substantial offsite construction activities. Construction connections to offsite utility systems would involve some local minor trenching. Each utility service provider would be coordinated with on the design and installation to ensure that utility service system would comply with construction standards and that adverse impacts to the environment are avoided. With coordination with the utility providers, potential impacts associated with construction of utility systems would be less than significant.

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

Less Than Significant Impact: The City of Palmdale obtains its water from Palmdale Water District and Los Angeles County Waterworks District No.40, which purchases water from Antelope Valley-East Kern Water Agency. The Los Angeles County Waterworks District (LACWD) would provide water service to the project. The City waters supplies consist of a mix of groundwater, surface water, imported water supplies and recycled water.

Water Agencies, such as the LACWD, are required to prepare and update their Urban Water Management Plans (UWMP) every five years. The UWMP identifies long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs. The UWMP future water demands are based on regional growth projections from the Southern California Association of Governments (SCAG) 2020 Connect SoCal forecast, which are based on the City's General Plan. The UWMP includes a water supply and demand assessment that compares the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting multiple consecutive water year.

LACWD's most recent UWMP was adopted 2020. Below is a comparison between the supply and demand within the service area for projected years between 2025 and 2045 under a normal water year, single dry year, and multiple dry years; refer to Table 4.19-1, *Normal Year Supply and Demand Comparison*, Table 4.19-2, *Single Dry Year Supply and Demand Comparison*, and Table 4.19-3, *Multiple Dry Years Supply and Demand* Comparison.

Table 4.19-1
Normal Year Supply and Demand Comparison

Unit	2025	2030	2035	2040	2045
Supply Totals	83,086	81,724	80,324	79,024	79,024
Demand Totals	55,164	58,002	61,102	64,402	67,602
Difference	**27,922**	**23,722**	**19,222**	**14,622**	**80,314**
Source: Los Angeles County Waterworks District, Urban Water Management Plan; Adopted October 2021.					

Table 4.19-2
Single Dry Year Supply and Demand Comparison

Unit	2025	2030	2035	2040	2045
Supply Totals	55,164	58,002	61,102	64,402	67,602
Demand Totals	55,164	58,002	61,102	64,402	67,602
Difference	**0**	**0**	**0**	**0**	**0**
Source: Los Angeles County Waterworks District, Urban Water Management Plan; Adopted October 2021.					

Table 4.19-3
Multiple Dry Years Supply and Demand Comparison

Unit	2025	2030	2035	2040	2045
First Year					
Supply Totals	55,164	58,002	61,102	64,402	67,602
Demand Tools	55,164	58,002	61,102	64,402	67,602
Difference	0	0	0	0	0
Second Year					
Supply Totals	59,776	59,914	61,102	64,402	67,602
Demand Tools	55,164	58,002	61,102	64,402	67,602
Difference	4,612	1,912	0	0	0
Third Year					
Supply Totals	55,164	58,002	61,102	64,402	67,602
Demand Tools	55,164	58,002	61,102	64,402	67,602
Difference	0	0	0	0	0
Fourth Year					
Supply Totals	55,164	58,002	61,102	64,402	67,602
Demand Tools	55,164	58,002	61,102	64,402	67,602
Difference	0	0	0	0	0
Fifth Year					
Supply Totals	55,164	58,002	61,102	64,402	67,602
Demand Tools	55,164	58,002	61,102	64,402	67,602
Difference	0	0	0	0	0

Source: Los Angeles County Waterworks District, Urban Water Management Plan; Adopted October 2021.

Tables 4.19-1, 4.19-2 and 4.19-3 show that LACWD would have sufficient supplies to meet demands from 2025 to 2045 under normal year, single dry year, and multiple-dry year conditions. The proposed project would be consistent with the existing General Plan IND (Industrial) designation and HI (Heavy Industrial) zoning. As a result, the water demands for the proposed project are accounted for in the most recent UWMP water demand assumptions and potential impacts would be less than significant.

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

Less Than Significant Impact: Wastewater service for the project would be provided by the Palmdale Utilities Services Division (PUSD or Division). PUSD manages wastewater collection for the City's entire service area, which encompasses approximately 105 square miles. Unincorporated areas surrounding Palmdale fall under Los Angeles County standards. The City's sewer system includes 396 miles of pipeline and 8,441 manholes, most of which are under 30 years in structure age. Most of the collected wastewater flows to the Palmdale Water Reclamation Plant (PWRP), which is managed in Los Angeles County Sanitation District #20 and can reclaim up to 12 mgd. A portion of the wastewater is sent to the Lancaster Water Reclamation Plant, located approximately 16 miles north of the City (City of Palmdale, 2014).

According to the City's General Plan EIR, the majority of collected wastewater flows to the Palmdale Water Reclamation Plant which is managed by the Los Angeles County Sanitation District. The Palmdale Water Reclamation Plant provides primary, secondary, and tertiary water treatment with a design capacity of 12 mgd and currently processes an average flow of 8.3 mgd. Treatment includes preliminary mechanically cleaned bar screens, aerated grit chambers, and settling tanks; secondary anaerobic digester, air compressors, and clarifier tanks; and tertiary chemical treatments with aqueous ammonia, sodium hypochlorite, and chlorine contact tanks. The fully treated water is then reused in municipal and agricultural settings or stored in recycled water reservoirs (Los Angeles County 2021). The Palmdale Water Reclamation Plant 2025 Facilities Plan proposes wastewater treatment upgrades to the Palmdale Water Reclamation Plan. The recommended project includes providing tertiary treatment with disinfection to accommodate 22.4 million gallons per day. Effluent management facilities will include up to approximately 700 acres of storage reservoirs and 5,140 acres of agricultural reuse, while maximizing municipal reuse.

According to Los Angeles County Sanitation District based on wastewater demand factor of 40 gallons per day per thousand square feet of area, the proposed project would have a daily wastewater demand of 7,507 2000 gallons per day. Table 4.19-4, *Wastewater Generation by Development*, from the City's General Plan EIR shows the total net new projected wastewater generation by new industrial development in the City of Palmdale.

Table 4.19-4
Wastewater Generation by Development

Demand	Solid Waste Generation per Day (62.5 lbs/ 1,000 sf)	Net New Wastewater (gpd)
Industrial - 80	10,046,865 square feet	803,749

The wastewater demands for the proposed project would represent 0.029 percent of the planned industrial growth in the City and 0.009% of the projected wastewater demand. As indicated above, the Palmdale Water Reclamation Plant currently has about four mgd of current available capacity. The proposed square footage of the proposed project and associated wastewater demands are accounted for in the growth projections and Palmdale Water Reclamation Plant available treatment capacity. Additionally, the proposed project would be required to pay industrial wastewater surcharge fees which would be used for the maintenance and expansion of existing treatment facilities. Potential impacts to the Palmdale Reclamation Plant associated with the operation of the proposed project would be less than significant.

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

Less Than Significant Impact: The City of Palmdale contracts with Waste Management to provide complete residential and commercial trash, organic waste processing, and recycling services, including residential curbside trash, recycling and yard waste collection, pickup of bulky items, and electronic waste pickup, for all single and multifamily homes, as well as businesses (City of Palmdale 2021a).City waste haulers send all residential and commercial solid waste to the Antelope Valley Recycling and

Disposal Facility, located on the west side of the City approximately one mile from the Antelope Valley Freeway.

According to the California Department of Resources Recycling and Recovery's (CalRecycle's) Disposal Reporting System, in the fourth quarter of 2019, solid waste generated in Palmdale was disposed of at eight different landfills, recycling centers, and waste recovery and conversion facilities, as summarized in Table 4.19-5, *City Service Landfill Capacity*, below.

