Appendix A:
Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

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FIRSTCARBONSOLUTIONS™

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report
Palmyrita Avenue Warehouse Project
City of Riverside, Riverside County, California

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Report Date: November 7, 2022
Revised: February 22, 2023

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
ADA	Americans with Disabilities Act
AERMOD	American Meteorological Society/EPA Regulatory Model
APN	Assessor's Parcel Number
AQI	Air Quality Index
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
AQP	Air Quality Plan
ARB	California Air Resources Board
ASF	age sensitivity factors
ATCM	Airborne Toxic Control Measure
BAU	Business as Usual
BMP	Best Management Practice
C&D	Construction and Demolition
C^2ES	Center for Climate and Energy Solutions
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCCC	California Climate Change Center
CCS	Carbon Capture and Storage
CDC	Center for Disease Control and Prevention
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CNEL	Community Noise Equivalent Level

CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COA	Condition of Approval
CPF	cancer potency factor
CPUC	California Public Utility Commission
DBR	daily breathing rates
DPM	diesel particulate matter
DWR	California Department Water Resources
EIR	Environmental Impact Report
EMFAC	Emission Factors Model
EMWD	Eastern Municipal Water District
EPA	United States Environmental Protection Agency
EV	electric vehicle
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GAP	Green Accountability Performance
GHG	greenhouse gas
GWh	gigawatt hours
GWP	global warming potential
HAP	Hazardous Air Pollutant
HC	Healthy Community
HERO	Home Energy Renovation Opportunity
HFC	hydrofluorocarbon
HHD	Heavy Heavy-Duty
HHDT	Heavy Heavy-Duty Truck
HI	Hazard Index
hp	horsepower
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
HVLP	high volume low pressure
IPCC	United Nations Intergovernmental Panel on Climate Change
kBTU	kilo-British Thermal Unit
kWh	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LDA	Light-Duty Auto
LDT	Light-Duty Truck
LEV	Low Emission Vehicle
LID	Low Impact Development

LST	localized significance threshold
MDAB	Mojave Desert Air Basin
MDV	Medium-Duty Vehicle
MIR	Maximally Impacted Sensitive Receptor
MM	Mitigation Measure
MMT	million metric tons
mpg	miles per gallon
MPO	Metropolitan Planning Organization
MT	metric tons
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NF_3	nitrogen trifluoride
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NO_X	nitrogen oxides
OAL	Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PACE	Property Assessed Clean Energy
PEV	plug-in electric vehicle
PFC	perfluorocarbon
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
pb	lead
ppb	parts per billion
ppm	parts per million
REL	Reference Exposure Level
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RPU	Riverside Public Utilities
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Government
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF_6	sulfur hexafluoride
SIP	State Implementation Plan

SLCP	Short-Lived Climate Pollutant
SoCAB	South Coast Air Basin
SoCalGas	Southern California Gas Company
SO_X	sulfur oxides
SP	service population
SSAB	Salton Sea Air Basin
TAC	toxic air contaminant
TDM	Transportation Demand Management
TRU	Transport Refrigeration Unit
URBEMIS	Urban Emissions Model
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WRCOG	Western Riverside Council of Governments
ZEV	Zero-Emission Vehicle

SECTION 1: INTRODUCTION

1.1 - Purpose and Methods of Analysis

This Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the proposed Palmyrita Avenue Warehouse Project (proposed project) would cause significant impacts to air resources in the project area. The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, *et seq*.). The analysis methodology follows the South Coast Air Quality Management District (SCAQMD) and City of Riverside recommendations for the quantification of emissions and evaluation of potential impacts on air resources.

1.2 - Project Summary

1.2.1 - Site Location

The proposed project is located in the City of Riverside, in Riverside County, California.

The approximately 13.60-acre project site is located at 1151 Palmyrita Avenue, which is situated on the north side of Palmyrita Avenue and east of Iowa Avenue, corresponding to Assessor's Parcel Numbers (APNs) 247-170-030 and -039 (Exhibit 2). The project site is bounded to the east by railroad tracks; Palmyrita Avenue to the south; Iowa Avenue to the west; and railroad tracks, large warehouse, and a vacant lot to the north. The project site is currently used for a small-scale manufacturing facility occupied by BarretteWood USA and Barrette Outdoor Living in an existing warehouse building on the west side of the project site.

1.2.2 - Project Description

The project site is currently used as a warehouse with paved parking areas. The existing warehouse currently occupying the project site would be demolished as part of the proposed project.

The project applicant, Dedeaux Properties, Inc., proposes to construct two new warehouse buildings (Building 1 and Building 2) on an approximately 13.60-acre site (Assessor's Parcel Numbers [APNs] 247-170-030 and -039). The proposed project would analyze construction of the warehouse buildings under two scenarios: Scenario 1–a 100 percent warehousing scenario, and Scenario 2–a 75 percent warehousing and 25 percent manufacturing scenario. Additionally, off-site work would be included as part of both scenarios, including approximately 0.56 acre of frontage improvements, including a raised median island within Iowa Avenue (0.04 acre), as well as landscaping and sidewalks (0.47 acre), and driveways along the project site's frontage (0.05 acre).

1.2.3 - Scenario 1

Under Scenario 1 (Exhibit 3a), Building 1 would total 139,667 square feet, and consist of a 132,167-square-foot warehouse, 4,000-square-foot first floor office, and a 3,500-square-foot second floor

office. Building 1 would include 125 standard parking stalls, four Americans with Disabilities Act (ADA) standard stalls, two ADA van stalls, one electric vehicle (EV) ADA standard stall, one EV ADA van stall, 16 EV standard stalls, three Clean Air/Vanpool/EV stalls, and 10 parallel parking stalls, for a total of 162 parking stalls.

Building 2 would total 126,091 square feet, and consist of a 116,691-square-foot warehouse, 5,000-square-foot first floor office, and a 4,400-square-foot second floor office. Building 2 would include 126 standard parking stalls, four ADA standard stalls, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 155 stalls. The square footage of both buildings would total 265,758 square feet, with combined parking of 317 parking stalls. Building 2 would include 15 trailer parking stalls.

1.2.4 - Scenario 2

Under Scenario 2 (Exhibit 3b), Building 1 would total 122,315 square feet, and consist of a 88,736-square-foot warehouse with 30,579 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 1 would include 168 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and three Clean Air/Vanpool/EV stalls, for a total of 195 stalls.

Building 2 would total 122,127 square feet, and consist of 88,595-square-foot warehouse with 30,532 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 2 would include 159 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 188 stalls. The square footage of both buildings would total 244,442 square feet, with combined parking of 383 parking stalls.

Circulation

Access to the site would be provided via two driveways, one 40-foot-wide driveway and one 30-foot-wide driveway along Palmyrita Avenue, and one 35-foot-wide driveway along Iowa Avenue.

The main freight truck entrance/exit to the proposed warehouse would be from Palmyrita Avenue; the main passenger vehicle entrance would be from Iowa Avenue. It is conservatively assumed the building would operate 24 hours a day, 7 days per week, with the exception of some holidays. The proposed project is anticipated to employ no more than 236 employees. The proposed project would include roadway and frontage improvements along Palmyrita Avenue and Iowa Avenue, as well as the construction of a raised median along Iowa Avenue. Improvements to Palmyrita Avenue and Iowa Avenue would total approximately 0.56 acre.

1.2.5 - Water Quality Management Plan

The proposed project would include two Low Impact Development (LID) Best Management Practice (BMP), generally one each for Building 1 and Building 2, along with CDS clarifiers for pre-treatment. Each bioretention/biotreatment system would be situated west of each building and would capture and treat runoff from the project site.

The proposed project would also implement source control BMPs to mitigate potential runoff pollutants from landscaping/outdoor pesticide use, refuse areas, condensate drain lines, and plazas, sidewalks, loading docks and parking lots. Proposed source control BMPs include permanent structural BMPs such as implementing landscaping which maximizes groundcover and promotes infiltration, minimizes use of fertilizers and utilizes plants that are tolerant of saturated soil conditions. Refuse areas will be maintained and emptied by a qualified contracted waste management company, or the City. Equipment condensate lines would drain to the sanitary sewer. Operational source control BMPs include the proper disposal of green waste from landscaping maintenance and the provision of Pest Management Information, regular inspection and maintenance of refuse receptacles, and regular sweeping of plazas, sidewalks, and parking lots to prevent debris from entering the storm drain system.

1.2.6 - Landscaping

The proposed project would include 84,581 square feet of landscaping under Scenario 1 and 104,694 square feet of landscaping under Scenario 2. Landscaped areas would occur around the perimeter of the site and throughout the parking areas. Landscaping would consist of a variety of trees, shrubs, and groundcover, including blue palo verde, desert willow, chitalpa, Canary Island pine, Chinese pistache, coast live oak, African sumac, Brisbane box, street trees, pineapple guava, dwarf bottle brush, silverleaf cassia, dwarf dianella, dianella, fortnight lily, Texas Privet, rosemary, autumn sage, Mexican sage, coast rosemary, dwarf coast rosemary, blue flame agave, blue glow agave, coral aloe, red yucca, dwarf acacia, dwarf coyote bush, prostrate natal plum, and prostrate rosemary. Landscaping for the proposed project would be designed in accordance with the State mandated Assembly Bill (AB) 1881 Water Efficient Landscape Ordinance and the City of Riverside Municipal Code Chapter 19.570–Water Efficient Landscaping and Irrigation.[1,2]

1.2.7 - Building Elevations and Design

The maximum building height of the proposed buildings would be 42 feet for Scenario 1 and 41 feet for Scenario 2. Buildings would be composed of tilt-up concrete material, with blue glass, medal cladding, clear anodized mullions, and include muted earth tones such as bronze, white, gray, and beige. The design of the proposed project would be consistent with the Riverside Citywide Design Guidelines[3] and Good Neighbor Guidelines for Industrial Facilities.[4] Rooftop mechanical units, including heating, ventilation, and air conditioning (HVAC) systems, would be screened away from public view from adjacent streets.

[1] California Department of Water Resources (DWR). 2023. Model Water Efficiency Landscape Ordinance. Website: https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance. Accessed January 18, 2023.

[2] City of Riverside. 2022. City of Riverside Code of Ordinances, Chapter 19.570 Water Efficient Landscaping and Irrigation.

[3] City of Riverside. 2019. Riverside Citywide Design Guidelines. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/Citywide_Design_and_Sign_Guidelines_web%20version_Amended%2001-15-19_1.pdf. Accessed February 10, 2023.

[4] City of Riverside. 2020. Good Neighbor Guidelines for Industrial Facilities. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/2021/Good%20Neighbor%20Guidelines.pdf. Accessed February 10, 2023.

1.2.8 - Walls/Fences

The proposed project would include a retaining wall at the southwest, northwest, and southeast portions of the site, as well as within some portions of the site. This retaining wall would be 3 feet tall when visible from the public right-of-way and 6 feet tall when not visible from the public right-of-way. An 8-foot-tall tubular steel fence is proposed along the northern portion of the site, which would screen the proposed project from the existing railroad tracks adjacent to the site. A 14-foot-tall tilt up concrete screen wall is proposed at the northeast corner of the site, along with an 8-foot-tall tilt up concrete screen wall to the east, adjacent to the railroad tracks that abut the site to the east. In addition to the 8-foot-tall concrete screen wall, 14-foot-tall landscaping would further screen the site from the adjacent railroad.

8-foot-tall metal gates would also be located within the site to provide controlled access to various areas of the project.

1.2.9 - Outdoor Storage of Trucks and Screening

As mentioned above, a mix of fencing, walls, and landscaping would be located around the site perimeter to screen the proposed project from the adjacent roadways and railroad.

1.2.10 - Phasing and Construction

The following construction schedule was assumed for the purposes of this environmental analysis. The proposed project would be constructed in a single phase beginning fourth quarter 2023. Demolition and grading would occur within the first month of construction, and the proposed project is expected to be operational in the third quarter of 2024.

1.2.11 - Operation

The future warehouse tenant is unknown at this time. The proposed project is intended to be used primarily for the storage and/or consolidation of goods prior to their distribution to the customer or another supporting facility. The site would operate 24-hours a day, 365 days per year. Cold storage is not proposed as part of the project.

1.3 - Summary of Analysis Results

The following is a summary of the analysis results. Please refer to Section 5, Air Quality Impact Analysis; Section 6, Greenhouse Gas Impact Analysis; and Section 7, Energy Empact Analysis, which provide the comprehensive analysis in support of the findings and conclusion of significance.

Impact AIR-1 The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Less than significant impact.

Impact AIR-2 The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

Less than significant impact.

Impact AIR-3 The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Less than significant impact.

Impact AIR-4 The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Less than significant impact.

Impact GHG-1 The proposed project would generate direct and indirect greenhouse gas emissions; however, these impacts would not result in a significant impact on the environment.

Less than significant impact.

Impact GHG-2 The proposed project could conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHG.

Less than significant impact with mitigation incorporated.

Impact ENER-1 The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation.

Less than significant impact.

Impact ENER-2 The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency**.**

Less than significant impact.

1.4 - Standard Design Measures Applied to the Proposed Project

Air Quality

The applicable air quality standard design measures (SDM) are listed below.

No project-specific air quality mitigation measures were required to reduce potential impacts to less than significant; however, standard air quality design measures identified in the City of Riverside General Plan Environmental Impact Report (EIR) would apply to the proposed project.

Applicable General Plan EIR Standard Design Measures

SDM Air 1 To mitigate for potential adverse impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available Urban Emissions (URBEMIS) model, or other methods sanctioned by the South Coast Air Quality Management District (SCAQMD). The analysis of construction-related air quality impacts shall be included in the development project's CEQA analysis, including recommended mitigation measures. Proposed mitigation measures may include extending the construction period as feasible in order to ensure air quality thresholds are not exceeded. The analysis shall address pollution levels near sensitive receptors and require mitigation to reduce emissions.

SDM Air 2 To mitigate for potential adverse impacts resulting from construction activities, development projects must abide by the South Coast Air Quality Management District (SCAQMD) Rule 403 concerning Best Management Practices (BMPs) for construction sites in order to reduce emissions during the construction phase. Measures may include:

- Development of a construction traffic management program that includes, but is not limited to, rerouting construction-related traffic off congested streets, consolidating truck deliveries, and providing temporary dedicated turn lanes for movement of construction traffic to and from site;
- Sweep streets at the end of the day if visible soil material is carried onto adjacent paved public roads;
- Wash off trucks and other equipment leaving the site;
- Replace ground cover in disturbed areas immediately after construction;
- Keep disturbed/loose soil moist at all times;
- Suspend all grading activities when wind speeds exceed 25 miles per hour;
- Enforce a 15-mile per hour speed limit on unpaved portions of the construction site.

SDM Air 4 To reduce diesel emissions associated with construction, construction contractors shall provide temporary electricity to the site to eliminate the need for diesel-powered electric generators, or provide evidence that electrical hook ups at construction sites are not cost effective or feasible.

SDM Air 5 To reduce construction-related particulate matter air quality impacts of City projects, the following measures shall be required:

1. The generation of dust shall be controlled as required by the South Coast Air Quality Management District (SCAQMD).
2. Grading activities shall cease during periods of high winds (greater than 25 mph).
3. Trucks hauling soil, dirt or other emissive materials shall have their loads covered with a tarp or other protective cover as determined by the City Engineer.

4. The contractor shall prepare and maintain a traffic control plan, prepared, stamped and signed by either a licensed Traffic Engineer or a Civil Engineer. The preparation of the plan shall be in accordance with Chapter 5 of the latest edition of the Caltrans Traffic Manual and the State Standard Specifications. The plan shall be submitted for approval by the engineer at the preconstruction meeting. Work shall not commence without an approved traffic control plan.

The following mitigation measures shall be implemented to address long-term operational impacts:

SDM Air 7 As part of the CEQA process, the City shall require proposed development projects with potential operational air quality impacts to identify and mitigate those impacts. To ensure proper characterization and mitigation of those impacts, regional impacts shall be analyzed using the latest available Urban Emissions (URBEMIS) model, or other analytical method determined in conjunction with the South Coast Air Quality Management District (SCAQMD). To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, carbon monoxide (CO) Hot Spot analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation. Mitigation should reduce identified impacts to the maximum extent feasible using, among others, measures identified in the Air Quality Element Policies of the General Plan and the most recent Air Quality Management Plan (AQMP) as well as mitigation from the most recent CEQA Air Quality Handbook available at the SCAQMD. Example topics include, but are not limited to, energy conservation, reduction of Vehicle Miles Traveled (VMT), overall trip reduction, and reduction of particulate matter.

1.5 - Mitigation Measures Applied to the Proposed Project

Air Quality

No mitigation required.