Table 4.19-5
City Service Landfill Capacity

Solid Waste Facility	Palmdale Tonnage	Total Facility Capacity (cubic yards)	Remaining Capacity (cubic yards)	Percent Capacity Remaining	Ceased Operation Year
Antelope Valley Land Fill	26,416	30,200,000	17,911,225	59%	2044
Lancaster Landfill	866.77	27,700,000	14,514,648	52%	2044
McKittrick Treatment Site	680.57	5,474,900	769,790	14%	2059
Semi Valley Landfill	261.37	119,600,000	82,954,873	69%	2063
El Sobrante landfill	41.94	209,910,000	143,977,170	69%	2051
Sunshine Canyon Landfill	11.59	140,900,000	77,900,000	55%	2037
Chiquita Canyon Landfill	4.70	110,366,000	60,408,000	55%	2047
Victorville Landfill	0.35	93,400,000	79,400,000	85%	2047

Based on solid waste demand factors from Cal Recycle of 62.5 pounds per 1,000 square feet of industrial area, the proposed project would generate 62,500 pounds of solid waste per day. This amount would be less than one percent of the available capacity at each landfill and less the .00013 of the total overall available capacity of all landfills combined. The amount of solid waste generated from the operation of the project would not exceed the capacity of local facilities or exceed State and local standards; therefore, potential solid waste disposal impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact: Implementation of the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The proposed project would produce solid waste associated with the construction stages as well as during operation. The proposed project would be required to comply with state and local statutes and regulations related to solid waste. Applicable regulations include the California Integrated Waste Management Act under State Assembly Bill 939 (AB 939) in 1989. AB 939 mandates that all cities reduce annual waste per capita by 50 percent. Palmdale is working toward compliance with all state recycling requirements, including legislation that imposes Mandatory Commercial Recycling on all businesses that generate at least four cubic yards of trash per week. The City also complies with AB 1826, California's Mandatory Commercial Organics Recycling law, which requires businesses to recycle their organic waste. Organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled waste that is mixed with food waste. Through the City, Waste Management offers organic waste recycling services for both businesses. The project would be required to comply with solid waste reduction measures. Implementation of the proposed project

would not conflict with the ability to comply with these regulations and potential impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

4.20 Wildfire

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

PROJECT IMPACTS AND MITIGATION MEASURES

A wildland fire is a non-structural fire that occurs in vegetative fuels. Wildland fires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. The potential for wildland fires represents a hazard where development is adjacent to open space or within proximity to wildland fuels or designated Fire Hazard Safety Zones. A State Responsibility Area (SRA), under Title 14 of the Natural Resources of the California Code of Regulations (CCR), the California Department of Forestry and Fire Protection (CAL FIRE) has the primary responsibility for implementing wildfire planning and protection for State Responsibility Area (SRA) lands. CAL FIRE develops fire safe regulations and issues fire safe clearances for land within the SRA. According to the California Department of Forestry and Fire Protection, the project site is not within a High Fire Hazard Area or State Responsibility Area; refer to Figure 4.20-1, *Fire Hazard Severity Zones*.

PROJECT IMPACTS

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

No Impact: Implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The Los Angeles County Sheriff's Department and Los Angeles County Fire Department would oversee evacuating the project in the event of a fire threat. These evacuations would be decided within the Incident Command structure in consultation with the fire department, law enforcement, public works, and local government liaisons. In the event of emergency, residents would be directed to specific evacuation routes to avoid conflicts with emergency response plans. Therefore, the proposed project would not significantly impair an adopted

emergency response plan or emergency evacuation plan in or near state responsibility areas or lands classified as very high fire hazard severity zones.

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

No Impact: Topography influences the movement of air and the direction of a fire course. Wind events also magnify the risks of wildfire and would have the potential to expose inhabitants to elevated pollutant concentrations. According to the California Department of Forestry and Fire Protection, the project site is not identified as a High Fire Hazard Area or near a State Responsibility Area. Additionally, the project site is not contiguous to wildland slope areas that could act as conduit for wildland fire. Additionally, the proposed project would have surrounding roadways and driveways which would also act as fire breaks. Therefore, the proposed project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire in or near State Responsibility Areas or lands classified as very high fire hazard severity zones.

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

No Impact: The proposed project would not 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. According to the California Department of Forestry and Fire Protection, the project site is not identified as a High Fire Hazard Area or near a State Responsibility Area. The proposed project would not require the construction of any infrastructure that would increase fire risk. The project includes the construction of water infrastructure and other utility improvements that would aid in fire suppression. The proposed project does not include any changes to existing roadways that would exacerbate fire risk. The proposed project would not require the installation or maintenance of associated infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Therefore, the proposed project would not exacerbate fire risk or result in temporary or ongoing impacts to the environment in or near state responsibility areas or lands classified as very high fire hazard severity zones.

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

No Impact: Implementation of the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Landslides, including mud flows and debris flows can be triggered by erosion and downslope runoff caused by rain following a fire. According to the California Department of Forestry and Fire Protection, the project site is not identified as a High Fire Hazard Area or near a State Responsibility Area. The proposed project would not increase the risk for wildland fire impacts that expose people or structures to significant risks, including downslope or downstream

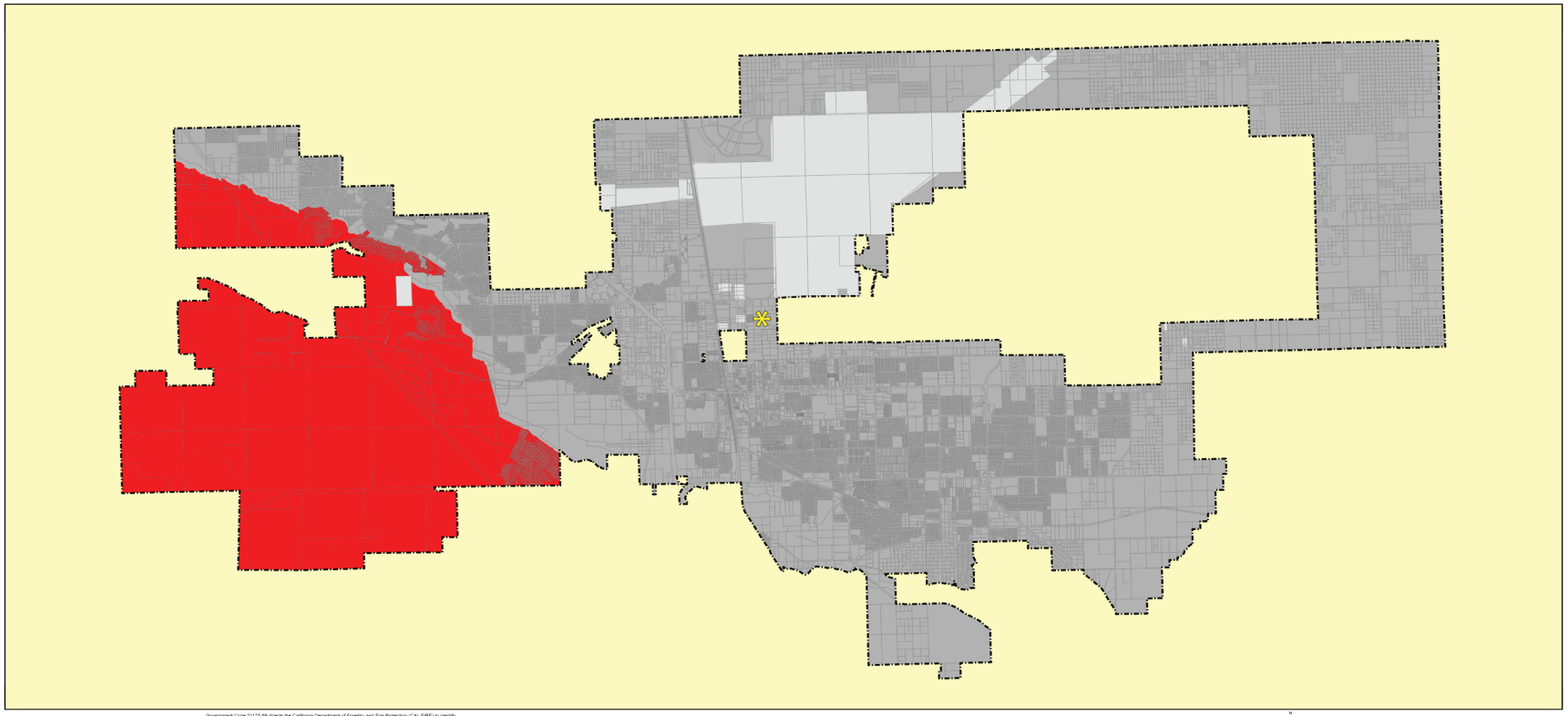
flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes in or near State Responsibility Areas or lands classified as very high fire hazard severity zones.