Greenhouse Gas Emissions

Project-specific Mitigation Measures

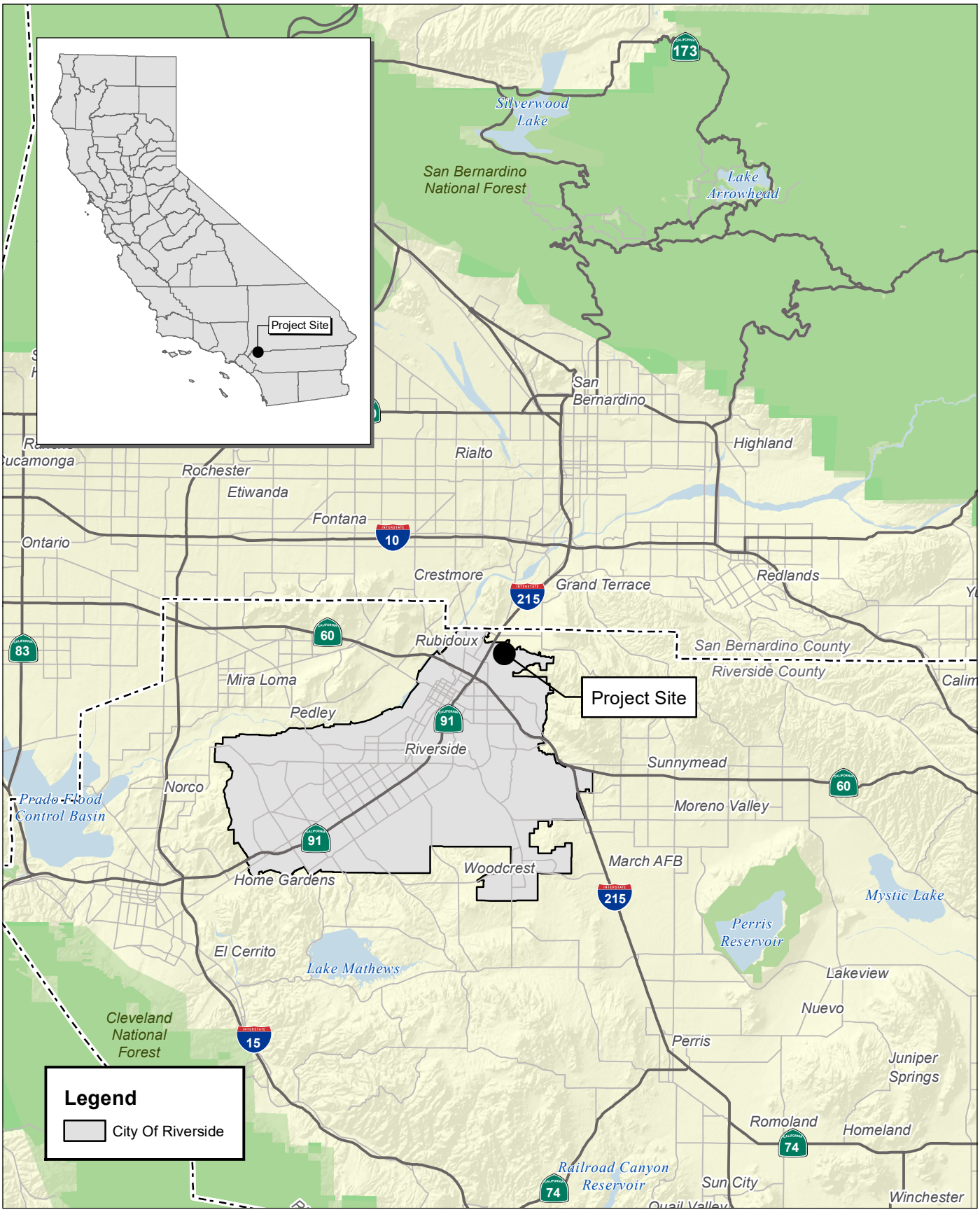
MM GHG-2 Zero-Emission Service Equipment

Prior to issuance of a construction permit the project applicant shall demonstrate to the City of Riverside that all on-site off-road and on-road service equipment would utilize zero-emission technology. Additionally, the project applicant shall provide documentation to the City of Riverside that all proposed buildings would be designed to include electric outlets to support the use of all-electric or zero-emission on-site service equipment.

Energy

No mitigation required.

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Source: Census 2000 Data, The California Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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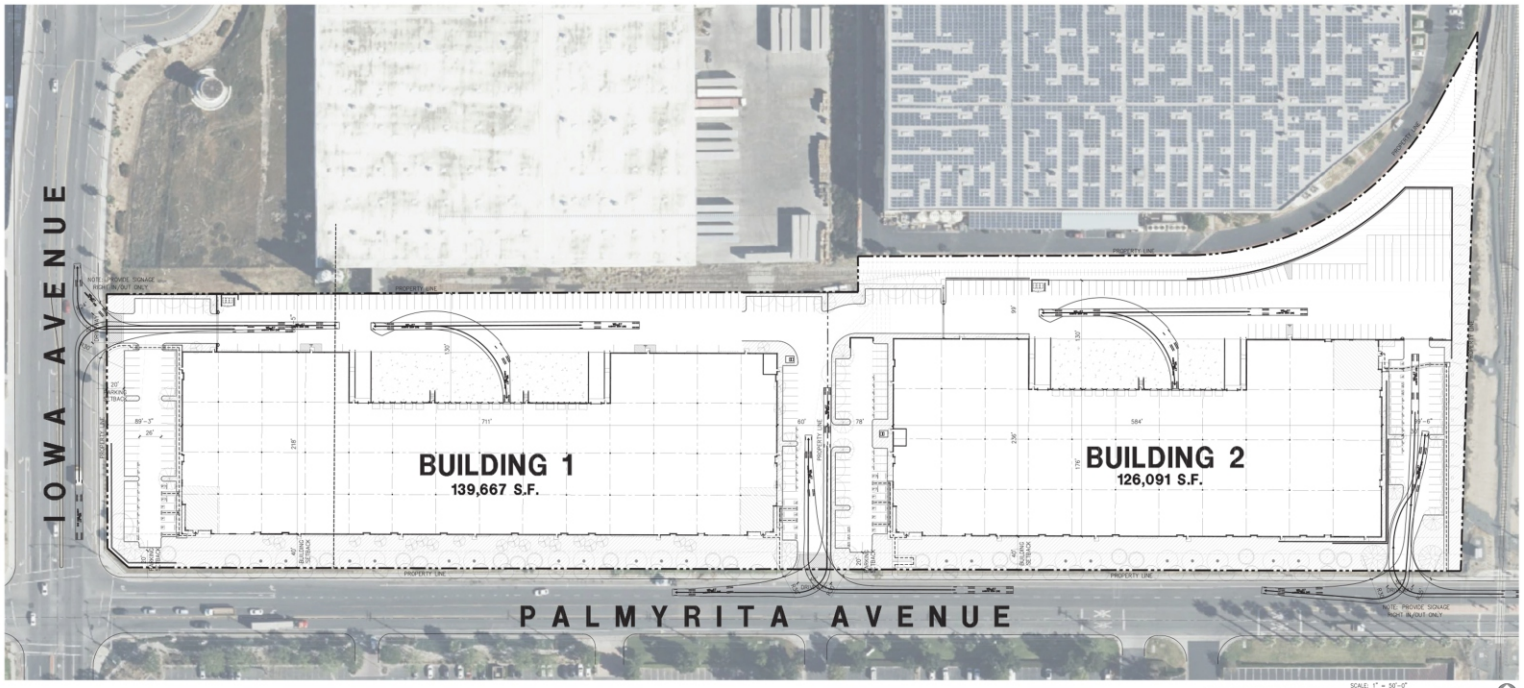
Source: Bing Aerial Imagery.

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1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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MASTER SITE PLAN (A)



CONCEPTUAL RENDERED VIEW (B)

TABULATION

	BLDG 1	BLDG 2	TOTAL
SITE AREA			
In sq. ft.	282,614	310,809	593,423 s.f.
In acres	6.49	7.14	13.62 ac
BUILDING AREA			
Office - 1st Floor	4,000	5,000	9,000 s.f.
Office - 2nd Floor	3,500	4,400	7,900 s.f.
Warehouse	132,167	116,691	248,858 s.f.
TOTAL	139,667	126,091	265,758 s.f.
COVERAGE	49.4%	40.6%	44.8%
AUTO PARKING REQUIRED			
Office: 1/250 s.f.	30	38	68 stalls
Ware: 1/1,000 s.f.	132	117	249 stalls
TOTAL	162	155	317 stalls
AUTO PARKING PROVIDED			
Standard (9' x 18')	125	126	251 stalls
Accessible Standard (9' x 18')	4	4	8
Accessible Van (12' x 18')	2	2	4
EV Accessible-Standard (9' x 18'	1	1	2
EV Accessible Van (12' x 18')	1	1	2
EV Standard (9' x 18')	16	16	32
Clean Air/Vanpool/EV	3	5	8
Parallel (9.5' x 25')	10	0	10 stalls
TOTAL	162	155	317 stalls
TRAILER PARKING PROVIDED	0	15	15 stalls
ZONING ORDINANCE FOR CITY:			
BMP - Business and Manufacturing Park Zone			
Specific Plan Overlay Zone (Hunter Business Park)			
MAXIMUM BUILDING HEIGHT ALLOWED			
Allow-45' - 0"			
Actual - 42'			
MAXIMUM FLOOR AREA RATIO			
FAR- 1.50			
LANDSCAPE REQUIRED			
Percentage -	5% of parking lot area		
LANDSCAPE PROVIDED			
Percentage	14.3%	14.3%	14.3%
s.f.	40,913	43,668	84,581 s.f.
SETBACK			
Front - 40' (BLDG over 30'), 20' (BLDG 30' or less)			
Side/Rear - 0'			
Landscape - 20' (arterial)			

AERIAL MAP



SITE LEGEND

LANDSCAPED AREA
A.C. PAVING – SEE "C" DRWGS. FOR THICKNESS
CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
24' WIDE FIRE LANE FIRE DEPT STANDARD
STANDARD PARKING STALL (9' X 18')
HANDICAP PARKING STALL (9' X 18')
CLEAN AIR/VANPOOL/EV CONDUIT STUB FOR FUTURE EV
CLEAN AIR/ VANPOOL/EV WITHOUT CONDUIT STUB FOR FUTURE EV
TRAILER PARKING (10' X 53')
PROPERTY LINE
ACCESSIBLE PATH OF TRAVEL

PROPERTY OWNER

DEDEAUX PROPERTIES
100 WILTSHIRE BLVD. SUITE 250
SANTA MONICA, CA 90401
CONTACT: BENJAMIN HORNING
PHONE: 323-981-8226

ADDRESS OF THE PROPERTY

NORTHEAST CORNER OF IOWA AVE. AND PALMYRITA AVENUE

ASSESSOR'S PARCEL NUMBER

0247-170-030
0247-170-039

SCOPE OF WORK

(2) INDUSTRIAL BUILDINGS TOTALING APPROXIMATELY 265,758 SF ON APPROXIMATELY (13.6) ACRES OF LAND

ZONING

BUSINESS AND MANUFACTURING PARK (BMP)

ADJACENT USES

BUSINESS AND MANUFACTURING PARK (BMP) ON ALL SIDES

APPLICANT

DEDEAUX PROPERTIES
100 WILTSHIRE BLVD. SUITE 250
SANTA MONICA, CA 90401
CONTACT: BENJAMIN HORNING
PHONE: 323-981-8226

APPLICANT'S REPRESENTATIVE

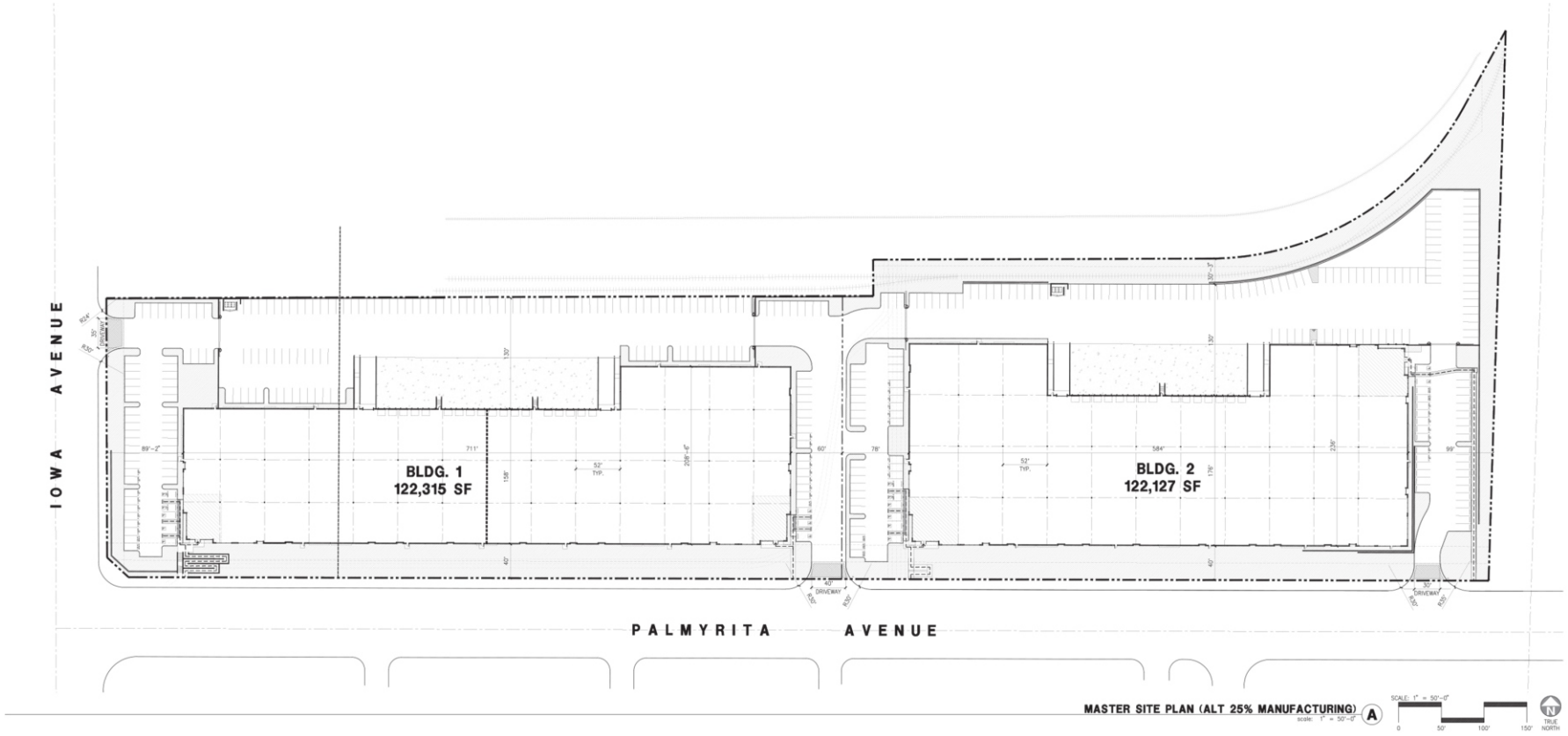
HPA, INC.
18831 BARDEEN AVE. SUITE 100
IRVINE, CA 92612
TEL: 949-863-1700
ATTN: INKSN KIM

Source: HPA, Inc. 02/10/2023.

FIRSTCARBON SOLUTIONS™

Exhibit 3a
Scenario 1 Site Plan - 100% Warehouse

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PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL	
SITE AREA				
in sq. ft.	282,128	310,303	592,431 s.f.	
in acres	6.48	7.12	13.60 ac	
BUILDING AREA				
Office - 1st Floor	3,000	3,000	6,000 s.f.	
Office - 2nd Floor	0	0	0 s.f.	
Warehouse	88,736	88,595	177,332 s.f.	
Manufacturing (25%)	30,579	30,532	61,111 s.f.	
TOTAL	122,315	122,127	244,442 s.f.	
COVERAGE	43.4%	39.4%	41.3%	
AUTO PARKING REQUIRED				
Office: 1/250 s.f.	12	12	24 stalls	
Whse: 1/1,000 s.f.	89	89	178 stalls	
Manuf: 1/350 s.f.	87	87	174 stalls	
TOTAL	188	188	376 stalls	
AUTO PARKING PROVIDED				
Standard (9' x 18')	168	159	327 stalls	
Accessible Standard (9' x 18')	4	4	8	
Accessible Van (12' x 18')	2	2	4	
EV Accessible Standard (9' x 18'	1	1	2	
EV Accessible Van (12' x 18')	1	1	2	
EV Standard (9' x 18')	16	16	32	
Clean Air/Vanpool/EV	3	5	8	
Parallel (9.5' x 25')	0	0	0 stalls	
TOTAL	195	188	383 stalls	
TRAILER PARKING PROVIDED	0	0	0 stalls	

ZONING ORDINANCE FOR CITY		
BMP - Business and Manufacturing Park Zone		
Specific Plan Overlay Zone (Hunter Business Park)		
MAXIMUM BUILDING HEIGHT ALLOWED		
Allowed - 45'		
Actual - 41'		
MAXIMUM FLOOR AREA RATIO		
FAR - 1.50		
LANDSCAPE REQUIRED		
Percentage -	5% of parking lot area	
LANDSCAPE PROVIDED		
Percentage	15.5%	19.6% 17.7%
s.f.	43,750	60,944 104,694 s.f.
SETBACK		
Front - 40' (BLDG over 30'), 20' (BLDG 30' or less)		
Side/Rear - 0'		
Landscape - 20' (arterial)		

Source: HPA, Inc. 02/10/2023.