MITIGATION MEASURES

No mitigation measures are required.

Palmdale

Very High Fire Hazard Severity Zones in LRA
As Recommended by CAL FIRE



Fire Hazard Severity Zones

Local Responsibility Area	State or Federal Responsibility Areas
VHFHSZ	VHFHSZ
Non-VHFHSZ	Non-VHFHSZ

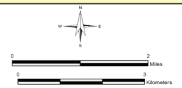
City Boundary
Parcels
County Boundary

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on parameters that influence fire behavior, fire likelihood and nature of vegetation fire exposure (including firebrands) to buildings. Details on the project and specific modeling methodology can be found at http://frap.cdf.ca.gov/projects/hazard/methods.htm. Local Responsibility Area VHFHSZ maps were initially developed in the mid-1990s and are now being updated based on improved science, mapping techniques, and data.

In late 2005 to be effective in 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VH FHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated very high fire hazard severity zones will be used by building officials for new building permits in LRA. The updated zones will also be used to identify property whose owners must comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This specific map is based on a geographic information system dataset that depicts final CAL FIRE recommendations for Very High FHSZs within the local jurisdiction. The process of finalizing these boundaries involved an extensive local review process, the details of which are available at http://frap.cdf.ca.gov/projects/hazard/shpwtl/ (click on "Continue as guest without logging in"). Local government has 120 days to designate, by ordinance, very high fire hazard severity zones within its jurisdiction after receiving the recommendation. Local government can add additional VHFHSZs. There is no requirement for local government to report their final action to CAL FIRE when the recommended zones are adopted. Consequently, users are directed to the appropriate local entity (county, city, fire department, or Fire Protection District) to determine the status of the local fire hazard severity zone ordinance.

This map was developed using data products such as parcel and city boundaries provided by local government agencies. In certain cases, this includes copyrighted geographic information. The maps are for display purposes only - questions and requests related to parcel or city boundary data should be directed to the appropriate local government entity.



California Teale Albers, NAD 1983
Scale 1: 45,000
at 36" x 36"
September 2011

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Obtain FRAP maps, data, metadata and publications on the Internet at http://frap.cdf.ca.gov
For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Jerry Brown, Governor,
State of California
John Laird, Secretary for Resources,
The Natural Resources Agency
Ken Pimlott, Director,
Department of Forestry and Fire Protection

MAP ID: Palmdale

DATA SOURCES
CAL FIRE Fire Hazard Severity Zones (FHSZL06_1)
CAL FIRE Very High Fire Hazard Severity Zones in LRA - Los Angeles (c19fhszl06_5)

Source: California Department of Forestry and Fire Protection (CAL FIRE); July 7, 2022.
✻ - approximate Project Location

Fire Hazard Severity Zones

Figure 4.20-1

4.21 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. 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. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

PROJECT IMPACTS AND MITIGATION MEASURES

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

Less Than Significant Impact With Mitigation Incorporated: Sensitive plant species include federally or state listed as threatened or endangered species and those species listed on CNPS's rare and endangered plant inventory. Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions. The majority of the sensitive plant species have a low potential to occur onsite, with the exception of western Joshua tree.

The proposed project would impact 58 living trunks. Mitigation Measure BIO-1 will be implemented for consistency with the WJTCA, which includes payment into the in-lieu fee program set forth in Section 1927.3 (a)(3) of the WJTCA. One dead trunk would be authorized through the permit requirements set forth in Section 1927.4 (a)(3)(A-D) of the WJTCA.

No special status wildlife species were observed within the project site during the 2021 and 2022 surveys. However, during the January 2023 survey, the San Diego black-tailed jackrabbit was observed.

Three special status species were considered to have at least a moderate potential to occur within the project site including Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and Southern grasshopper mouse (*Onychomys torridus ramona*).

All other special status wildlife species analyzed exhibit a low potential to occur within the project site, and therefore potential impacts were identified to be less than significant. To avoid impact Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and southern grasshopper mouse (*Onychomys torridus ramona*). Mitigation Measure BIO-3 is recommended which requires any vegetation removal activities to occur outside of nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) and a preconstruction survey for sensitive species to be conducted by a qualified biologist within 30 days prior to any construction activities and passive or active relocation to sensitive species are present. With implementation of Mitigation Measure BIO-3, impacts to sensitive plant and wildlife species would be less than significant.

No jurisdictional waters or wetlands regulated under the CWA occur on the project site; therefore, no impacts would occur.

The site is not within a significant regional wildlife movement corridor and is not considered to play a role in regional wildlife movement. Therefore, the project would not cause wildlife movement corridors to drop below self-sustaining levels.

The *Cultural Resource Report* (Appendix C) prepared for the project identified no known cultural resources on the project site. The regional area is reported to contain known recorded cultural resource sites. Therefore, there would be some potential that unknown cultural resources could exist on the project site. Mitigation Measures CR-1, CR-2, CR-3 and CR-4 require the halting of construction activity if unknown cultural resources or human remains are encountered and requires a construction education program to inform construction personnel on characteristics of cultural resources. With implementation of Mitigation Measures CR-1, CR-2, CR-3 and CR-4, potential impacts to unknown cultural resources would be avoided and the project would not eliminate important examples of California history or prehistory.

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

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

Less Than Significant Impact With Mitigation Incorporated: A cumulative impact may be significant if a project's incremental effect, though individually limited, is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.

The cumulative analysis evaluates the construction and operation of two industrial buildings, totaling approximately 118,200 square feet of area divided into 16 individual units, and associated improvements including landscaping, sidewalks, utility connections, pavement of parking areas and drive aisles on approximately six acres of land (Lot 3) and approximately 200,000 square feet of building area on Lots 12, 16, and 20 which are also owned by the applicant with the intent that they would to be development in the near future. Additionally, the City of Palmdale identified one development project near the study area to include in the study as background traffic. This project is a 1,050,000-square-foot ecommerce fulfillment center warehouse building footprint that includes about 20,000 square feet of interior office/employee support space. The 113.69-acre site is located on the southeast corner of West Avenue M/Columbia Way and 10th Street West.