FIRSTCARBON SOLUTIONS™

Exhibit 3b
Scenario 2 Site Plan - 75% Warehouse and 25% Manufacturing

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SECTION 2: AIR QUALITY SETTING

2.1 - Environmental Setting

The proposed project is located in the City of Riverside, California, situated in the South Coast Air Basin (SoCAB) which is a part of the SCAQMD. Regional air quality and local air quality are impacted by topography, dominant airflows, atmospheric inversions, location, and season. The following section describes these conditions as they pertain to the SoCAB.

2.1.1 - South Coast Air Basin

The proposed project is within the SoCAB. To the west of the basin is the Pacific Ocean. To the north and east of the basin are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the basin is the San Diego County line. The basin consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The air quality in the basin is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day.

Regional climate factors such as temperature, wind, humidity, precipitation, and amount of sunshine have a substantial influence on air quality in the SoCAB. The annual average temperatures throughout the SoCAB vary from the low to middle 60°F (degrees Fahrenheit). Because of a decreased marine influence, the eastern portion of the SoCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SoCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SoCAB have recorded maximum temperatures above 100°F.

Although the climate of the SoCAB can be characterized as semi-arid, the air near the land surface is relatively humid on most days because of the presence of a marine layer from the Pacific Ocean. This shallow layer of sea air is an important modifier of SoCAB climate. Humidity restricts visibility in the SoCAB and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SoCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature of the coastal areas. These effects decrease with distance from the coast.

More than 90 percent of the SoCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SoCAB, with frequency being higher near the coast.

The topography and climate of Southern California combine to make the SoCAB an area of high air pollution potential. A warm air mass frequently descends over the cool, moist marine layer produced

by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer, which traps the pollutants near the ground. Light winds can further limit ventilation. Additionally, abundant sunlight triggers the photochemical reactions which produce ozone and the majority of the particulate matter.[5]

2.2 - Regulatory Setting

Air pollutants are regulated to protect human health and for secondary effects such as visibility and building soiling. The Clean Air Act of 1970 tasks the United States Environmental Protection Agency (EPA) with setting air quality standards. The State of California also sets air quality standards that are, in some cases, more stringent than federal standards and address additional pollutants. The following section describes these federal and State standards and the health effects of the regulated pollutants.

2.2.1 - Clean Air Act

Congress established much of the basic structure of the Clean Air Act in 1970 and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants and listed below) are addressed in the Clean Air Act. The EPA calls these pollutants criteria air pollutants because it regulates them by developing human health-based and environmentally based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health are called primary standards. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Another set of limits intended to prevent environmental and property damage are called secondary standards.[6] The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone (O_3)
- Nitrogen dioxide (NO_2)
- Lead (Pb)
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide (SO_2)

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants.

2.2.2 - California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the Federal Clean Air Act at the time. California's air quality problems were and continue to be some of the most severe in the nation and required additional actions beyond the federal mandates. The California Air Resources Board (ARB) administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The

[5] South Coast Air Quality Management District (SCAQMD). 2017. Final 2016 Air Quality Management Plan.
[6] United States Environmental Protection Agency (EPA). 2016. NAAQS Table. December 20. Website: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed October 20, 2022.

10 State air pollutants are the six federal standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

2.2.3 - Toxic Air Contaminants

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate Hazardous Air Pollutants (HAPs). Section 112 of the Clean Air Act lists 187 HAPs to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. The ARB and local air districts regulate TACs and HAPs in California.

The California Almanac of Emissions and Air Quality–2013 edition presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data.[7] The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[8] In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances.

2.2.4 - Air Pollutant Description and Health Effects

The federal and State ambient air quality standards, relevant effects, properties, and sources of the air pollutants are summarized in Table 1.

[7] California Air Resources Board (ARB). 2013. The California Almanac of Emissions and Air Quality—2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/almanac-emissions-air-quality/about. Accessed October 24, 2022.

[8] California Air Resources Board (ARB). 1998. The Report on Diesel Exhaust. Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/dieseltac/de-fnds.htm. Accessed October 24, 2022.

Table 1: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind. Hot, sunny, and calm weather conditions are favorable to ozone formation.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_X) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hours	0.070 ppm	0.070 ppm[f]			
CO	1 Hour	20 ppm	35 ppm	Ranges depend on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood-burning, and natural sources.
	8 Hours	9.0 ppm	9 ppm			
NO_2[b]	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_X is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_X can react with compounds to form nitric acid and related small particles and result in PM-related health effects.	NO_X is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. NO_2 forms quickly from NO_X emissions. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
SO_2[c]	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.	SO_2 is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor like rotten eggs. Sulfur oxides (SO_X) include SO_2 and sulfur trioxide. Sulfuric acid is formed from SO_2, which can lead to acid deposition and can harm natural resources and materials. Although SO_2 concentrations have been reduced to levels well below State and federal standards, further reductions are desirable because SO_2 is a precursor to sulfate and PM_{10}.	Human caused sources include fossil fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of SO_2. The gas can also be produced in the air by dimethyl sulfide and hydrogen sulfide. SO_2 is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The SO_2 levels in the State are well below the maximum standards.
	3 Hours	—	0.5 ppm			
	24 Hours	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM_{10})	24 hours	50 µg/m^3	150 µg/m^3	• Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. • Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hours	—	35 µg/m^3			
	Annual	12 µg/m^3	12 µg/m^3			
Visibility-reducing particles	8 Hours	See note below[d]				

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hours	25 µg/m^3	—	Decrease in ventilatory function; aggravation of asthmatic symptoms; aggravation of cardiopulmonary disease; vegetation damage; degradation of visibility; and property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO_4^{2-}. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of SO_2. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[e]	30 days	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded State or federal standards at any monitoring station since 1982.	Lead ore crushing, lead ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[e]	24 Hours	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, the ARB identified vinyl chloride as a TAC and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application-sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
VOC		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified TACs.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, lightheadedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	DPM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, several which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources

Notes:
µg/m^3 = micrograms per cubic meter
30-day = 30-day average
Annual = Annual Arithmetic Mean
ppm = parts per million (concentration)
Quarter = Calendar quarter

[a] Federal standard refers to the primary NAAQS, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[b] To attain the 1-hour NO_2 national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb) (0.100 ppm).

[c] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[d] Visibility-reducing particles: In 1989, the ARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

[e] The ARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[f] The EPA Administrator approved a revised 8-hour ozone standard of 0.07 ppb on October 1, 2015. The new standard went into effect 60 days after publication of the Final Rule in the Federal Register. The Final Rule was published in the Federal Register on October 26, 2015, and became effective on December 28, 2015.

[g] The official level of the 1-hour NO_2 standard is 100 ppb, equal to 0.100 ppm, which is shown here for the purpose of clearer comparison to the other standards.

Source of effects, properties, and sources: United States Environmental Protection Agency (EPA). 2003. Particle Pollution and your Health. EPA-452/F-03-001. September.
United States Environmental Protection Agency (EPA). 2009. Ozone and your Health EPA-456/F-09-001.
United States Environmental Protection Agency (EPA). 2009. Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide. July.
United States Environmental Protection Agency (EPA). 2010. Technology Transfer Network, Air Toxics Website. Page updated December 21, 2018. Health Effects Notebook for Hazardous Air Pollutants. December. Website: https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants. Accessed October 24, 2022.
National Toxicology Program. 2011. Report on Carcinogens, Twelfth Edition; U.S. Department of Health and Human Services, Public Health Service. June 10. Benzene.
National Toxicology Program. 2016. Report on Carcinogens, Fourteenth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles.
California Environmental Protection Agency (Cal/EPA). 2002. Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust.
California Air Resources Board (ARB). 2009. Vinyl Chloride. Website: https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed October 24, 2022.
United States Environmental Protection Agency (EPA). 2017. Indoor Air Quality. Sources of Indoor Air Pollution—Organic Gases (Volatile Organic Compounds—VOCs). November. Website: www.epa.gov/iaq/voc.html. Accessed October 24, 2022.
National Toxicology Program. 2011. Report on Carcinogens, Twelfth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles.
Source of standards: South Coast Air Quality Management District (SCAQMD). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. February. Website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2. Accessed October 24, 2022.

Several pollutants listed in Table 1 are not addressed in this analysis. An analysis of lead is not included in this report because the proposed project would not generate a new source of lead emissions. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed under the analysis for PM_{10} and $PM_{2.5}$. No components of the proposed project would result in vinyl chloride or hydrogen sulfide emissions in any substantial quantity; therefore, these compounds are not further evaluated in this report.

Toxic Air Contaminants Health Effects

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate HAPs. Section 112 of the Clean Air Act lists 187 HAPs to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. The ARB and local air districts regulate TACs and HAPs in California.

The 2013 Edition of the California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data.[9] The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and DPM.

Several studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[10] In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Asbestos

Asbestos is the name given to several naturally occurring fibrous silicate minerals that have been mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the

[9] California Air Resources Board (ARB). 2013. The California Almanac of Emissions and Air Quality—2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/almanac-emissions-air-quality/about. Accessed October 24, 2022.

[10] California Air Resources Board (ARB). 1998. The Report on Diesel Exhaust Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/dieseltac/de-fnds.htm. Accessed October 24, 2022.

lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present. No naturally occurring asbestos is located near the project site.[11]

2.3 - Existing Air Quality Conditions

2.3.1 - Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are 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 3-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

The current attainment designations for the SoCAB are shown in Table 2. With respect to the CAAQS, the Riverside County portion of the SoCAB is nonattainment for ozone, PM_{10}, and $PM_{2.5}$ and attainment or unclassified for all other pollutants. With respect to the NAAQS, the Riverside County portion of the SoCAB is nonattainment for ozone and $PM_{2.5}$ and attainment or unclassified for all other pollutants.

Table 2: South Coast Air Basin Attainment Status

Pollutant	State Status[1]	National Status[2]
Ozone (1-hour) [a]	Nonattainment	Nonattainment (Extreme)
Ozone (8-hours)	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide (annual)	Attainment	Attainment (Maintenance)
Nitrogen dioxide (1-hour)	Attainment	Unclassifiable/Attainment
Sulfur dioxide	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment (Serious)
Lead (Riverside County)	—	Attainment

[11] California Department of Conservation, Division of Mine Reclamation. 2000. A General Location Guide for Ultramafic Rocks in California—Areas More likely to Contain Naturally Occurring Asbestos.

Pollutant	State Status[1]	National Status[2]
Hydrogen Sulfide (H_2S)	Attainment	—
Sulfates	Attainment	—
Vinyl Chloride	Attainment	—

Notes:
NAAQS = National Ambient Air Quality Standards
SoCAB = South Coast Air Basin
[a] On June 15, 2005, the 1-Hour Ozone NAAQS was revoked for all areas except the 8-Hour Ozone Nonattainment Early Action Compact areas. However, the SoCAB has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements.
Source: South Coast Air Quality Management District (SCAQMD). 2016. Clean Air Plans.

2.3.2 - Local Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 3 summarizes published monitoring data from 2019 through 2021. The table displays data from the Riverside-Rubidoux Station, which was the closest monitoring station to the project site with available data. The data shows that during the past few years, the project area has exceeded the standards for ozone (State and federal), PM_{10} (State), and $PM_{2.5}$ (State and federal). The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Riverside County or the SoCAB was available for CO or SO_2. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 3: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2019	2020	2021
Ozone[1]	1 Hour	Max 1 Hour (ppm)	**0.123**	**0.143**	**0.117**
		Days > State Standard (0.09 ppm)	**24**	**46**	**20**
	8 Hours	Max 8 Hours (ppm)	**0.096**	**0.115**	**0.097**
		Days > State Standard (0.07 ppm)	**59**	**82**	**55**
		Days > National Standard (0.075 ppm)	**37**	**60**	**32**
Carbon monoxide (CO)	8 Hours	Max 8 Hours (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO_2)	Annual	Annual Average (ppm)	0.060	0.060	0.060
	1 Hour	Max 1 Hour (ppm)	0.056	0.066	0.052
		Days > State Standard (0.18 ppm)	0	0	0

Air Pollutant	Averaging Time	Item	2019	2020	2021
Sulfur dioxide (SO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hours	Max 24 Hours (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM_{10})[1]	Annual	State Annual Average (µg/m^3)	**40.9**	**ND**	**33.2**
	24 Hours	Max 24 Hours (µg/m^3)	**182.4**	**137.7**	**114.3**
		Days > State Standard (50 µg/m^3)	**44**	**44**	**41**
		Days > National Standard (150 µg/m^3)	0	0	0
Fine particulate matter ($PM_{2.5}$)[2]	Annual	State Annual Average (12 µg/m^3)	11.2	**14.1**	**13.2**
	24 Hours	Max 24 Hours (µg/m^3)	**55.7**	**59.9**	**82.1**
		Days > National Standard (35 µg/m^3)	**5**	**12**	**11**

Notes:
> = exceed
µg/m^3 = micrograms per cubic meter
Bold = exceedance
max = maximum
National Standard = National Ambient Air Quality Standard (NAAQS)
ND = no data
ppm = parts per million
State Standard = California Ambient Air Quality Standard (CAAQS)
[1] All data were retrieved from Riverside-Rubidoux Station.
[2] State and National $PM_{2.5}$ Annual Average Standard is 12 $\mu g/m^3$
Source: California Air Resources Board (ARB). 2022. Top Four Summary. Website: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed August 22, 2022.

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest comparison is to the State and federal ozone standards. If concentrations are below the standard, it is safe to say that no significant health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air.

Based on the AQI scale for the 8-hour ozone standard, the City of Riverside experienced many days in the last 3 years that would be categorized as unhealthful (AQI 200) and as many as 82 days that were unhealthful for sensitive groups (AQI 150) or moderate (AQI 100) as measured at the Riverside-Rubidoux Monitoring Station. The highest 1-hour maximum reading was 143 parts per billion (ppb) in 2020, which is "Very Unhealthy."[12,13]

The other nonattainment pollutant of concern is PM_{10} and $PM_{2.5}$. For $PM_{2.5}$, an AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 35.4 µg/m^3, which is considered an exceedance of the federal $PM_{2.5}$ standard. The project area did exceed the

[12] AirNow. Air Quality Index (AQI) Basics. Website: https://www.airnow.gov/aqi/aqi-basics/. Accessed August 25, 2022.
[13] AirNow. AQI Calculator. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed August 25, 2022.

standard for 5 days in 2019, 12 days in 2020, and 11 days in 2021. The highest 24-hour average concentration recorded in the project area was 82.1 µg/m^3 in 2021. People with respiratory or heart disease, the elderly, and children are the groups most at risk. Usually under such air quality level, the sensitive population should consider reducing prolonged or heavy exertion.

2.4 - Air Quality Plans and Regulations

Air pollutants are regulated at the national, State, and air basin or county level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level, and the ARB regulates at the State level. The SoCAB is located within the SCAQMD. The SCAQMD includes Riverside County in its planning area and also includes portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. Within Riverside County, the SCAQMD also has jurisdiction over the Salton Sea Air Basin (SSAB) and a portion of the Mojave Desert Air Basin (MDAB).[14]

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans (SIPs), provides research and guidance for air pollution programs, and sets NAAQS, also known as the federal standards, described earlier.

An SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal air standards. The SIP for the State of California is administered by the ARB, which has overall responsibility for Statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for regional air districts—an air district prepares their federal attainment plan, which is sent to the ARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

Areas designated as nonattainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain and maintain air quality standards on schedule. For many areas of California, however, additional State and local regulations are required to achieve the standards. Regulations adopted by California are described below.