The analysis provided in Section 4.0, *Environmental Analysis*, identifies that no impacts would occur to agriculture and forestry resources, mineral resources, or wildland fire. Therefore, the proposed project would not contribute considerably to cumulative impacts to these environmental resource issues. Impacts related to aesthetics, light and glare, air quality construction emissions, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise and tribal resources population and housing, public services, recreation, utilities, and service systems were determined to be less than significant or potentially significant and would require mitigation measures to reduce impacts to a less than significant level. Therefore, the proposed project could potentially contribute to significant cumulative impacts in these environmental issue areas. These environmental issue areas are discussed in further detail below.

AESTHETICS

Implementation of the project would not impact scenic resources, obstruct, modify, or adversely impact views of scenic resources along a State Scenic Highway. Therefore, the proposed project would not contribute considerably to cumulative loss of scenic resources or scenic vistas. The proposed project would be consistent with the existing General Plan Heavy Industrial Land Use Designation and Heavy Industrial Zoning and site development standards. The proposed project would be subject to Site Plan Review from the City of Palmdale, which would ensure that project building layout, size, shape, scale, mass, height, architectural design, architectural components, materials, colors, landscaping, and other aspects of the physical plan for the development project are compatible with neighboring developments, which would reduce potential aesthetic impacts to less than significant. Therefore, the proposed project would not be contributing to cumulative aesthetic impacts.

Cumulative projects identified would be reviewed and evaluated for potential aesthetic impacts and would be required to comply with applicable design site development and design standards to minimize potential aesthetic impacts and light and glare impacts. Through Site Plan Review and with compliance with applicable design site development and design standards, potential aesthetic and light and glare impacts would be minimized and when considered with related cumulative development projects, the proposed project would not contribute considerably to cumulative significant aesthetic impacts.

AGRICULTURE

Implementation of the proposed project would not impact prime farmland, farmland of Statewide Importance, or displace existing agriculture activities. Therefore, the project would not contribute considerably to the loss of existing agriculture lands.

Related cumulative development projects identified would be evaluated for potential impacts to prime farmland, farmland of Statewide Importance, and/or would displace existing agriculture activities. No potential impacts to agricultural lands associated with the proposed project would occur. Therefore, the proposed project, when considered with the related cumulative projects, would not contribute considerably to a cumulatively significant agriculture impact.

AIR QUALITY

Operational Impacts

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values would not be considered by AVAQMD to be a substantial source of air pollution and would not add significantly to a cumulative impact. Operation of the project would not result in emissions excess of the AVAQMD regional emissions thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant. The project's operational emissions would not exceed AVAQMD regional thresholds and would be consistent with the AVAQMD adopted Ozone Attainment Plan in 2004. Therefore, the project would not be significantly cumulatively considerable, and a less than significant impact would occur in this regard.

Construction Impacts

The context for assessing cumulative air impacts from short-term construction activities includes quantifying emissions and comparing the emissions to the applicable AVAQMD screening thresholds. As discussed in Section 4.3, *Air Quality*, the proposed project's construction emissions would be below AVAQMD thresholds. Further, the proposed project would be required to comply with AVAQMD Fugitive Dust Rule 403, which would require dust suppression techniques to prevent fugitive dust from creating a nuisance offsite. To ensure compliance with the fugitive dust control measures and to reduce potential exposure of sensitive receptors to substantial pollution concentrations, Mitigation Measure AQ-1 is recommended which requires a Dust Control Plan to be submitted prior to the start of any construction activity. Additionally, Mitigation Measures AQ-2 to AQ-6 are recommended to reduce construction emissions. With implementation of Mitigation Measures AQ-1 to AQ-6, Fugitive short-term construction air emissions would be less than significant.

During construction, the project would have the potential to generate DPM from off-road diesel equipment and trucks. Mitigation Measure AQ-2 is recommended to help ensure that the potential health risk impacts associated with DPM during construction is reduced to the maximum extent by requiring the use of electric powered equipment in lieu of diesel equipment where feasible. With implementation of Mitigation Measure AQ-2, operational-related TAC's impacts would be less than significant. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Related cumulative development projects would be reviewed and evaluated for construction related air quality impacts and would be required to implement AVAQMD Rules to minimize construction

related air quality impacts. Potential construction air quality impacts associated with the proposed project would be less than significant, the proposed project, when considered with related cumulative projects, would not contribute considerably to cumulatively significant construction air quality impacts.

BIOLOGICAL RESOURCES

Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions. The majority of the sensitive plant species have a low potential to occur onsite, with the exception of western Joshua tree. Due to the location of the western Joshua trees in the project site being relatively spread-out and unavoidable, direct impacts are expected to occur as a result of project implementation and mitigation measures are recommended. The vast majority of western Joshua trees are not good candidates for relocation purposes; therefore, compensatory mitigation would be required. With implementation of Mitigation Measure BIO-1, the project would not contribute considerably to significant cumulative impacts to western Joshua Trees.

The proposed project would not contribute considerably to significant impacts to nesting birds with the implementation of Mitigation Measure BIO-2.

No special status wildlife species were observed within the project site. To avoid impacts to the Bendire's thrasher (*Toxostoma bendirei*), LeConte's thrasher, and southern grasshopper mouse (*Onychomys torridus ramona*) that have potential to occur onsite, Mitigation Measure BIO-3 requires a pre-construction survey during the nesting season 30 days prior to any construction activities by a qualified biologist to confirm no impacts to nesting birds. With implementation of Mitigation Measure BIO-3, impacts to sensitive wildlife species would be less than significant and the project would not contribute considerably to significant impacts to sensitive wildlife species.

The site is not within a significant regional wildlife movement corridor and is not considered to play a role in regional wildlife movement. Therefore, the project would not contribute considerably to the loss of wildlife movement corridors.

The project site does not support biological resources protected under any local policies or ordinances.

Related cumulative projects would be required to comply with state and federal laws that provide for the protection of biological resources and where needed would need to implement measure to minimize impacts to biological resources. Compliance with local, state, and federal laws would reduce the potential impacts to less than significant. Therefore, the proposed project considered with the related projects would not result in significant cumulative impacts to biological resources.

CULTURAL/PALEONTOLOGICAL RESOURCES

The context for assessing cumulative impacts to local archaeological and paleontological resources is to determine whether the project would result in a loss of these resources that could diminish or eliminate important information relevant to the history of the project area. The proposed project would be required to comply with Mitigation Measures CR-1, CR-2, CR-3, CR-4, PALEO-1, PALEO-2 and PALEO-3, which would require an archaeologist/paleontologist to evaluate any discovered potential archaeological/paleontological resources, and appropriate steps to preserve or curate the artifact and halt or redirect work. This would eliminate any potential loss of important archaeological or paleontological information that may be buried under the project site. Therefore, the proposed project

would not result in a cumulatively considerable contribution to impacts related to a cumulative loss of important archaeological or paleontological resources, and/or disturbed human remains.

Related cumulative projects identified would be evaluated for potential impacts to cultural resources and would be required to implement measures to reduce impacts to cultural resources. Therefore, the proposed project, when considered with the related cumulative projects, would not result in significant cumulative impacts to cultural resources.