2.4.1 - California Regulations

Low Emission Vehicle Program

The ARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represented continuing progress in emission reductions. As the State's passenger vehicle fleet continued to grow and more sport utility vehicles and pickup trucks were used as passenger cars

[14] South Coast Air Quality Management District (SCAQMD). Jurisdiction Map. Website: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-jurisdiction.pdf. Accessed October 24, 2022.

rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 SIP. In 2012, ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Cars Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles.[15]

Executive Order N-79-20. Executive Order N-79-20 directs the State to require that, by 2035, all new cars and passenger trucks sold in California be zero-emission vehicles.[16]

ARB Advanced Clean Cars II Rule. Adopted by the ARB in August 2022, the Advanced Clean Cars II regulation supports the implementation of Executive Order N-79-20 and requires that by 2035, all new passenger cars, trucks and SUVs sold in California will be zero emissions.[17]

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, of the California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, the School Bus Program, and others.[18]

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than 5 consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014, for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

The latest amendments to the Truck and Bus Regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer, heavier trucks and buses met PM filter requirements beginning January 1,

[15] California Legislative Information. 2002. Clean Car Standards—Pavley, Assembly Bill 1493. Website: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020AB1493. Accessed October 24, 2022.
[16] Executive Department State of California. 2020. Executive Order N-79-20.
[17] California Air Resource Board (ARB). Proposed Advanced Clean Cars II Regulations. Website: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii. Accessed October 20, 2022.
[18] California Air Resource Board (ARB). On-Road Heavy-Duty Vehicle Programs. https://ww2.arb.ca.gov/road-heavy-duty-regulations-certification-programs. Accessed October 24, 2022.

2012. Mandatory replacement of lighter and older heavier trucks began January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks.[19]

California Air Resources Board Airborne Toxic Control Measure for Asbestos

In July 2001, the ARB approved an Airborne Toxic Control Measure (ATCM) for construction, grading, quarrying, and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of BMPs to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification, and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than 1 acre. These projects require the submittal of a "Dust Mitigation Plan" and approval by the ARB prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs; the project site includes a few metal structures which would be demolished as part of the proposed project. In addition, asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the project site.[20]

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of new State regulatory standards for

[19] California Air Resources Board (ARB). 2015. On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. Website: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation/about. Accessed October 24, 2022.

[20] Department of Conservation. 2000. A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos.

all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels.

The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010 and 85 percent by 2020.[21]

Regulations for Heavy-Duty Vehicles/Trucks

California Air Resources Board Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. This ATCM adopted Section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxins and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

California Air Resources Board Requirements to Reduce Idling Emissions from New and In-Use Trucks. Amendments were made to Title 13 of the California Code of Regulations, Sections 1956.8, 2404, 2424, 2425, and 2485. The amendment states: "all new 2008 and subsequent model year heavy-duty diesel engines shall be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to 'neutral' or 'park.'" There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

Statewide Truck and Bus Regulation (Regulation to Reduce Emissions of DPM, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles, Title 13, California Code of Regulations, Section 2025). On December 12, 2008, the ARB approved this regulation to reduce emissions from existing on-road diesel trucks and buses operating in California. This regulation applies to all on-road heavy-duty diesel-fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel-fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject to the regulation. Under the regulation, older, heavier trucks (i.e., those with pre-2000-year engines and a gross vehicle weight rating greater than 26,000 pounds), are required to have installed a PM filter and must be replaced with a 2010 engine between 2015 and 2020, depending on the model year.

[21] California Air Resources Board (ARB). 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles. Website: https://ww2.arb.ca.gov/our-work/programs/diesel-risk-reduction-plan. Accessed October 24, 2022.

Air Toxics Contaminant Measure for Transportation Refrigeration Units and Transportation Refrigeration Generator Sets was adopted by the ARB to reduce emissions of TAC emissions from in-use Transport Refrigeration Units (TRUs) and TRU generator sets used to power electrically-driven refrigerated shipping.[22]

2.4.2 - South Coast Air Quality Management District

SCAQMD CEQA Air Quality Guidelines

Standard Conditions

During construction and operation, the proposed project must comply with applicable rules and regulations. The following are rules and regulations the proposed project may be required to comply with, either directly or indirectly.

SCAQMD Rule 402 prohibits a person from discharging 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.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through the application of standard BMPs, such as the application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with the 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, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

Rule 403 measures may include, but are not limited to, the following:

- Apply non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)

[22] California Air Resource Board (ARB). 2022. Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units. Website: https://ww2.arb.ca.gov/resources/fact-sheets/2022-amendments-tru-atcm/printable/print. Accessed October 24, 2022.

- Cover all trucks hauling dirt, sand, soil, or other loose materials or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Provide bumper strips or similar BMPs where vehicles enter and exit the construction site onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- Replant disturbed areas as soon as practical.
- During all construction activities, sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. This rule would apply to the application of architectural coatings to the exterior and interior or of the building walls.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the SoCAB. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, State, county, agency, or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of relocated or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.

SCAQMD Rule 1401.1 provides additional health protection to children at schools or schools under construction from new or relocated facilities emitting TACs.

SCAQMD Rule 1403 establishes Survey Requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, provides employers with a menu of options to reduce mobile source emissions generated from employee commutes to comply with federal and State Clean Air Act requirements, Health and Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

SCAQMD Rule 2305 is an indirect source rule that regulates warehouse facilities with at least 100,000 square feet of indoor floor space in a single building. The rule requires the implementation of emission reduction measures, or the payment of an annual mitigation fee, as well as requiring reporting on facility operations. The intent of the rule is to reduce emissions from the goods movement industry.

Air Quality Management Plans

As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. In the SoCAB, the SCAQMD is required to prepare a plan for improvement for the air pollutants for which the SoCAB is in nonattainment.

On March 3, 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP addressed strategies and measures to attain the 2008 federal 8-hour ozone standard by 2032, the 2012 federal annual $PM_{2.5}$ standard by 2021 to 2025, and the 2006 federal 24-hour $PM_{2.5}$ standard by 2019. The 2016 AQMP also examined the regulatory requirements for attaining the 2015 federal 8-hour ozone standard. The 2016 AQMP also updates previous attainment plans for ozone and $PM_{2.5}$ that have not yet been met.[23] In general, the AQMP is updated every 3 to 4 years. However, the air quality planning process for the AQMP is continuous and each iteration is an update of the previous plan.

To ensure air quality goals will be met while minimizing impacts to the regional economy, the following policy objectives guided the development of the plan:

- Eliminate reliance on “black box” (future technologies) to the maximum extent possible by providing specific pathways to attainment with specific control measures.
- Calculate and take credit for co-benefits from other planning efforts (e.g., GHG reduction targets, energy efficiency, and transportation).
- Develop a strategy with fair share emission reductions at the federal, State, and local levels, such as a new federal engine emission standards and/or additional authority provided to the State or SCAQMD for mobile sources.
- Seek significant funding for incentives to implement early deployment and commercialization of known zero and near-zero technologies.

[23] South Coast Air Quality Management District (SCAQMD). 2017. Final 2016 Air Quality Management Plan. March.

- Invest in strategies and technologies meeting multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation.
- Enhance the socioeconomic analysis and select the most efficient and cost effective path to achieve multi-pollutant and multi-deadline targets.
- Prioritize non-regulatory, innovative, and "win-win" approaches for emission reductions.

The AQMP also demonstrates compliance with all applicable Federal Clean Air Act requirements pertaining to nonattainment areas pursuant to the EPA-approved Implementation Rules, such as the annual average and summer planning emission inventory for criteria and precursor pollutants, attainment demonstrations, reasonably available control measures and reasonably available control technology analyses, reasonable further progress, PM precursor requirements, Vehicle Miles Traveled (VMT) demonstrations, and transportation conformity budgets for SoCAB.

The control measures in the 2016 AQMP are based on implementing all feasible control measures through the accelerated deployment of available cleaner technologies, BMPs, co-benefits from existing programs, and incentive measures. The 2016 AQMP control measures consist of three main components: (1) the SCAQMD's Stationary and Mobile Source Control Measures; (2) suggested State and federal Source Control Measures; and (3) Regional Transportation Plan Transportation Control Measures provided by the Southern California Association of Governments (SCAG). These measures rely on not only the traditional command-and-control approach but also public incentive programs, as well as advanced technologies expected to be developed and deployed in the next several years.

SCAQMD is currently in the process of updating the AQMP to address the recently strengthened primary and secondary NAAQS for ozone, which were lowered to 70 ppb by EPA in 2015. The SoCAB is classified as an "extreme" nonattainment area for the 2015 Ozone NAAQS. The 2022 AQMP is currently in progress and is being developed to address the requirements for meeting this standard.

SCAQMD CEQA Guidance

The SCAQMD has two roles under CEQA:

1. Lead Agency: responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the SCAQMD where the SCAQMD has primary approval authority over the proposed project.
2. Commenting Agency: reviews and comments on air quality analyses prepared by other public agencies (such as the proposed project).

The SCAQMD also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance as well as State regulations to control air pollution is an overall improvement in the project area.

2.4.3 - Local

City of Riverside General Plan

The City of Riverside General Plan 2025 guides local government decision on growth, capital investment, and physical development in the City. The City amended the General Plan's Air Quality Element in 2007. The General Plan has the following measures adopted to mitigate air quality impacts:[24]

Air Quality (AQ) Element Policy

AQ-1.1 Ensure that all land use decisions, including enforcement actions, are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status or geographic location, from the health effects of air pollution.

AQ-1.2 Consider potential environmental justice issues in reviewing impacts (including cumulative impacts for each project proposed).

AQ-1.3 Separate, buffer and protect sensitive receptors from significant sources of pollution to the greatest extent possible.

AQ-1.15 Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.

AQ-1.21 Cooperate and participate in regional air quality management plans, programs and enforcement measures.

AQ-2.4 Monitor and strive to achieve performance goals and/or VMT reduction, which are consistent with SCAG's goals.

AQ-2.11 Develop ways to incorporate the "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities" into the Development Review process and citywide air quality education programs.

AQ-2.17 Encourage, and to the extent possible, require through the land use entitlement or business regulation process, business owners to schedule deliveries at off-peak traffic periods.

AQ-4.2 Reduce particulate matter from agriculture (e.g., require use of clean non-diesel equipment and particulate traps), construction, demolition, debris hauling, street cleaning, utility maintenance, railroad right-of-way and off-road vehicles to the extent possible as provided in SCAQMD Rule 403.

AQ-4.3 Support the reduction of all particulates' potential sources.

[24] City of Riverside. 2007. General Plan Air Quality Element.

AQ-4.4 Support programs that reduce emissions from building materials and methods that generate excessive pollutants through incentives and/or regulations.

AQ-4.5 Require the suspension of all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hours.

City of Riverside General Plan EIR

The air quality impacts of implementation of the General Plan were evaluated in the General Plan EIR. The General Plan EIR provides the following mitigation measures to reduce air pollutant impacts.[25]

The following standard design measures shall be implemented to address short-term construction impacts as appropriate on a case-by case basis:

SDM Air 1 To mitigate for potential adverse impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available Urban Emissions (URBEMIS) model, or other methods sanctioned by the South Coast Air Quality Management District (SCAQMD). The analysis of construction-related air quality impacts shall be included in the development project's CEQA analysis, including recommended mitigation measures. Proposed mitigation measures may include extending the construction period as feasible in order to ensure air quality thresholds are not exceeded. The analysis shall address pollution levels near sensitive receptors and require mitigation to reduce emissions.

SDM Air 2 To mitigate for potential adverse impacts resulting from construction activities, development projects must abide by the South Coast Air Quality Management District (SCAQMD) Rule 403 concerning Best Management Practices for construction sites in order to reduce emissions during the construction phase. Measures may include:

- Development of a construction traffic management program that includes, but is not limited to, rerouting construction-related traffic off congested streets, consolidating truck deliveries, and providing temporary dedicated turn lanes for movement of construction traffic to and from site;
- Sweep streets at the end of the day if visible soil material is carried onto adjacent paved public roads;
- Wash off trucks and other equipment leaving the site;
- Replace ground cover in disturbed areas immediately after construction;
- Keep disturbed/loose soil moist at all times;
- Suspend all grading activities when wind speeds exceed 25 miles per hour;
- Enforce a 15-mile per hour speed limit on unpaved portions of the construction site.

[25] City of Riverside. 2007. General Plan and Supporting Documents EIR, Section 5.3 Air Quality.

SDM Air 4 To reduce diesel emissions associated with construction, construction contractors shall provide temporary electricity to the site to eliminate the need for diesel-powered electric generators, or provide evidence that electrical hook ups at construction sites are not cost effective or feasible.

SDM Air 5 To reduce construction-related particulate matter air quality impacts of City projects, the following measures shall be required:

1. The generation of dust shall be controlled as required by the South Coast Air Quality Management District (SCAQMD).
2. Grading activities shall cease during periods of high winds (greater than 25 mph).
3. Trucks hauling soil, dirt or other emissive materials shall have their loads covered with a tarp or other protective cover as determined by the City Engineer.
4. The contractor shall prepare and maintain a traffic control plan, prepared, stamped and signed by either a licensed Traffic Engineer or a Civil Engineer. The preparation of the plan shall be in accordance with Chapter 5 of the latest edition of the Caltrans Traffic Manual and the State Standard Specifications. The plan shall be submitted for approval by the engineer at the preconstruction meeting. Work shall not commence without an approved traffic control plan.

The following standard design measures shall be implemented to address long-term operational impacts:

SDM Air 6 Within a year of adoption of the General Plan 2025 Program the City will implement the Good Neighbor Guidelines prepared by Western Riverside Council of Governments in coordination with the South Coast Air Quality Management District (SCAQMD). Implementation of these Guidelines shall include, but are not limited to, measures to:

- minimize exposure to diesel emissions to neighbors in close proximity to a warehouse/distribution center;
- substantially eliminate diesel trucks from unnecessarily traversing through residential neighborhoods; and
- reduce diesel idling within the warehouse/distribution center.

SDM Air 7 As part of the CEQA process, the City shall require proposed development projects with potential operational air quality impacts to identify and mitigate those impacts. To ensure proper characterization and mitigation of those impacts, regional impacts shall be analyzed using the latest available Urban Emissions (URBEMIS) model, or other analytical method determined in conjunction with the South Coast Air Quality Management District (SCAQMD). To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, carbon monoxide (CO) Hot Spot analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation. Mitigation should reduce identified impacts

to the maximum extent feasible using, among others, measures identified in the Air Quality Element Policies of the General Plan and the most recent Air Quality Management Plan (AQMP) as well as mitigation from the most recent CEQA Air Quality Handbook available at the SCAQMD. Example topics include, but are not limited to, energy conservation, reduction of Vehicle Miles Traveled (VMT), overall trip reduction, and reduction of particulate matter.

Hunter Park Specific Plan

The intent of the Specific Plan is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and business of the City of Riverside.[26] The project site is zoned for Business and Manufacturing Park Zone. This zone provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials, and retail related to manufacturing. The Specific Plan provides design guidelines for land use and circulation for the plan area. The Specific Plan does not require design features or other measures that are intended to reduce impacts related to air quality, GHG emissions, or energy consumption.

City of Riverside Municipal Code

The Riverside Municipal Code establishes the following air quality provisions that are relevant to the proposed project (Riverside Municipal Code § 16.07.020).

ZONES Chapter 16.07 - GREEN CODE

16.07.020–California Green Building Standards Code adopted–Filed with Building Official

The California Green Building Standards Code, 2019 Edition, including any related errata, and any amendments thereto by the State of California in the 2019 Edition of Title 24 of the California Code of Regulations, which regulates the planning, design, operation, use and occupancy of every newly constructed building or structure is adopted and by this reference is made a part of this Code with the force and effect as though set out herein in full, with the exception of those parts expressly excepted and deleted or as amended by this chapter. One copy of the California Green Building Standards Code with the amendments thereto by the State of California, which has been certified as a true copy, is on file and open to public inspection in the office of the building official.

[26] City of Riverside. Adopted in 1988; amended in 2002. Hunter Business Park Specific Plan. April.

SECTION 3: CLIMATE CHANGE SETTING

3.1 - Climate Change

Climate change is a change in the average weather of Earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. Working Group I predicted that increase in global surface temperature is 1.09°C (degrees Celsius) in 2011–2020 above 1850–1900. The estimated increase in global surface temperature since the Fifth Assessment Report is principally due to further warming from 2003–2012. Considering all five illustrative scenarios assessed by Working Group I, there is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low greenhouse gas emissions scenario.[27] The report also stated that "[e]xtreme climate events comprising conditions beyond which many species are adapted are occurring on all continents, with severe impacts ," and that "[w]ithout urgent and ambitious emissions reductions, more terrestrial, marine and freshwater species and ecosystems will face conditions that approach or exceed the limits of their historical experience."

An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

3.1.1 - Consequences of Climate Change in California

In California, climate change may result in consequences such as the following.[28, 29]

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

[27] Intergovernmental Panel on Climate Change (IPCC). 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Website: https://www.ipcc.ch/report/ar6/wg2/. Accessed October 25, 2022.

[28] California Climate Change Center (CCCC). 2006. Our Changing Climate, Assessing the Risks to California: A Summary Report from the California Climate Change Center. July 2006. CEC-500-2006-077.

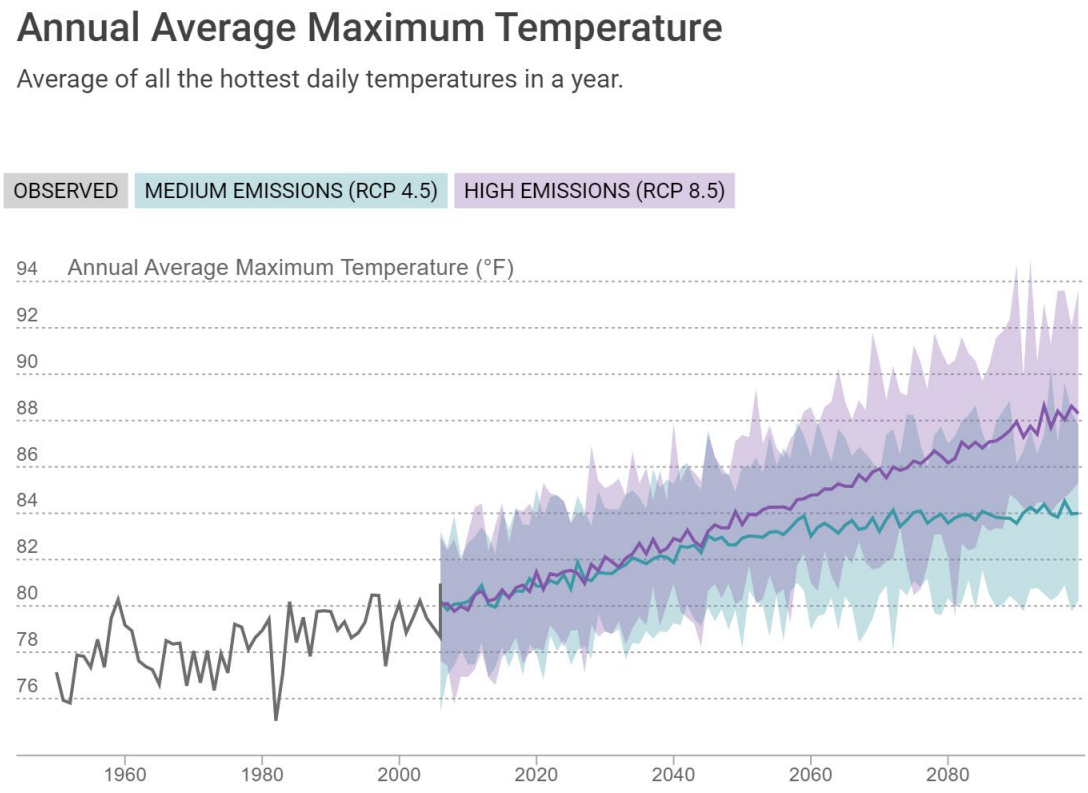
[29] Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071.

- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of Southern California are estimated to increase by approximately 30 percent toward the end of the twenty-first century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more Northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

City of Riverside Area

Figure 1 displays a chart of measured historical and projected annual average temperatures in the City of Riverside area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures by the end of the century are predicted to increase by 5.7°F under the medium emissions scenario and 8.8°F under the high emissions scenario.[30]

[30] Cal-Adapt. 2022. Local Climate Snapshots. Website: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed September 6, 2022.



Source: Cal-Adapt. 2022. Local Climate Snapshots. Website: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed October 28, 2022.

Figure 1: Observed and Projected Temperatures for Climate Change in the Project Area

3.2 - Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons, hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF_6), ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the Earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. To describe how much global warming a given type and amount of GHG may cause, the CO_2 equivalent (CO_2e) is used. The calculation of the CO_2 equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 25 indicates that CH_4 has 25 times greater warming effect than CO_2 on a molecule-per-molecule basis. A CO_2 equivalent is the mass emissions of an individual GHG multiplied by its global warming potential. As described in Table 4, the GHGs defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, N_2O,

HFC, PFC, and SF_6. A seventh GHG, nitrogen trifluoride (NF_3), was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern.

Table 4: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes.
CH_4	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
CO_2	CO_2 is an odorless, colorless, natural GHG. CO_2's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
HFC	HFCs are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	HFCs are synthetic man-made chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
PFC	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of PFCs are primary aluminum production and semiconductor manufacturing.
SF_6	SF_6 is an inorganic, odorless, colorless, and non-toxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is man-made and used for insulation in electric power transmission equipment in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Core Writing Team, Pachauri, R.K. and Reisinger, A. editors).		

The State of California has begun the process of addressing pollutants referred to as short-lived climate pollutants. The short-lived climate pollutants include three main components: black carbon,

fluorinated gases, and methane. The ARB approved the Short-Lived Climate Pollutant Reduction Strategy in March 2017. The ARB has completed an emission inventory of these pollutants, identified research needs, identified existing and potential new control measures that offer co-benefits, and coordinated with other State agencies and districts to develop measures.[31] Typical sources of black carbon are already regulated by the ARB, and air district criteria pollutant and toxic regulations control $PM_{2.5}$ from diesel engines and other combustion sources.[32] Additional controls on the sources of black carbon, specifically for their GHG impacts beyond those required for toxic and fine particulates, are not likely to be needed.

Human Health Effects of GHG Emissions

GHG emissions from development projects do not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.[33]

The United States Global Change Research Program, in its Global Climate Change Impacts in the United States report,[34] has analyzed the degree to which impacts on human health are expected to impact the United States.

Potential effects of climate change on public health include:

- **Direct Temperature Effects:** Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.
- **Extreme Events:** Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.
- **Climate-Sensitive Diseases:** Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever, and encephalitis.
- **Air Quality:** Respiratory disorders may be exacerbated by warming-induced increases in the frequency of smog (ground level ozone) events and particulate air pollution.

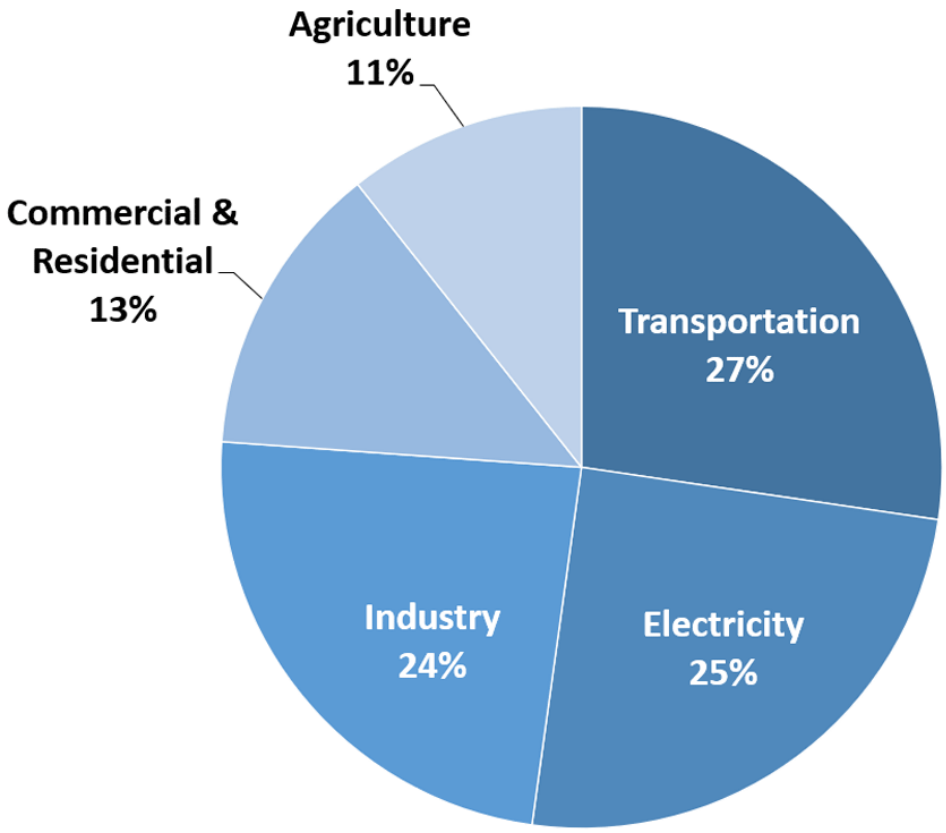
Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (PM). At very high indoor concentrations (not at levels existing outside), CO, CH_4, SF_6, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.

[31] California Air Resources Board (ARB). 2016. Proposed Short-Lived Climate Pollutant Reduction Strategy. Website: http://www.arb.ca.gov/cc/shortlived/shortlived.htm. Accessed October 24, 2022.
[32] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed October 24, 2022.
[33] Centers for Disease Control and Prevention (CDC). CDC's Climate and Health Program - an Investment in our Future. Website: https://www.cdc.gov/climateandhealth/factsheet.htm. Accessed October 24, 2022.
[34] The United States Global Change Research Program. 2009. Global Climate Change Impacts in the United States.

3.2.1 - Emissions Inventories

United States GHG Inventory

In 2019, United States GHG emissions totaled 6,558 million metric tons (MMT) CO_2e. In 2020, U.S. GHG emissions totaled 5,222 million MMT CO_2e after accounting for sequestration from the land sector. Emissions decreased from 2019 to 2020 by 11 percent (after accounting for sequestration from the land sector). The primary driver for the decrease was an 11 percent decrease in CO_2 emissions from fossil fuel combustion. This decrease was primarily due to a 13 percent decrease in transportation emissions driven by decreased demand due to the ongoing COVID-19 pandemic. Figure 2 presents 2020 United States GHG emissions by economic sector. GHG emissions in 2020 were 21 percent below 2005 levels.[35]



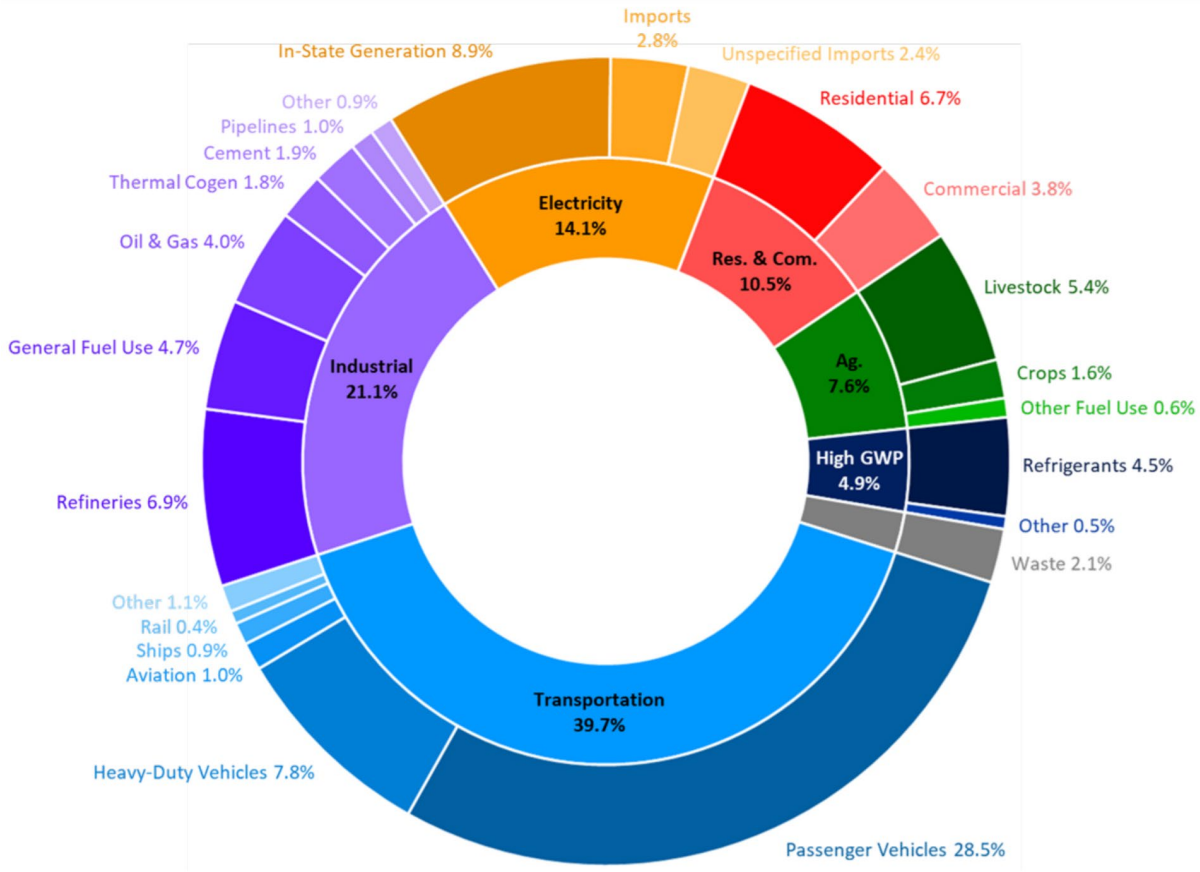
Source: Inventory of U.S. GHG Emissions and Sinks. 2022. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed October 21, 2022.

Figure 2: Sources of U.S. Greenhouse Gas Emissions in 2020

[35] United States Environmental Protection Agency (EPA). 2022. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed October 21, 2022.

California GHG Inventory

As the second largest emitter of GHG emissions in the United States, California contributes a large quantity (481.2 MMT CO_2e in 2019) of GHG emissions to the atmosphere.[36] Anthropogenic CO_2 are largely byproducts of fossil fuel combustion and are attributable to transportation, industry/ manufacturing, electricity generation, natural gas consumption, and agriculture processes. As shown in Figure 3, in California, the transportation sector is the largest emitter at approximately 40 percent of GHG emissions, followed by industrial at approximately 21 percent of GHG emissions.[37]



Source: California Air Resources Board (ARB). 2021. California GHG Inventory.

Figure 3: California GHG Emissions by Sector in 2019

3.3 - Regulatory Environment

3.3.1 - International

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and

[36] California Air Resources Board (ARB). 2021. Current California GHG Emission Inventory Data. Website: https://ww2.arb.ca.gov/ghg-inventory-data. Accessed October 21, 2022.

[37] California Air Resources Board (ARB). 2021. California GHG Inventory. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed October 21, 2022.

socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change. On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it set binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5 percent against 1990 levels over the 5-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol committed them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol placed a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the United States Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. There have been several meetings held to address international climate change commitments post Kyoto, the most notable of which were held by the United Nations Climate Change Committee. The meetings are gradually gaining consensus among participants on individual climate change issues. At the Climate Summit hosted by the United Nations in September 2014, heads of government, business, and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Paris Climate Change Agreement. Parties to the Convention reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a 4-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review. The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st Session of the Convention Conference of the Parties, or COP 21.[38]

On June 1, 2017, former President Donald Trump announced the decision for the United States to withdraw from the Paris Climate Accord.[39] On January 20, 2021, President Biden announced the

[38] Center for Climate and Energy Solutions (C^2ES). 2015. Outcomes of the U.N. Climate Change Conference. Website: http://www.c2es.org/international/negotiations/cop21-paris/summary. Accessed October 24, 2022.

[39] The White House. Statement by former President Trump on the Paris Climate Accord. Website: https://it.usembassy.gov/statement-president-trump-paris-climate-accord/. Accessed October 24, 2022.

decision for the United States to re-commit to the Paris Climate Accord.[40] The United States officially became a party to the Agreement once again on February 19, 2021, after a mandatory 30-day waiting period.[41] California remains committed to combating climate change through programs aimed to reduce GHGs.[42]

3.3.2 - Federal Regulations

The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including CO_2, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act. These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator findings.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light-duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. It required these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light-duty vehicles for model

[40] The White House. 2021. Statement by President Biden: Paris Climate Agreement. Website: https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/. Accessed October 24, 2022.
[41] United States Department of State. 2021. The United States Officially Rejoins the Paris Agreement. Website: https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/. Accessed October 24, 2022.
[42] California Air Resources Board (ARB). 2017. New Release: California and China Team Up to Push for Millions More Zero-Emission Vehicles. Website: https://ww2.arb.ca.gov/news/california-and-china-team-push-millions-more-zero-emission-vehicles. Accessed October 24, 2022.

years 2017 through 2025 in August 2012.[43] The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the United States Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies proposed engine and vehicle standards that began in the 2014 model year and achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

The State of California has received a waiver from the EPA to have separate, stricter corporate average fuel economy standards. Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. To manage the State's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975. It should be noted that the EPA recently rescinded California's waiver for its GHG and Zero-Emission Vehicle (ZEV) mandates; however, all ARB standards are still in effect at the time of this writing.[44] In September 2020, Governor Gavin Newsom issued Executive Order N-79-20, which requires sales of all new passenger vehicles to be zero-emission by 2035 and additional measures to eliminate harmful emissions from the transportation sector.