ENERGY

Implementation of the proposed project would increase demand for electricity and natural gas. The proposed project would comply with regulatory compliance measures outlined by the state and county related to air quality, greenhouse gas emissions (GHG), Transportation/circulation, and water supply measures. Additionally, the proposed project would be constructed in accordance with all applicable City Building Codes. To minimize energy consumption, Mitigation Measure E-1 is recommended which includes installation of solar panels on each building. With regulatory compliance outlined by the state and county related to air quality, greenhouse gas emissions (GHG), transportation/circulation, and water supply measures and implementation of Mitigation Measure E-1, impacts would be less than significant and the project would not contribute considerably to cumulative significant energy impacts.

Related cumulative projects would be evaluated for potential energy impacts and would be required to comply with local and state polices, and regulations providing for the conservation energy and would be required to coordinate with local utility providers. With compliance of local and state energy conservation policies and regulations and coordination with local utility providers, potential energy impacts would be less than significant and the proposed project, when considered with related cumulative projects, would not contribute considerably to cumulatively significant impacts to energy consumption.

GEOLOGY AND SOILS

Like other areas in southern California, the proposed project could be subject to seismic shaking impacts. The proposed project would be required to be designed to meet the City's construction development standards and the seismic design parameters of the California Uniform Building Code. Additionally, the proposed project would be required to implement Mitigation Measure GEO-1, which requires the City of Palmdale to confirm that grading and construction plans for the project to incorporate design recommendations provided in the Preliminary Geotechnical Report prepared by Bruin Geotechnical March 2019. Implementation of the geotechnical design measures recommended in the project geotechnical report would ensure the stability of the project.

Grading activities for the proposed project would disturb onsite soils and increase potential for onsite and offsite erosion impacts. The project would be required to implement Mitigation Measure HWQ-1 which requires that the project will demonstrate that it has obtain coverage under a general construction permit issued from the State Water Resources Control Board, filing of a Notice of Intent with the State Water Resources Control Board and the preparation of a Storm Water Pollution Prevention Plan (SWPPP). With compliance of the California Uniform Building Code, and implementation of geotechnical design measures, and erosion control measures, potential geologic impacts would be less than significant. Therefore, the proposed project would not contribute to a cumulatively considerable impact regard to geologic impacts.

Related cumulative projects would be required to comply with California Building Code requirements to minimize potential geologic and seismic impacts and would be required to implement erosion control plans to minimize potential erosion and sedimentation impacts. Therefore, the proposed project, when considered with the related cumulative projects, would not contribute considerably to cumulatively significant geologic impacts.

GREENHOUSE GAS EMISSIONS

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, proposed project greenhouse emission impacts are not project-specific impacts, but would contribute to cumulative GHG impacts. Implementation of the proposed project would not exceed AVAQMD threshold significance. The proposed project's GHG emissions would be below the AVAQMD screening threshold, and the proposed project would not create a significant construction and operational impact from GHG emissions and potential impacts would be less than significant and would not contribute considerably to cumulative significant greenhouse gas impacts.

Related cumulative projects would be evaluated for greenhouse gas emission impacts and, if needed, would implement mitigation measures to reduce greenhouse gas emission impacts. Because potential greenhouse emission impacts associated with the proposed project would be less than significant, the proposed project, when considered with the related cumulative projects, would not result in a significant cumulatively considerable contribution to greenhouse gas emission impacts.

HAZARDS AND HAZARDOUS MATERIALS

The long-term operation of the proposed project would not involve the routine transport, use or disposal of hazardous materials in quantities or conditions that would pose a hazard to public health and safety or the environment. The operation of the proposed project would not involve any refueling or maintenance activities that would involve the handling of hazardous substances. The Phase 1 Environmental Site Assessment prepared for the project identified that there are no Recognized Environmental Conditions on the project site. Potential hazard and hazardous materials would be less than significant. Therefore, the proposed project would not contribute considerably to a cumulatively significant hazard and hazardous material impacts.

The construction and operation proposed project would involve the use of incidental amounts of hazardous substances, such as fuel, oil, and solvents. To ensure hazardous substances are not inadvertently released into the environment, the project would be required to comply with local, state, and federal laws regarding the handling, storage and transporting of hazardous substances and would be required to comply with spill prevention and clean-up BMPs during construction. With compliance with local, state, and federal laws and implementation of BMPs, the potential handling of hazardous materials would be less than significant. Therefore, the proposed project would not contribute cumulatively considerably to significant cumulative hazardous risk impacts with regard to the release of hazardous materials into the environment. The proposed project was determined to have a less than significant impact to interfering with an emergency evacuation plan and, therefore, would not be contributing considerably potential cumulative impacts associated with interfering emergency evacuation plans.

Cumulative related development projects would be required to comply with local, state, and federal laws and regulations regarding the handling, storing, and transporting of hazardous materials and potential to interfere with emergency evacuation plan. Through project reviews and compliance with

local, state, and federal laws, potential impacts would be less than significant. Therefore, the proposed project, when considered with the related cumulative projects, would not contribute considerably to a cumulatively significant hazard and hazardous material impacts.

HYDROLOGY AND WATER QUALITY

The proposed project has prepared and would implement a Water Quality Management Plan that would treat operational onsite surface water runoff before entering into the storm drain system. Therefore, the project would not be contributing considerably to cumulative Water Quality Impacts. Construction activities associated with the proposed project could have the potential to generate degraded surface water impacts which could adversely affect downstream receiving water bodies. The proposed project would be required to implement Mitigation Measure HWQ-1, which requires that the project would demonstrate that it has obtained coverage under a General Construction Permit issued from the State Water Resources Control Board, which would reduce construction related water quality impacts to less than significant and the project would not contribute considerably to construction related cumulatively significant water quality impacts. Additionally, the proposed project has proposed drainage plan that includes onsite detention basin that would capture and infiltrate storm water flows and prevent them from being conveyed onto adjacent properties. Therefore, the proposed project would not be contributing to cumulative flooding impacts.

Related cumulative development projects would be evaluated for potential water quality impacts and drainage impacts and would be required to provide drainage improvements and water quality Best Management Practices to minimize potential drainage and water quality impacts. Therefore, the proposed project, when considered with the related cumulative projects, would not contribute considerably to cumulatively significant hydrology or water quality impacts.

LAND USE

The proposed project would not construct any structures or barriers that would divide existing communities. Therefore, the proposed project would not contribute considerably to potential significant land use dividing impacts. The proposed project would be consistent with the existing General Plan Heavy Industrial land use designation and the existing Heavy Industrial zoning and site development standards for the project site. Additionally, the project would be consistent with relevant General Plan policies pertaining to the construction and operation of the project. Therefore, the project would not be contributing to creating incompatible land uses and would not contribute to cumulative impacts regarding potential conflicts with City of Palmdale planning programs. Therefore, the proposed project would not be contributing to cumulatively significant land use planning conflict impacts.

Related cumulative development projects would be subject to site-specific planning reviews that would address consistency with adopted General Plan goals, policies, objectives, as well as with the local development code standards. Each cumulative project would be analyzed independent of other projects, within the context of their respective land use and regulatory setting. As part of the review process, each project would be required to demonstrate compliance with the provisions of the applicable land use designation(s). Additionally, as part of the planning reviews, related projects would be subject to CEQA environmental review, where needed projects would be required to provide mitigation to reduce potential adverse impacts to the environment. Thus, the project and cumulative development projects would not result in cumulatively considerable impacts.

NOISE

The proposed project's long-term operational mobile and stationary noise impacts were determined to be less than significant. Mitigation Measures NOI-1 to NOI-4 are recommended which minimize construction and operational noise impacts. Therefore, the proposed project would not contribute considerably to significant cumulative noise impacts. Related cumulative projects would be required to comply with applicable noise and vibration standards, and regulations to minimize noise and vibration impacts. Therefore, the proposed project, considered with the related cumulative projects, would not result in significant cumulative noise impacts.