Consolidated Appropriations Act (Mandatory GHG Reporting). The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons (MT) or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010, which established thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final

[43] United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. August. Website: https://www.nhtsa.gov/document/fact-sheet-epa-and-nhtsa-propose-standards-reduce-greenhouse-gas-emissions-and-improve. Accessed October 24, 2022.

[44] Beveridge & Diamond Professional Corporation. 2019. EPA Rescinds California's Authority to Regulate Vehicle Tailpipe Greenhouse Gas Emissions and to Implement a Zero-Emission Vehicle Program. September 23. Website: https://www.bdlaw.com/publications/epa-rescinds-californias-authority-to-regulate-vehicle-tailpipe-greenhouse-gas-emissions-and-to-implement-a-zero-emission-vehicle-program/. Accessed October 24, 2022.

rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for CO_2 emissions for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour (MWh) based on the performance of widely used natural gas combined cycle technology.

Cap-and-Trade. Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. There is no federal GHG Cap-and-Trade Program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Western Climate Initiative partner jurisdictions developed a comprehensive initiative to reduce regional GHG emissions to 1990 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Québec. Currently only California and Québec are participating in the Cap-and-Trade Program.[45]

3.3.3 - California

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as the Title 24 and Title 20 energy standards, was originally adopted for other purposes, such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the United States District Court for the District of Columbia in 2011.[46] The standards were to be phased in during the 2009 through

[45] Center for Climate and Energy Solutions (C^2ES). 2015. Cap-and-Trade Basics. Website: https://www.c2es.org/content/cap-and-trade-basics/. Accessed October 24, 2022.

[46] California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed October 24, 2022.

2016 model years.[47] It should be noted that the EPA recently rescinded California's waiver for its GHG and ZEV mandates; however, all ARB standards are still in effect at the time of this writing.[48]

The second phase of the implementation for the Pavley Bill was incorporated into Amendments to the LEV Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation is anticipated to reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.[49]

Assembly Bill 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. Greenhouse gases, as defined under AB 32, include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs.

The ARB is the State agency charged with monitoring and regulating sources of GHGs. The ARB approved the 1990 GHG emissions level of 427 MMT CO_2e on December 6, 2007.[50] Therefore, to meet the State's target, emissions generated in California in 2020 were required to be equal to or less than 427 MMT CO_2e. Emissions in 2020 in a Business as Usual (BAU) scenario were estimated to be 596 MMT CO_2e, which does not account for reductions from AB 32 regulations.[51] At that rate, a 28 percent reduction was required to achieve the 427 MMT CO_2e 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. Under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels.[52] On July 11, 2018, ARB announced that the State has met its target of reducing GHG emissions to 1990 levels.[53]

California Air Resources Board Scoping Plan. The ARB Climate Change Scoping Plan (Scoping Plan) contains measures that were designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32.[54] The Scoping Plan identified recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions

[47] California Air Resources Board (ARB). Advanced Clean Cars Summary. Website: https://ww2.arb.ca.gov/sites/default/files/2019-12/acc%20summary-final_ac.pdf. Accessed October 24, 2022.
[48] Beveridge & Diamond Professional Corporation. 2019. EPA Rescinds California's Authority to Regulate Vehicle Tailpipe Greenhouse Gas Emissions and to Implement a Zero-Emission Vehicle Program. September 23.
[49] California Air Resources Board (ARB). 2011. Status of Scoping Plan Recommended Measures.
[50] California Air Resources Board (ARB). 2007. Staff Report. California 1990 Greenhouse Gas Level and 2020 Emissions Limit. November 16, 2007.
[51] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan.
[52] California Air Resources Board (ARB). 2014 Edition BAU Emissions Projection. Website: https://ww2.arb.ca.gov/ghg-bau. Accessed October 24, 2022.
[53] California Air Resources Board. 2018. Climate Pollutants Fall Below 1990 Levels for First Time. Website: https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levels-first-time. Accessed October 24, 2022.
[54] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan.

target—each sector had a different emission reduction target. Most of the measures targeted the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target included:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a Statewide renewables energy mix of 33 percent.
- Developing a California Cap-and-Trade Program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS).
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. Implementation of the capped strategies is calculated to achieve a sufficient number of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[55]

The ARB approved the First Update to the Scoping Plan on May 22, 2014. The First Update builds upon the initial Scoping Plan with new strategies and recommendations.

The elements of the framework proposed to achieve the emission reduction targets are as follows:

- Transportation
  - Achieve 100 percent ZEV sales of light-duty vehicles by 2035 and medium heavy-duty vehicles by 2040.
  - Achieve a 20 percent zero-emission target for the aviation sector.
  - Prioritize and increase funding for clean transportation equity programs.
  - Accelerate the reduction and replacement of fossil fuel production and consumption in California.
  - Increase the stringency and scope of the LCFS.
  - Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below by 2045.

[55] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan.

- Clean Electricity Grid
  - Per SB 350, double Statewide energy efficiency savings by 2030.
  - Use long-term planning processes to support grid reliability and expansion of renewable and zero-carbon development.
  - Per SB 100 and 1020, achieve 90 percent, 95 percent, and 100 percent renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively.
- Sustainable Manufacturing and Buildings
  - Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need.
  - Implement SB 905.
  - Develop a net-zero cement strategy to meet SB 956 targets for the GHG intensity of cement use.
  - Leverage energy efficiency and low carbon hydrogen programs.
  - Prioritize most vulnerable residents with the majority of funds in the new $922 million Equitable Building Decarbonization program.
  - Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed by 2030.
  - Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030.
  - Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440.
- Carbon Dioxide Removal and Capture
  - Implement SB 905.
  - Achieve the 85 percent reduction in anthropogenic sources below 1990 levels per AB 1279 by incorporating Carbon Capture and Storage (CCS) into sectors and programs beyond transportation.
  - Evaluate and propose the role for CCS in cement decarbonization and as part of hydrogen peroxide pathways.
  - Explore carbon capture application for zero-carbon power for reliability needs per SB 100.
- Short-Lived Climate Pollutants (Non-Combustion Gases)
  - Install anaerobic digesters to maximize air and water quality protection, maximize biomethane capture, and direct biomethane to specific sectors.
  - Increase alternative manure management projects.
  - Expand markets for products made from organic waste.
  - Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data.
  - Convert large HFC emitters to the lowest practical global warming potential (GWP) technologies.
- Natural and Working Lands
  - Implement AB 1757 and SB 27.
  - Implement the Climate Smart Strategy.

- Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025.
- Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045.
- Restore 60,000 acres of Delta wetlands annually by 2045.
- Increase urban forestry investment annually by 200 percent, relative to business as usual.

Senate Bill 375—the Sustainable Communities and Climate Protection Act of 2008. Senate Bill (SB) 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires Metropolitan Planning Organizations (MPOs) to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Senate Bill 32 and the 2017 Climate Change Scoping Plan Update. The Governor signed SB 32 in September 2016, giving the ARB the statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states that "In adopting rules and regulations to achieve the maximum technologically feasible and cost effective greenhouse gas emissions reductions authorized by this division, the State [air resources] board shall ensure that Statewide greenhouse gas emissions are reduced to at least 40 percent below the Statewide greenhouse gas emissions limit no later than December 31, 2030." The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
   - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
   - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard
   - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
   - Maintaining existing GHG standards for light- and heavy-duty vehicles.
   - Put 4.2 million ZEVs on the roads.
   - Increase ZEV buses, delivery, and other trucks.
4. Sustainable Freight Action Plan
   - Improve freight system efficiency.
   - Maximize use of near-zero-emission vehicles and equipment powered by renewable energy.
   - Deploy over 100,000 zero-emission trucks and equipment by 2030.

5. Short-Lived Climate Pollutant Reduction Strategy
   - Reduce emissions of methane and HFCs 40 percent below 2013 levels by 2030.
   - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
   - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
   - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
   - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements of longer than 5 years for energy from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to, publicly owned utilities, of 1,100 pounds CO_2 per MWh.

Senate Bill 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established an RPS target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23.

Senate Bill 350—Clean Energy and Pollution Reduction Act of 2015. The legislature recently approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies toward a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50 percent reduction in the use of

petroleum Statewide were removed from the Bill due to opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce Statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024 and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrified transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.[56]

Senate Bill 100—The 100 Percent Clean Energy Act of 2018. The legislation directs the CPUC, CEC, and the ARB to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. This Act amends Sections 399.11, 399.15, and 399.30 of, and adds Section 454.53 to, the Public Utilities Code relating to energy.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the State and guide the actions of State agencies.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an Executive Order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07—Low Carbon Fuel Standard. The Governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a Statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, ARB, University of California, and other agencies to develop and propose protocols for measuring the "lifecycle carbon intensity" of transportation fuels. The ARB adopted the LCFS on April 23, 2009.

[56] California Legislative Information (California Leginfo). 2015. Senate Bill 350 Clean Energy and Pollution Reduction Act of 2015. Website: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350. Accessed October 24, 2022.

The LCFS was subject to legal challenge in 2011. Ultimately, on August 8, 2013, the Fifth District Court of Appeal (California) ruled that the ARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two Executive Orders of the ARB approving LCFS regulations promulgated to reduce GHG emissions be set aside. However, the Court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while ARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, the ARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The second public hearing for the new LCFS regulation was held on September 24, 2015, and September 25, 2015, where the LCFS regulation was adopted. The Final Rulemaking Package adopting the regulation was filed with the Office of Administrative Law (OAL) on October 2, 2015. The OAL approved the regulation on November 16, 2015.[57]

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy[58] was adopted, which is the ". . . first Statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an Executive Order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's Executive Order aligned California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Executive Order sets a new interim Statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MT CO_2e. The Executive Order also requires the State's climate adaptation plan to be updated every 3 years and for the State to continue its climate change research program, among other provisions.

Executive Order N-79-20*.* Executive Order N-79-20 directs the State to require that, by 2035, all new cars and passenger trucks sold in California be zero-emission vehicles.[59]

[57] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: https://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed October 24, 2022.
[58] California Natural Resources Agency. 2009. 2009 California Climate Adaptation Strategy.
[59] Executive Department State of California. 2020. Executive Order N-79-20.

ARB Advanced Clean Cars II rule. Adopted by the ARB in August 2022, the Advanced Clean Cars II regulation supports the implementation of Executive Order N-79-20 and requires that by 2035, all new passenger cars, trucks and SUVs sold in California will be zero emissions.[60]

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

California Code of Regulations Title 13: Motor Vehicles. California Code of Regulations, Title 13: Division 3, Chapter 10, Article 1, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.[61] This measure seeks to reduce public exposure to DPM and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. Any person that owns, operates, or causes to operate any diesel-fueled commercial motor vehicle must not allow a vehicle to idle for more than 5 consecutive minutes at any location or operate a diesel-fueled auxiliary power system for greater than 5 minutes at any location when within 100 feet of a restricted area.

California Code of Regulations, Title 13: Division 3, Chapter 9, Article 4.8, Section 2449: General Requirements for In-Use Off-Road Diesel-Fueled Fleets. This measure regulates NO_X, DPM, and other criteria pollutant emissions from in-use, off-road diesel-fueled vehicles. This measure also requires each fleet to meet fleet average requirements or demonstrate that it has met "best available control technology" requirements. Additionally, this measure requires medium and large fleets to have a written idling policy that is made available to operators of the vehicles informing them that idling is limited to 5 consecutive minutes or less.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency

[60] California Air Resource Board (ARB). Proposed Advanced Clean Cars II Regulations. Website: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii. Accessed October 20, 2022.

[61] California Air Resources Board (ARB). Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Website: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about. Accessed October 24, 2022.

reduces fossil fuel consumption and decreases GHG emissions. The current version of Title 24 adopted by the CEC went into effect on January 1, 2020. CEC recently approved the latest 2022 Energy Code, which will become effective on January 1, 2023.[62]

Title 24 California Green Building Standards Code. California Code of Regulations Title 24 Part 11 code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the current version of the 2019 California Green Building Code Standards Code (CALGreen) that became effective January 1, 2020.[63] CEC recently approved the latest 2022 CALGreen Code, which will become effective on January 1, 2023.[64] Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected for Ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed the California Department of Water Resources to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems.
- Incentives for graywater usage.
- Improvements in on-site stormwater capture.
- Limits on the portion of landscapes that can be planted with high water use plants.
- Reporting requirements for local agencies.

Senate Bill 97 and the CEQA Guidelines Revisions. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. SB 97 states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

The 2010 CEQA Amendments first guided public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The 2010 CEQA Amendments fit within the

[62] California Energy Commission (CEC). 2021. 2022 Building Energy Efficiency Standards. Website: https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency. Accessed September 2, 2022.
[63] State of California. 2020. California Green Building Standards Code (CALGreen).
[64] California Energy Commission (CEC). 2021. CEC Approves 2022 CALGreen Building Standards Code. Website: http://calenergycommission.blogspot.com/2021/10/cec-approves-2022-calgreen-building.html. Accessed September 2, 2022.

existing CEQA framework by amending existing CEQA Guidelines to reference climate change. The 2010 CEQA Amendments also revised Appendix F of the CEQA Guidelines, which focuses on energy conservation, and the sample environmental checklist in Appendix G was amended to include GHG questions.

The 2018 CEQA Amendments expanded upon the previous guidance by specifying that:

- The lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to Statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and State regulatory schemes.
- In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.
- A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision-makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

California Supreme Court GHG Ruling

In a November 30, 2015, ruling, the California Supreme Court, in *Center for Biological Diversity v. California Department of Fish and Wildlife* on the Newhall Ranch project, concluded that whether the project was consistent with meeting Statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25-27 of the ruling to address this issue summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with Statewide goals (page 25).
- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities" (page 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as Climate Action Plans (CAPs) or

GHG emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (page 26).

- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (page 27).

The Supreme Court was concerned that new development may need to do more than existing development to reduce GHGs to demonstrate that it is doing its fair share of reductions.

3.3.4 - South Coast Air Quality Management District

The SCAQMD provides multiple options in its 2016 SCAQMD CEQA Guidelines for operational GHG emissions generation significance thresholds.

The proposed project is within the SoCAB. The SCAQMD works directly with SCAG, local governments, and State and federal agencies to attain and maintain air quality standards. The applicable air quality plan for the project is the SCAQMD's 2016 AQMP.

SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a GHG Reduction Program for GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

3.3.5 - Local

City of Riverside General Plan

The City's General Plan and the Chapter of "Open Space and Conservation Element" provides policies that aim to conserve energy and reduce GHG emissions.[65]

Objective OS-8	Encourage the efficient use of energy resources by residential and commercial users.
Policy OS-8.1	Support the development and use of non-polluting, renewable energy sources.

[65] City of Riverside General Plan. 2012. Open Space and Conservation Element.

Policy OS-8.2 Require incorporation of energy conservation features in the design of all new construction and substantial rehabilitation projects pursuant to Title 24, and encourage the installation of conservation devices in existing developments.

Policy OS-8.3 Encourage private energy conservation programs that minimize high energy demand and that use alternative energy sources.

Policy OS-8.4 Incorporate solar considerations into development regulations that allow existing and proposed buildings to use solar facilities.

Policy OS-8.6 Require all new development to incorporate energy efficient lighting, heating and cooling systems pursuant to the Uniform Building Code and Title 24.

Policy OS-8.7 Encourage mixed use development as a means of reducing the need for auto travel.

Policy OS-8.8 Encourage the use of clean burning fuels and solar energy for space and water heating purposes and explore ways to participate in California New Solar Homes Partnerships.

Policy OS-8.9 Encourage construction and subdivision design that allows the use of solar energy systems.

Policy OS-8.10 Support the use of public transportation, bicycling and other alternative transportation modes in order to reduce the consumption of nonrenewable energy supplies.

Policy OS-8.11 Support public education programs for City residents and businesses to provide information on energy conservation and on alternatives to nonrenewable energy sources.

Policy OS-8.12 Require bicycle parking in new nonresidential development.

Objective OS-9 Encourage the efficient use of energy resources by the City of Riverside.