Cumulatively significant construction vibration would occur when construction activities at a site occurs in close vicinity of one another in a way that concentrates the vibration. The further construction activities occur from one another on each respective project site, the quicker the vibration dissipates by the time it reaches a sensitive receptor. Because heavy construction equipment moves around a project site and would only occur for limited durations, the average vibration levels at nearby structures would diminish rapidly with increasing distance between structures. There are no ongoing or planned construction activities near the project site that would contribute to cumulative vibration impacts. In addition, groundborne vibration generated at the site during construction would not be in exceedance of the Caltrans threshold of 0.25 inch per second peak particle velocity (PPV) and long-term vibration impacts from operations at the site would be less than significant. Therefore, the project's contribution to cumulative vibration impacts would not be cumulatively considerable. Cumulative related development projects would be required to comply with applicable noise and vibration standards and regulations to minimize noise and vibration impacts. Therefore, the proposed project, considered with the related cumulative projects, would not result in significant cumulative noise impacts.

POPULATION AND HOUSING

The project does not propose any residential development. Therefore, there would be no increase in population and housing growth within the project area and the project would not be contributing to unplanned population growth. Additionally, the proposed project would not induce substantial unplanned population growth by the extension of roads or other infrastructure that would facilitate unplanned population growth. The project would generate permanent employment opportunities and temporary construction opportunities. It is anticipated that both permanent and full-time employment opportunities likely would be filled from the local labor pool and would not result in the relocation of new households or the need to construct additional housing. Implementation of the proposed project would not result in substantial unplanned population growth and less than significant impacts would occur. As such, the project would not contribute to cumulatively significant growth impacts.

Through the City review process, related projects would be reviewed by the City to determine if the project would result in unplanned population growth that could result in significant impacts and if measures would be needed to minimize population growth impacts. Therefore, the proposed project, combined with related projects, would not contribute considerably to cumulatively significant population and housing impacts.

PUBLIC SERVICES

Fire Protection

The project would be required to comply with the Los Angeles Fire Department Fire Codes and would be reviewed by the Los Angeles County Fire Department to ensure that the project complies. The project would be required to pay Public Facility Impact Fees to help off-set the cost for the maintenance of existing public facilities and the construction of new publics facilities which reduce potential cumulative impacts to less than significant.

Through City reviews, the Los Angeles County Fire Department would review the cumulative development project to ensure it meets Fire Code standards and requirements. The cumulative project would be required to pay Public Facility Impact Fees to help off-set the cost for the maintenance of existing public facilities and the construction of new publics facilities which reduce potential cumulative impacts to less than significant. Therefore, the proposed project, combined with related projects, would not contribute considerably to cumulatively significant impacts to fire protection services.

Police Protection

The project would be required to comply with the Los Angeles Sherriff's Department Codes and would be reviewed by the Los Angeles County Sheriff's Department to ensure that the project complies. The project would be required to pay Public Facility Impact Fees to help off-set the cost for the maintenance of existing public facilities and the construction of new publics facilities which reduce potential cumulative impacts to less than significant.

Through City reviews, the Los Angeles County Sherriff's Department would review the cumulative development project to ensure it meets Los Angeles County Sheriff Department Code standards and requirements. The cumulative project would be required to pay Public Facility Impact Fees to help off-set the cost for the maintenance of existing public facilities and the construction of new public facilities which would reduce potential cumulative impacts to less than significant. Therefore, the proposed project, combined with related projects, would not contribute considerably to cumulatively significant impacts to police protection services.

TRANSPORTATION

The traffic impact evaluation prepared for the project included a cumulative impact analysis that factored in a two percent growth rate and the related cumulative development project and identified Mitigation Measures T-1, T-2, T-3, and T-4 to minimize traffic impacts. As shown in Table 4.21-1, *Level of Service with Recommended Improvements*, with implementation of mitigations measures, potential project traffic impacts and cumulative traffic impacts would be less than significant. The proposed project's long-term cumulative traffic impacts on project roadway segments, intersections, and freeway ramps, with implementation of mitigation measures, were determined to be less than significant. Therefore, the proposed project would not contribute considerably to significant cumulative traffic impacts. The proposed project did not meet any of the WRCOG screening criteria and a project VMT analysis was performed. The proposed project's VMT per service population was found to not exceed the City of Palmdale's baseline average VMT. Therefore, the project's impact on VMT is less than significant.

Table 4.21-1
Level of Service with Recommended Improvements

Intersection	Opening Year 2024 Background + Project With Improvements				Increase in Delay With the Addition of Project Traffic		Reduction in Delay with Improvements	
	AM Peak Hour		PM Peak Hour					
	Delay	LOS	Delay	LOS	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
3. Rancho Vista Blvd/Lockheed Way	85.6	F	28.2	C	18.5	27.7	(28.0)	(64.8)
4. Rancho Vista Blvd/10th Street East	51.2	D	42.5	D	14.2	(4.5)	(12.1)	(50.1)
5. Rancho Vista Blvd/Sierra Hwy	[a]							
7. Rancho Vista Blvd/10th Street West	[a]							

Notes:
[a] The recommended measure to improve deficient levels of service at these intersections is to prepare a study of, and implement, a signal coordination system on Rancho Vista Boulevard from 10th Street W to 15th Street E. Construction of two projects in the city's 2022 Five Year Capital Improvement Plan are likely to improve the deficient intersections without the need for signal coordination, but the CIP projects may not be completed and in operation until the end of this decade.
Source: David Evans and Associates Inc., *Level of Service Deficiency and Vehicle Miles Traveled Analysis*; December 29, 2022.

Through the City's review, the related cumulative projects would be required to prepare traffic studies to evaluate potential traffic impacts and would have to comply with the applicable traffic design standards, regulations, and mitigation measures to ensure significant cumulative traffic impacts do not occur. Therefore, the proposed project, when considered with the related cumulative projects, would not result in significant cumulative traffic impacts.

TRIBAL CULTURAL RESOURCES

The cultural resources search indicated that 31 cultural resources or historic properties have been previously identified within a one-mile radius of the project area. However, because there are no previously recorded resources located within the project site, absence of intact cultural resources within the project area, and the anticipation that potential subsurface components would not hold sufficient integrity, an archaeological monitor would not be recommended for the project. Because historic resources are known to occur in the region, there might be potential that unknown cultural resources could be encountered during excavation activities. In addition, tribal cultural monitoring would occur. Mitigation Measures CR-1, CR-2, CR-3, CR-4, TCR-1, and TCR-2 are required, which requires the halting of excavation activities in the event unknown historic resources or human remains are encountered. With implementation of Mitigation Measures CR-1, CR-2, CR-3, CR-4, TCR-1, and TCR-2, potential impacts to unknown historic resources would be less than significant and the project would not contribute considerably to significant cumulative impacts to tribal resources.

Related cumulative projects would be evaluated for potential impacts to tribal resources and would be required to implement measures to reduce impacts. Therefore, the proposed project, when considered with the related cumulative projects, would not contribute considerably to cumulatively significant impacts to cultural resources.

UTILITIES

Water

The proposed project is consistent with the City's General Plan and the water demands for the project water demands are accounted for in the Los Angeles County Waterworks District (LACWD) Urban Water Management Plan under a Normal Year, Single Dry Year and Multiple Dry year conditions. The proposed project would be required to pay water connection fees which would help fund the maintenance of existing water facilities and the construction of new water facilities. Therefore, the project would not be contributing to cumulative impacts on the ability for LACWD to provide adequate water service.

Through City reviews, the related cumulative development project would be evaluated for consistency with relevant Urban Water Management Plans to ensure the project would have adequate water supplies and if would contribute to potential cumulative on water supplies. The related development project would be required to coordinate with the Water District and receive a will serve letter that would ensure adequate water supplies would be available and that the project would not contribute to significant cumulative water supply impacts. Therefore, the proposed project, when considered with the related cumulative projects, would not result in significant cumulative water supply impacts.

Wastewater

The proposed project is consistent with the City's General Plan and the square footage of the proposed project is in line with the Palmdale Reclamation Plan growth projections. Additionally, the Palmdale Reclamation Plan is proposing an expansion that would account for additional growth in the region. The proposed project would be required to pay wastewater surcharge fees which would help fund the maintenance of existing wastewater facilities and the construction of new wastewater facilities. Therefore, the proposed project would not contribute considerably to cumulatively significant impacts to the treatment capacity of the Palmdale Reclamation Plant.

Through City reviews, the related cumulative development project would be evaluated for impacts on the capacity of the wastewater treatment facilities and consistency with relevant Urban Water Management Plans to ensure the project would have adequate water supplies and if it would contribute to potential cumulative water supply impacts. The related development project would be required to pay wastewater surcharge fees to help fund the maintenance of existing wastewater facilities and the construction of new wastewater facilities. The project would also be required to receive a will serve letter that would ensure adequate wastewater service would be available and that that the project would not contribute to significant cumulative wastewater treatment impacts. Therefore, the proposed project, when considered with the related cumulative projects, would not result in significant cumulative wastewater treatment impacts.

Solid Waste Disposal

The proposed project is consistent with the General Plan and solid waste growth projections for the City. According to City's General Plan EIR, all of the landfills that would serve the project would have adequate capacity into the foreseeable future. Additionally, the project would be required to comply with solid waste reduction measures which help conserve landfill capacity. Therefore, the project would not considerably contribute to significant cumulative solid waste disposal impacts.

Through City reviews, the project would be evaluated for solid waste impacts and how it may impact the capacity of receiving landfills. According to City's General Plan EIR, all of the landfills that would serve the project would have adequate capacity into the foreseeable future, which most likely would meet the landfill needs for the related development project. Additionally, the related project would be required to comply with solid waste reduction measures which help conserve landfill capacity. Therefore, the proposed project would not contribute considerably to cumulative significant solid waste disposal impacts.

Related cumulative projects would be evaluated for potential impacts to solid waste disposal and would be required to comply with state laws to reduce solid waste disposal demands. The proposed project, when considered with related cumulative projects, would not contribute considerably to cumulatively significant impacts to utility service systems.

WILDFIRE

According to the California Department of Forestry and Fire Protection, the project site is not within a High Fire Hazard Area or a State Responsibility Area. The project site is not contiguous to wildland slope conditions that would facilitate the spread of wildfire. The proposed project would be required to comply with local and state fire code requirements to reduce the risks for wildland fire impacts. The project would not involve the construction of habitable structures, increase population within the project area, or have substantial amounts of onsite employees that could conflict with emergency plans and responses. Potential wildland fire impacts would be less than significant. Therefore, the proposed project would not contribute considerably to cumulatively significant wildfire impacts.

Related cumulative projects would be evaluated for potential wildland fire risks and would be required to comply with local and state fire code requirements to reduce the risks for wildland fire impacts. Therefore, the proposed project, when considered with related cumulative projects, would not contribute considerably to cumulatively significant wildfire impacts.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated: The proposed project would not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. Potential impacts that could cause substantial adverse effects on human beings were analyzed in this Initial Study include, but are not limited to, air quality, greenhouse gas emissions, geology hazards, hazardous materials, seismic hazards, hydrology/water quality, noise, and wildfire. Each issue area found that there would be either no impacts, impacts would be less than significant, or impacts would be less than significant with mitigation incorporated. The proposed project would comply with local and regional planning programs, applicable codes, and ordinances, State and Federal laws and regulations, and mitigation measures to ensure that long-term operation activities and short-term construction activities associated with the proposed project would not result in direct, or indirect adverse impacts to human beings.

d) Have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Less Than Significant Impact: The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. If the proposed project is approved and constructed, a variety of short- and long-term impacts would occur. During construction, surrounding land uses could be temporarily impacted by dust and noise. There could also be an increase in vehicle pollutant emissions caused by grading and construction activities and potential generation of degraded surface water. However, these short-term effects would be temporary and would be avoided or lessened to a large degree through implementation of mitigation measures and compliance with regulatory requirements. The project would result in long-term environmental consequences associated with a transition in land use from vacant land to industrial land uses. Long-term operation of the project would change the physical appearance of the project site and would contribute increased traffic volumes, increased noise from operation of the project, increased amounts of impervious surfaces and increased energy and natural resource consumption. However, these long-term operational effects would be reduced to a less than significant level through implementation of mitigation measures and compliance with regulatory requirements. Construction and operation of the project would not result in significant adverse effects to the environment. Therefore, the project would not achieve short-term environmental goals that would result in the disadvantage of long-term environmental goals.

4.22 References

The following references were utilized during preparation of this Initial Study/Mitigated Negative Declaration. These documents are available for review at the City of Palmdale's Planning Division located at 38250 Sierra Highway, Palmdale, California 93550.

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David Evans and Associates, *Level of Service Deficiency and Vehicle Miles Traveled Analysis*. November 20, 2023.

TRIBAL RESOURCES

Tierra Environmental Services, *Cultural Resources Study*. September 5, 2022.

UTILITIES AND SERVICE SYSTEMS

Los Angeles County Waterworks District*, Urban Water Management Plan*. Adopted October 2021.

5.0 RESPONSIBLE AND REVIEWING AGENCIES RESPONSE TO COMMENTS

PENDING PUBLIC REVIEW

The following is a list of Responsible and Reviewing Agencies that submitted comments on the IS/MND during the public review period. The number designations in the responses are correlated to the bracketed and identified portions of each comment letter.

Comment Letter No.	Responsible and Reviewing Agency	Letter Dated

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6.0 INVENTORY OF MITIGATION MEASURES

AIR QUALITY

AQ-1: Per the requirements of AVAQMD Rule 403, the applicant shall submit a Dust Control Plan (DCP) to the Antelope Valley Air Quality Management District, and obtain approval, prior to initiating any grading or grubbing construction activity.

AQ-2: All construction equipment shall be maintained in proper tune.

AQ-3: All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five minutes or longer.

AQ-4: Minimize the simultaneous operation of multiple construction equipment units.

AQ-5: All haul trucks shall be registered on-road vehicles that meet the latest emissions standards for operating in California.

AQ-6: Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

BIOLOGICAL RESOURCES

BIO-1: Prior to project grading, the applicant shall confirm the western Joshua tree census. A survey from a qualified biologist shall be conducted pursuant to Section 1927.3 (a) (1-4) of the WJTCA and submitted to CDFW with the appropriate fee to obtain an Incidental Take Permit. If any additional trees are identified as part of this survey, additional fees will be paid subject to 1927.3 (d)(2) (A-B) of the WJTCA.