Policy OS-9.1 Encourage the most energy efficient design for local government facilities and equipment consistent with reasonable rate of return and the recognition of the environmental benefits from energy conservation.

City of Riverside General Plan EIR

The air quality impacts of implementation of the General Plan were evaluated in the General Plan EIR. The General Plan EIR provides the following relevant standard design measures to address impacts related to GHG emissions.[66]

SDM Air 8 To reduce GHG emissions through reduced energy consumption and the procurement of lower-emission resources, Riverside Public Utilities (RPU) shall join the California Climate Action Registry (www.climateregistry.org) and comply with GHG regulations developed by the California Air Resources Board (ARB) and the California Energy Commission (CEC) pursuant to AB 32. RPU shall perform yearly GHG inventories according to the Power/Utility Protocol to identify and implement conservation measures and resource procurement practices that will reduce its GHG emissions.

SDM Air 9 To reduce GHG emissions, the City's Environmental Relations Manager, working in conjunction with RPU shall develop, enhance, and/or implement programs to reduce energy consumption. Some examples of programs may be, but are not limited to:

- Replacing incandescent light bulbs with compact fluorescent lamps;
- Participating in the Energy Star Programs;
- Promotion of the use of energy efficient equipment and vehicles;
- Promotion of commercial and residential solar energy rebate programs; and
- Performance based, commercial/industrial energy efficiency rebate program.

The mitigation measures that would reduce GHG emissions and are relevant to the project listed above are directed at the City-level and are not applicable at the individual development level; therefore, no GHG measures listed in the General Plan EIR would be applicable to the proposed project. be

Hunter Business Park Specific Plan

The intent of the Specific Plan is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and business of the City of Riverside.[67] The project site is zoned for Business and Manufacturing Park Zone. This zone provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials, and retail related to manufacturing.

[66] City of Riverside. 2007. General Plan and Supporting Documents EIR, Section 5.3 Air Quality.
[67] City of Riverside. 1988. Hunter Business Park Specific Plan. April.

Riverside Climate Action Plan

The City of Riverside adopted the Economic Prosperity Action Plan and CAP in January 2016 for the development and implementation of policies and programs to reduce GHG emissions within the City.[68] The CAP is based on the directives of AB 32 and Executive Order S-3-05 and uses a GHG emission inventory from the year 2010 to establish the City's baseline emissions for the purposes of assessing future GHG reduction goals and forecasting GHG emissions in the future. The CAP stated that, by 2020, the Statewide and local measures together would reduce the City's community GHG emissions from the 2020 BAU condition by approximately 39 percent or 67,668 MT CO_2e (from 173,195 to 105,527 MT of CO_2e). This reduction is equivalent to 20 percent decrease below the 2010 levels, which exceeds the 15 percent reduction target of the year 2020.

The City's CAP presented the following strategies that are relevant to the proposed project.

Measure SR-1: Renewables Portfolio Standard

Utilities must secure 33 percent of their power from renewable sources by 2020. Through a series of increasingly stringent bills first enacted in 2002, California has placed requirements on electric utilities to procure a portion of their energy from renewable sources. The standard, known as the Renewables Portfolio Standard (RPS), applies to investor-owned utilities, publicly owned utilities, electricity service providers, and community choice aggregators. Therefore, RPU must meet 40 percent of retail sales from renewables by 2035.

Measure SR-2: 2013 California Building Energy Efficiency Standards (Title 24, Part 6)

Mandatory energy efficiency standards for buildings. Building energy efficiency standards are designed to ensure new and existing buildings achieve energy efficiency and preserve outdoor and indoor environmental quality. Renewable energy is likely to play a major part in meeting those goals, but Title 24 will continue to impose more rigorous energy efficiency requirements over time. Measure SR-2 conservatively assumes that Title 24 will require a 30 percent improvement in energy efficiency over the current (2013) standard by 2035; it does not account for the renewable energy contribution toward zero-net-energy, as that is accounted for by other CAP measures.

Measure SR-4: HERO Commercial Program

Financing for business owners to make energy efficient, renewable energy, and water conservation improvements. The Home Energy Renovation Opportunity (HERO) Program is a public-private partnership administered by the Western Riverside Council of Governments (WRCOG), offering financing to business owners in the subregion for the installation of energy efficient, renewable energy, and water conservation improvements. This Property Assessed Clean Energy (PACE) financing program offers a continually expanding list of eligible products for financing and an ever-growing cadre of trained contractors who can assist property owners with selecting and installing eligible products. The HERO program is helping RPU meet its obligation under California's Assembly Bill (AB) 2021, which requires public energy utilities (including RPU) to reduce energy use by its customers by 10 percent over 10 years (to 2020). It also supports RPU's commitment to expanding solar installations in the City as an administrator of Senate Bill (SB) 1 that funds former Governor

[68] City of Riverside. 2016. Economic Prosperity Action Plan and Climate Action Plan. January.

Schwarzenegger's Million Solar Roofs initiative, with a Statewide goal to install 3,000 megawatts of solar energy systems, and establish solar energy systems as a viable mainstream option for commercial buildings.

In 2002, California adopted AB 1493, referred to as "Pavley I," which directed the ARB to develop fuel efficiency standards for passenger vehicles in California by 2005. Through a series of rulings, ARB and the federal government agreed on federal standards that began in 2009 and increased through 2016. The ARB and the federal government are currently finalizing fuel efficiency standards that continue to become increasingly stringent from 2017 through 2025. Building from Pavley 1, Executive Order S-1-07, known as the LCFS, requires the carbon intensity of California's transportation fuel to be reduced by at least 10 percent by 2020.

Measure SR-6: Expansion of Metrolink

Identified in SCAG's 2012 RTP/SCS, the Metrolink Perris Valley Line will be extended from Riverside to Perris in Western Riverside County, allowing for alternative transportation, reducing VMT and GHG emissions in Western Riverside County. Service along this route is expected to begin in 2015.

Measure SR-8: Express Lanes

Additional express lanes added along major freeways in Western Riverside County. SCAG's analysis of critical corridors found inter-county trips account for over 50 percent of all trips. Ongoing congestion issues—and therefore increased idle time and GHG emissions—have led to SCAG proposing increasing the network of express lanes that connect counties, including Riverside County. Extension of express lanes along State Route (SR) 91 and Interstate-15 (I-15) would be operational by 2017 and 2020 respectively, and would lead to reduced congestion according to regional transportation modeling.

Measure SR-9: Congestion Pricing

Expansion of the toll lanes along the SR-91. Transportation Demand Management (TDM) consists of methods used to encourage transportation other than single-occupancy vehicle travel at peak traffic times. TDM strategies are generally categorized as "soft" or "hard" strategies. Soft mechanisms are incentive-based and include measures like preferential parking for carpoolers, while hard mechanisms are associated with pricing or an enforceable policy or ordinance.

Measure SR-10: Telecommuting

Work arrangement in which employees do not commute to a central place of work. Telecommuting is a soft TDM mechanism that has increased considerably over the past decade. According to SCAG, telecommuting could increase even more by 2020 (to 5 percent of workers in the region) and 2035 (to 10 percent of workers), from the current 2.6 percent that currently telecommute.

Measure SR-11: Goods Movement

Efficient movement of goods through inland Southern California. Southern California is a major hub for importing and exporting goods. SCAG estimates that over $2 trillion in cargo was moved across the region in 2010 alone, much of which travels through inland Southern California, including Western Riverside County.

However, the many warehouses and distribution facilities employ non-passenger vehicles that contribute to GHG emissions. At the State level, more standards are being implemented to increase vehicle efficiencies and the 2012 RTP/SCS and AQMD are supporting greater penetration of low emission trucks in the region. While goods will continue to be moved to support local and regional economies, electrification and other low emission technologies installed in vehicles can reduce the GHG emissions of goods movement.

Measure SR-12: Electric Vehicle Plan and Infrastructure

Facilitate EV use by providing necessary infrastructure. SCAG has developed a regional plug-in electric vehicle (PEV) readiness plan, and WRCOG has a similar subregional plan for PEV readiness. Together, these plans identify viable locations for charging stations, changes to development codes, and other strategies to encourage the purchase and use of electric vehicles. PEV chargers are already being installed in the WRCOG subregion. Through these plans and outreach efforts, alternative fuel vehicles will be promoted as one strategy to reduce GHG emissions associated with passenger vehicles.

Measure SR-13: Construction and Demolition Waste Diversion

Meet mandatory requirement to divert 50 percent of Construction and Demolition (C&D) waste from landfills by 2020 and exceed requirement by diverting 90 percent of C&D waste from landfills by 2035. Effective July 1, 2014, CALGreen, the State's Green Building Standards Code, requires jurisdictions to divert a minimum of 50 percent of their non-hazardous C&D waste from landfills. Reductions for the year 2020 assume that 100 percent of new construction and applicable retrofit projects meet the minimum diversion rates established by the State. For 2035, this measure assumes that C&D waste diversion would increase to 90 percent for new construction and retrofit projects. This increase is in line with Green Accountability Performance (GAP) Goal 6.A which aims to develop measures to encourage that a minimum of 90 percent of recoverable waste from all construction sites be recycled throughout Riverside by 2015, beginning with 40 percent in 2010 and increasing by 10 percent each year thereafter.

Measure T-19: Alternative Fuel and Vehicle Technology and Infrastructure

Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers.

Measure T-20: Eco- Corridor/Green Enterprise Zone

Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.

SECTION 4: MODELING PARAMETERS AND ASSUMPTIONS

4.1 - Model Selection and Guidance

Regional air pollutant emissions are composed of those on-site and off-site construction and operational emissions generated from all facets of the proposed project. Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant over a given time or activity, for example, grams of NO_X per vehicle mile traveled or grams of NO_X per horsepower hour of equipment operation. The activity factor is a measure of how active a piece of equipment is and can be represented as the amount of material processed, elapsed time that a piece of equipment is in operation, horsepower of a piece of equipment used, the amount of fuel consumed in a given amount of time, or VMT per day. The ARB has published emission factors for on-road mobile vehicles/trucks in the Emission Factor (EMFAC) mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) was developed in cooperation with the SCAQMD and other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses. To evaluate the proposed project's air quality impacts, regional construction and operational emissions reported in this analysis were modeled using CalEEMod Version 2020.4.0.[69] Air dispersion modeling was utilized to assess the proposed project's potential health risks using the American Meteorological Society/EPA Regulatory Model (AERMOD), which is the air dispersion model accepted by the EPA and the SCAQMD for preparing Health Risk Assessments (HRAs). Health risk calculations were completed using HARP2. EMFAC 2021 inventory data was utilized to calculate mobile source emissions for the HRA, as well as energy consumption from construction and operation of the proposed project.

4.2 - Air Pollutants and GHGs Assessed

4.2.1 - Criteria Pollutants Assessed

The following air pollutants are assessed in this analysis:

- Reactive organic gases (ROG)
- Nitrogen oxides (NO_X)
- Carbon monoxide (CO)
- Sulfur oxides (SO_X)
- Particulate matter less than 10 microns in diameter (PM_{10})
- Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)

[69] California Emissions Estimator Model (CalEEMod) Version 2022.1 was released for public use in May 2022, however, this version is still in soft release and not officially designated as the recommended emission model. Therefore, CalEEMod Version 2020.4.0 is used in this analysis.

Note that the proposed project would emit ozone precursors ROG and NO_X. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

The proposed project would emit ultrafine particles. However, there is currently no standard separate from the $PM_{2.5}$ standards for ultrafine particles and there is no accepted methodology to quantify or assess the significance of such particles.

4.2.2 - Toxic Air Containments Assessed

In this analysis, DPM would be assessed as exhaust emissions of PM_{10} to evaluate the potential health risks resulting from the use of diesel trucks during the operation of the proposed project. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel, and the health effects are presented in Section 2.2.3, Toxic Air Containments.

4.2.3 - Greenhouse Gases Assessed

This analysis is restricted to GHGs identified by AB 32, which include carbon dioxide, methane, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The project may emit GHGs that are not defined by AB 32. For example, the project may generate aerosols through emissions of DPM from the vehicles and trucks that would access the project site. Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high GWP; however, the IPCC states that it has a low level of scientific certainty.[70]

Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

The proposed project would emit NO_x and VOCs, which are ozone precursors. Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain GHGs defined by AB 32 would not be emitted by the proposed project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the proposed project would emit perfluorocarbons or sulfur hexafluoride.

[70] Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller [eds.]).

4.3 - Modeling Assumptions

4.3.1 - Construction

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM_{10}) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Off-site emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM_{10} and $PM_{2.5}$).

Construction activities for activities occurring on the 13.60-acre project site would consist of demolition of existing structures and pavement, site preparation, grading, building construction, paving, and architectural coating of the inside and outside of the building. In addition, frontage improvements for approximately 0.56 acre would involve grading, paving, and architecture coating. For each construction activity, the construction equipment operating hours and numbers represent the average equipment activity over the duration of the activity. A conceptual construction schedule is provided in Table 5 that presents the duration for each construction activity. Table 6 presents the number of assumed construction equipment along with hours of operation per day, horsepower, and load factor. Where project-specific information was not available or unknown, default assumptions were used to complete emissions modeling. Where the CalEEMod default schedule was compressed to match applicant provided information, the construction equipment usage was increased proportionally to retain the CalEEMod default horsepower (hp) hours (see Appendix A). The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, the horsepower is the power of an engine—the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

The anticipated construction schedule, as shown in Table 5, reflects the construction start date and construction phase durations assumed for the purposes of this environmental analysis. Based on applicant provided information, construction would be completed in one phase, beginning in fourth quarter 2023. The project is expected to be operational in the third quarter of 2024. The construction schedule used in the analysis represents a “worst-case” analysis scenario since emission factors for construction equipment decrease as the analysis year increases due to improvements in technology and compliance with more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by the CEQA Guidelines.

Table 5: Construction Schedule

Construction Activity	Conceptual Construction Schedule		Working Days per Week	Working Days
	Start Date	End Date		
Project Site (Scenarios 1 and 2)				
Demolition	11/20/2023	12/15/2023	5	20
Grading	11/20/2023	12/15/2024	5	20
Building Construction	12/18/2024	09/20/2024	5	200
Paving	07/29/2024	08/23/2024	5	20
Architectural Coating	08/26/2024	09/20/2024	5	20
Frontage Improvements (Scenarios 1 and 2)				
Grading	11/27/2023	11/28/2023	5	2
Paving	12/06/2023	12/12/2023	5	5
Architectural Coating	12/13/2023	12/19/2023	5	5
Source: CalEEMod Output (Appendix A).				

A summary of the on-site, off-road construction equipment usage assumptions used to estimate emissions is presented in Table 6. The building construction phase is shortened compared with the CalEEMod default schedule, and the equipment numbers or usage hours are therefore increased to have the same horsepower hours as that of the default CalEEMod equipment usage. The usage adjustment is included in the appendix.

Table 6: Project Construction Equipment Assumptions

Construction Activity	Equipment	Equipment Amount	Average Hours per Day	Horsepower	Load Factor
Project Site Construction (Scenarios 1 and 2)					
Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Excavators	3	8	158	0.38
	Rubber Tired Bulldozers	2	8	247	0.4
Grading	Excavators	2	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Bulldozers	1	8	247	0.4
	Scrapers	2	8	367	0.48
	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2
	Generator Sets	1	8	84	0.74

Construction Activity	Equipment	Equipment Amount	Average Hours per Day	Horsepower	Load Factor
	Tractors/Loaders/Backhoes	3	7	231	0.37
	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48
Frontage Improvements (Scenarios 1 and 2)					
Grading	Graders	1	6	187	0.41
	Rubber Tired Bulldozers	1	6	247	0.40
	Tractors/Loaders/Backhoes	1	7	97	0.37
Paving	Pavers	1	7	130	0.42
	Rollers	1	7	80	0.38
	Cement and Mortar Mixers	4	6	9	0.56
	Tractors/Loaders/Backhoes	1	7	97	0.37
Architectural Coating	Air Compressors	1	6	78	0.48

Source: CalEEMod Output (Appendix A).

A summary of the construction-related vehicle trips is shown in Table 7. Based on project applicant provided information, during site preparation and grading would require up to 24,000 net cubic yards of fill to be exported. CalEEMod default values for trip lengths and vehicle fleets were used. Note that the total number of off-site construction vehicle trips would not necessarily occur on the same day since construction activities would vary each day during the construction period.

Based on applicant provided information, the proposed project would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the architecture coating area was reduced 50 percent in the modeling to represent minimum coating needed for the proposed project.