BIO-2: Nesting Bird Surveys. Vegetation removal activities shall be conducted outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. Any construction activities that occur during the season (February 15 to August 31) will require that all suitable habitats be thoroughly surveyed for the presence of nesting birds by a Qualified Biologist within three days before commencement of vegetation clearing/ground disturbance activities depending on which season work falls within. If any active nests are detected, a buffer of 500 feet of an active threatened or endangered species or raptor nest, 300 feet of other sensitive species (non-listed), and 100 feet of most common species will be delineated, flagged, and avoided until the nesting cycle is complete. The buffers may be modified and/or other recommendations proposed as determined appropriate by the Biological Monitor to minimize impacts.

BIO-3: Sensitive Species Surveys. A pre-construction presence/absence survey for sensitive species, including burrowing owl, Mohave ground squirrel, desert tortoise, southern grasshopper mouse, shall be conducted by a Qualified Biologist in compliance with CDFW standards within 30 days prior to any on-site ground disturbing activity. In the event these species are not identified within the Project Footprint, no further mitigation is required. If the Project Footprint is left undisturbed for more than 30 days, another pre-construction survey will be necessary to ensure sensitive species have not colonized the site since it was last disturbed.

If during the pre-construction survey, sensitive species are found to occupy the site, the City may require the Project Applicant to take the following actions to avoid/minimize impacts prior to ground disturbance:

- Active nests, roosts, burrows for sensitive species within the areas scheduled for disturbance or degradation shall be avoided with a minimum 250-foot buffer until the area is determined inactive by the Biological Monitor, subject to modification by the Biological Monitor and approved by the City.
- Passive or active relocation of sensitive species may occur with approval of the City. A Qualified Biologist to prepare a plan for relocating the species to a suitable site. The relocation plan shall include the following:
  - The location of the species proposed for relocation;
  - The location of the proposed relocation site;
  - The number of species involved and the time of year when the relocation is proposed to take place;
  - The name and credentials of the biologist who will be retained to supervise the relocation;
  - The proposed method of capture and transport for the species to the new site;
  - A description of site preparation at the relocation site; and
  - A description of efforts and funding support proposed to monitor the relocation.

CULTURAL RESOURCES

CR-1: In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and an archaeologist meeting the Secretary of Interior's professional qualification standards in archaeology shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) and Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

Should the find be deemed significant, as defined by CEQA (as amended, 2015), the project applicant shall retain two professional rotating Tribal Monitors, one procured to represent the YSMN and another to represent FTBMI, to observe all remaining ground-disturbing activities including, but not limited to, grading, leveling, clearing, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, driving posts, auguring, blasting, stripping topsoil or similar activity, and archaeological work. Additionally, the project archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to

YSMN and FTBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-2: During the pre-grade meeting, the team will present a Cultural Resources Worker Environmental Awareness Program (WEAP) training to review the project cultural resources mitigation measure, provide information on the cultural and archaeological sensitivity of the site, describe the types of cultural resources that may be present, and present the protocols that must be followed in the event of a cultural resource discovery. The WEAP informs contractor and applicant staff of regulatory compliance requirements and potential penalties if protocols are not observed. All field contractor personnel must complete the training. Additional training sessions can be offered if workers are not available for the initial training, or the training can be recorded.

CR-3: The Lead Agency and project applicant shall, in good faith, consult with both the FTBMI and the YSMN Nation Cultural Resources Department on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

CR-4: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project. Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

ENERGY

E-1: The project will include solar panels for each building. The final location and orientation of the solar panels will be identified at Site Plan Review.

GEOLOGY AND SOILS

HWQ-1: Prior to the issuance of a grading permit, the project will demonstrate that it has obtained coverage under a general construction permit issued from the State Water Resources Control Board, filed a Notice of Intent with the State Water Resources Control Board and prepared a Storm Water Pollution Prevention Plan (SWPPP).

GEO-1: Prior to issuance of grading permits, the applicant shall confirm that grading and construction plans for the project incorporate design recommendations provided in Appendix D1, *Geotechnical Investigation Reports*, prepared by Bruin Geotechnical in March 2019 and are submitted to the City of Palmdale. The design recommendations shall address site earthwork; remedial grading for building pads, retaining walls, asphalt-concrete, fill placement and compaction, native soil shrinkage, fill slope construction, imported slopes, grading observation and testing, pad drainage, foundation design, allowable bearing capacity, lateral load resistance, footing reinforcement, foundation setbacks, below grade retaining walls and structures, corrosion and chemical attack, excavations, utility trenches and backfill, interior concrete slab on grade, exterior concrete flatwork, rigid pavement, preliminary pavement design and construction considerations.

PALEO-1: Once earthmoving reaches three feet below the original ground surface, excavation shall be monitored under the direct guidance of a qualified paleontologist.

PALEO-2: The project shall retain a qualified paleontologist to review the approved development plan and shall conduct any pre-construction work necessary to render appropriate monitoring and mitigation requirements as appropriate. These requirements shall be documented by the project paleontologist in a Paleontological Resource Impact Mitigation Program (PRIMP). This PRIMP shall be submitted to the City's Community Development Department for review and approval prior to issuance of a Grading Permit. Information to be contained in the PRIMP shall meet the Society of Vertebrate Paleontology standards.

PALEO-3: If paleontological resources are detected and recovered during monitoring, a report must be prepared. The following items must be presented in the report: recovered specimens must be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. The recovered fossils must be identified and curated into a professional, fully accredited museum repository with permanent retrievable storage (e.g., NHMLAC). The qualified paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. The report and inventory, when submitted to the lead agency, will signify completion of the program to mitigate for impacts to paleontological resources.

HYDROLOGY AND WATER QUALITY

HWQ-1: Prior to the issuance of a grading permit, the project will demonstrate that it has obtained coverage under a General Construction Permit issued from the State Water Resources Control Board, filed a Notice of Intent with the State Water Resources Control Board and prepared a Storm Water Pollution Prevention Plan (SWPPP).

NOISE

NOI-1: All construction activities should take place Monday through Saturday, between the hours of 6:30 a.m. to 8:00 p.m. No construction should occur on Sundays.

NOI-2: The project should implement construction best practices to reduce noise levels. Best management practices should include the following:

- All construction equipment should be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).
- If feasible, electric hook-ups should be provided to avoid the use of generators.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, should be turned off when not in use for more than five minutes.

NOI-3: All HVAC equipment should be shielded from the line of sight of adjacent properties behind rooftop parapet walls.

NOI-4: Engine idling time for all delivery vehicles and moving trucks should be limited to five minutes or less. Signage should be posted near the loading areas indicating the idling time restrictions.

TRANSPORTATION

T-1: At Rancho Vista Boulevard/Lockheed Way, provide protected east-west left turn signal phasing.

T-2: At Rancho Vista Boulevard/10th Street East, increase cycle length/reprogram controller.

T-3: At Rancho Vista Boulevard/Sierra Highway, add a second eastbound left turn lane.

T-4: At Rancho Vista Boulevard/10th Street West, convert the third (outside) westbound through lane to a right turn lane, resulting in dual westbound right turn lanes.

TRIBAL CULTURAL RESOURCES

Mitigation Measures CR-1 through CR-4, stated within Section 4.5, are required.

TCR-1: The Fernandeño Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN) Cultural Resources Department shall be contacted, as detailed in CR-1, of any pre-contact and/or post contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regard to the significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with the consulting Tribes, and all subsequent finds shall be subject to this Plan. This Plan shall allow for two rotating monitors, one representing FTBMI and another to represent YSMN, to be present that represents the Tribes for the remainder of the project, should the Tribes elect to place a monitor onsite.

TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to the consulting Tribes. The Lead Agency and/or applicant shall, in good faith, consult with the Tribes throughout the construction of the project.

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7.0 REPORT PREPARATION PERSONNEL

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