Table 7: Construction Off-site Trips

Construction Activity	Worker (Trips per day)	Vendor (Trips per day)	Haul (Trips per Day)
Project Site Construction (Scenario 1)			
Demolition	15	0	1,410
Grading	20	0	3,000
Building Construction	251	98	0
Paving	15	0	0

Construction Activity	Worker (Trips per day)	Vendor (Trips per day)	Haul (Trips per Day)
Architectural Coating	50	0	0
Project Site Construction (Scenario 2)			
Demolition	15	0	1,410
Grading	20	0	3,000
Building Construction	248	97	0
Paving	15	0	0
Architectural Coating	50	0	0
Frontage Improvements (Scenarios 1 and 2)			
Grading	8	0	0
Paving	18	0	0
Architectural Coating	2	0	0
Source: CalEEMod Output (Appendix A).			

Fugitive Dust

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from bulldozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Every project within the SCAQMD's jurisdiction is required to comply with the requirements of SCAQMD Rule 403 (Fugitive Dust). SCAQMD Rule 403 requires fugitive dust generating activities follow Best Available Control Measures to reduce emissions of fugitive dust. As shown in Table 8, per SCAQMD guidance, the Rule 403 measures are accounted for in CalEEMod through selection of the appropriate mitigation measures in CalEEMod. Development of the proposed project would include design features which would reduce fugitive dust compared to default values. Note that CalEEMod nominally treats these design elements and conditions as "mitigation measures" despite their inclusion in the project description.

Table 8: Best Available Control Measures

Best Available Control Measure	Associated Measure in CalEEMod
Clearing and Grubbing	
02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing. 02-2 Stabilize soil during clearing and grubbing activities. 02-3 Stabilize soil immediately after clearing and grubbing activities.	Water exposed surfaces three times per day

Best Available Control Measure	Associated Measure in CalEEMod
Earthmoving Activities	
08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earthmoving activities are complete	Water exposed surfaces three times per day
Import/Export of Bulk Materials	
09-1 Stabilize material while loading to reduce fugitive dust emissions. 09-3 Stabilize material while transporting to reduce fugitive dust emissions. 09-4 Stabilize material while unloading to reduce fugitive dust emissions.	Water exposed surfaces three times per day
Landscaping	
10-1 Stabilize soils, materials, slopes	Water exposed surfaces three times per day
Staging Areas	
13-1 Stabilize staging areas during use by limiting vehicle speeds to 15 mph.	Reduce speed on unpaved roads to 15 mph
Traffic Areas for Construction Activities	
15-1 Stabilize all off-road traffic and parking areas.	Water exposed surfaces three times per day
Source of Best Available Control Measures: South Coast Air Quality Management District (SCAQMD). 2005. Rule 403—Fugitive Dust. Amended June 3, 2005. Source of associated CalEEMod measures: CalEEMod Output (Appendix A).	

4.3.2 - Operation

The major sources of operational emissions that would occur over the long-term operations of the project are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the motor vehicles that would travel to and from and within the project site. The regional emissions from the project's mobile sources were estimated using CalEEMod. The proposed project would primarily generate passenger vehicle trips from employees and visitors traveling to and from the project site; however, the proposed project would also be served with daily van and truck deliveries. An estimate of the number of vehicle trips that the proposed project would generate was presented in the Trip Generation Assessment, as shown in Table 9.

Table 9: Vehicle Trip Generation During Operations (Daily)

Vehicle Type	Actual
Scenario 1	
Passenger Cars	296
Trucks[1]	160
Scenario 1 Total Project Trips	**456**
Scenario 2	
Warehouse Land Use Trucks[1]	108
Warehouse Land Use Passenger Cars	198
Manufacturing Land Use Trucks[1]	28
Manufacturing Land Use Passenger Cars	264
Scenario 2 Total Project Trips	**598**

Notes:
[1] Based on the traffic study, trucks include 16.7 percent 2-Axle trucks, 20.7 percent 3-Axle trucks, and 62.6 percent 4-Axle trucks.
Please refer to Appendix A for the trip generation adjustment.
Source: Urban Crossroad. 2022. Palmyrita Warehouse Project Trip Generation Assessment. October.

Industrial land use projects, including warehouse projects, can be expected to have longer than average truck trip lengths compared to the default trip length in CalEEMod (7.9 miles to 18.5 miles for the SoCAB portion of Riverside County). To estimate mobile source emissions from trucks during project operations, a one-way truck trip length of 50 miles was assumed to provide a conservative estimate of emissions. The CalEEMod fleet mix is adjusted based on the number of trucks and passenger cars from Traffic Memorandum. The number of daily operational vehicle trips used to estimate emissions were the estimated daily trips presented in Table 9, with a fleet mix of 16.7 percent two-axle trucks, 20.7 percent three-axle trucks, and 62.6 percent four-or-plus axle trucks, as contained in the Trip Generation Assessment.[71]

Emission factors are assigned to the expected vehicle mix as a function of vehicle age, vehicle class, speed, and fuel type. The overall operational fleet mix used to assess emissions from the proposed project is shown below in Table 10.

Table 10: Vehicle Type Classification—Project Operational Fleet Mix

Vehicle Type	Classification	Fleet Mix Applied in the Modeling
Passenger Vehicles	LDA	59.4%
	LDT1	6.2%
	LDT2	19.1%

[71] Urban Crossroad. 2022. Palmyrita Warehouse Project Trip Generation Assessment. October.

Vehicle Type	Classification	Fleet Mix Applied in the Modeling
	MDV	15.3%
	Passenger Vehicle Fleet Mix	*100%*
Trucks	LHD1	13.2%
	LHD2	3.7%
	MHD	20.6%
	HHD	62.5%
	Truck Fleet Mix	*100%*

Notes:
HHDT = Heavy Heavy-Duty Truck
LDA = Light-Duty Auto
LDT = Light-Duty Truck
MDV = Medium-Duty Vehicle
Source: Traffic Analysis and CalEEMod default fleet mix. CalEEMod Output (Appendix A).

Other Emission Sources

Area Sources

In addition to typical mobile- and energy-source emissions, long-term operational emissions also include area-source emissions. Area-source emissions include occasional architectural coating activities for repainting and maintenance of the warehouse building associated with the proposed project. CalEEMod assumes that repainting occurs at a rate of 10 percent of the buildings per year. Therefore, on average, it is assumed that the building would be fully repainted every 10 years.

Other area-source emissions include consumer products that involve solvents that emit VOCs during use. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products associated with parking uses. Lastly, CalEEMod default emission factors for landscape maintenance equipment were used in this analysis.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant.

CalEEMod includes calculations for indirect GHG emissions for electricity consumption, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project site. For solid waste disposal, CalEEMod calculates GHG emissions generated as solid waste generated by the proposed project decomposes in a landfill.

For electricity-related emissions, CalEEMod contains default electricity intensity factors for various utilities throughout California. The default factors applied in this analysis include CO_2 (390.983 lb/MWh), CH_4 (0.033 lb/MWh), and N_2O (0.004 lb/MWh).[72]

Vegetation

The project site is currently occupied by a small-scale manufacturing facility occupied by BarretteWood USA and Barrette Outdoor Living but has no active operation. The project site has a small amount of vegetation. Therefore, there is currently some carbon sequestration occurring on-site. The project applicant proposes to plant trees and integrate landscaping into the project design, which would provide carbon sequestration. However, the number of trees to be planted is unknown and data are insufficient to accurately determine the impact that the existing landscaping has on carbon sequestration. For this analysis, it was assumed that the loss and addition of carbon sequestration that are due to the proposed project would be balanced; therefore, emissions due to carbon sequestration were not included.

Stationary Sources

Based on the information provided by the project applicant, the proposed project would include one stationary source in the form of a fire pump. The fire pump is presumably for fire protection purposes. To present a conservative estimate of emissions, the fire pump is assumed to be 250 horsepower and tested every month, which totals 50 hours per year.[73]

[72] Urban Crossroad. 2022. Palmyrita Warehouse Project Trip Generation Assessment. October.

[73] National Fire Protection Association (NFPA). 2022. Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. Website: https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=25. Accessed October 17, 2022.

SECTION 5: AIR QUALITY IMPACT ANALYSIS

This section calculates expected emissions from project construction and operation as a necessary requisite for assessing the regulatory significance of project emissions on a regional and local level. The methodology follows the SCAQMD CEQA and Federal Conformity Guidelines, which set forth recommended thresholds of significance and analysis methodologies and provides guidance on mitigating significant impacts.

5.1 - CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the proposed project must be evaluated.

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the proposed project would be considered to have significant air quality impacts.

5.1.1 - Thresholds of Significance

This analysis uses the air quality significance thresholds contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

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 nonattainment under an applicable federal or State ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Create objectionable odors affecting a substantial number of people.

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If a lead agency finds that a proposed project has the potential to exceed these air pollution thresholds, the proposed project should be considered to have significant air quality impacts. The applicable SCAQMD thresholds and methodologies are contained under each impact statement below.

5.2 - Impact Analysis

5.2.1 - Consistency with Air Quality Management Plan

Impact AIR-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis

A potentially significant impact to air quality would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The project is located within the jurisdiction of the SCAQMD. The SCAQMD is responsible for preparing air quality attainment plans to be transmitted to the ARB and the EPA for incorporation into the SIP. SCAQMD has designated this area as extreme nonattainment for ozone and serious nonattainment for $PM_{2.5}$.[74] To evaluate whether or not a project conflicts with or obstructs implementation of the applicable air quality plan (2016 AQMP for SoCAB), the SCAQMD CEQA Air Quality Handbook states that there are two key indicators. These indicators are identified by the criteria discussed below.

- **Indicator:** Whether the proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- **Indicator:** According to Chapter 12 of the SCAQMD CEQA Air Quality Handbook, the purpose of the General Plan consistency findings is to determine whether a proposed project is inconsistent with the growth assumptions incorporated into the air quality plan and, thus, whether it would interfere with the region's ability to comply with federal and California air quality standards.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis uses the following criteria to address this potential impact:

- **Criterion 1:** Proposed project's contribution to air quality violations (SCAQMD's first indictor);
- **Criterion 2:** Assumptions in AQMP (SCAQMD's second indictor); and
- **Criterion 3:** Compliance with applicable emission control measures in the AQMPs.

Criterion 1: Project's Contribution to Air Quality Violations

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.[75]

If a project's emissions do not exceed the SCAQMD regional thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$, it follows that the project's emissions would not exceed the allowable limit for each project

[74] South Coast Air Quality Management District (SCAQMD). 2016. Air Quality Management Plan.
[75] South Coast Air Quality Management District (SCAQMD). 1993. CEQA Handbook. Available at SCAQMD, 21865 Copley Drive, Diamond Bar, CA 91765.

in order for the region to attain and maintain ambient air quality standards, which is the primary goal of air quality plans. As shown in Impact AIR-2, the proposed project would not exceed the SCAQMD's regional thresholds of significance during construction or operation. Furthermore, the standard design measures shown in Impact AIR-2 would ensure this impact to be less than significant.

Criterion 2: Assumptions in AQMP

The development of emission burdens used in AQMPs to demonstrate compliance with ambient air quality standards is based, in part, on land use patterns contained within local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and the general plan was adopted prior to the applicable AQMP, then the growth of VMT and/or population generated by said project would be consistent with growth in VMT and population assumed within the AQMP.

The project site has a land use designation of Business/Office Park by the City of Riverside General Plan 2025. The project site is zoned as Business and Manufacturing Park Zone, which allows for land uses such small-scale warehouses, light manufacturing; and support commercial. The land use designation and zoning were the same at the time the 2016 AQMP was prepared, and the project does not include a general plan amendment. Therefore, the proposed project's VMT, service population, and sources of air pollutants would have been reasonably analyzed in the 2016 AQMP. Furthermore, due to the industrial nature of the project, there would be no significant impacts associated with growth inducement from development of the proposed project. It follows that the project would not result in growth and associated emissions unforeseen in any local or regional plans. Therefore, the proposed project would not be significant regarding the second criterion.

Criterion 3: Control Measures

The AQMP contains several control measures which are enforceable requirements through the adoption of rules and regulations. SCAQMD rules and regulations relevant to the proposed project are described in Section 2.4.2. The proposed project would comply with all applicable SCAQMD rules and regulations. Because of the nature of the proposed project, which includes earthmoving activity, SCAQMD Rule 403 applies. As previously mentioned, Rule 403 governs emissions of fugitive dust during construction and operation activities. The rule 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, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Compliance with this rule is achieved through application of standard BMPs. These BMPs include application of water or chemical stabilizers to disturbed soils; covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 mph; sweeping loose dirt from paved site access roadways; cessation of construction activity when winds exceed 25 mph; and establishing a permanent ground cover on finished sites. The proposed project's compliance with all applicable SCAQMD rules and regulations would result in consistency with the applicable AQMP control measures.

Summary

In summary, the proposed project would not exceed the growth assumptions in the AQMP. The proposed project would not result in a regional exceedance of criteria air pollutants. Furthermore, the proposed project would comply with all applicable SCAQMD rules and regulations. Therefore, this impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant impact.

5.2.2 - Cumulative Impacts

Impact AIR-2:	**The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. As described above, the region is currently nonattainment for ozone, PM_{10}, and $PM_{2.5}$. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the air basin, and this regional impact is a cumulative impact. In other words, new development projects (such as the proposed project) within the air basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. All new development that would result in an increase in air pollutant emissions above those assumed in regional air quality plans would contribute to cumulative air quality impacts.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the project's incremental effects would be cumulatively considerable.

Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the project would result in regional emissions that exceed the SCAQMD regional thresholds of significance for construction and operations on a project level. Projects that generate emissions below the SCAQMD significance thresholds would be considered

consistent with regional air quality planning efforts would not generate cumulatively considerable emissions.

The proposed project's regional construction and operational emissions, which include both on- and off-site emissions, are evaluated separately below. Construction and operational emissions from the proposed project were estimated using CalEEMod Version 2020.4.0. A detailed description of the assumptions used to estimate emissions and the complete CalEEMod output files are contained in Appendix A.

Cumulative Construction Emissions

Construction emissions are described as "short-term" or temporary in duration; however, they have the potential to represent a significant impact with respect to air quality. Construction of the proposed project would result in the temporary generation of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions from construction activities such as site preparation, grading, building construction, architectural coating, and asphalt paving. Fugitive dust emissions are primarily associated with earth disturbance and grading activities and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles on-site and off-site. Construction-related NO_X emissions are primarily generated by exhaust emissions from heavy-duty construction equipment, material and haul trucks, and construction worker vehicles. VOC emissions are mainly generated by exhaust emissions from construction vehicles, off-gas emissions associated with architectural coatings, and asphalt paving.

The project construction is assumed to be completed in one phase, beginning in fourth quarter 2023 and concluding in third quarter 2024. The proposed project is expected to be operational after the completion of construction. The anticipated construction schedule reflects the construction start date and the construction phase durations estimated by the project applicant. The construction schedule used in the analysis represents a reasonable worst-case analysis scenario since a delay in construction dates into the future would result in using emission factors for construction equipment that decrease as the analysis year increases, due to improvements in technology and the need to meet more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA Guidelines. For a more detailed description of the construction emissions modeling parameters and assumptions, please refer to Section 4-Modeling Parameters and Assumptions.

Table 11 presents the proposed project's maximum daily construction emissions during the entire construction duration using the worst-case summer or winter daily construction-related criteria pollutant emissions for each phase of construction. Complete CalEEMod output files are included as part of Appendix A.

Table 11: Construction Maximum Daily Emissions by Construction Year

Construction Year	Regional Pollutant Emissions (pounds per day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Scenario 1						
Maximum Daily Emissions[1]	72.28	89.64	63.30	0.24	19.33	7.45
Year	2024	2023	2023	2023	2023	2023
Season	Summer	Winter	Summer	Summer	Winter	Winter
Scenario 2						
Maximum Daily Emissions[1]	63.01	89.64	63.30	0.24	20.81	7.81
Year	2024	2023	2023	2023	2023	2023
Season	Summer	Winter	Summer	Summer	Winter	Winter
SCAQMD Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SO_X = sulfur oxides
VOC = volatile organic compound
[1] Assumes overlap of construction activities based on schedule presented in Appendix A.
The PM_{10} and $PM_{2.5}$ emissions reflect the combined exhaust and mitigated fugitive dust emissions in accordance with SCAQMD Rule 403.
Source of Table: Appendix A.

As shown in above in Table 11, the proposed project's construction emissions for Scenario 1 and Scenario 2 would not exceed the applicable significance threshold for any of the pollutants. Therefore, the proposed project would have a less than significant impact related to air quality during project construction.

Cumulative Operational Emissions

Following project construction, long-term operational emissions would be generated, resulting from daily operations. Operational emissions for land use development projects are typically distinguished as mobile-, area-, and energy-source emissions. Mobile source emissions are those associated with automobiles that would travel to and from the project site. Assumptions used to estimate mobile source emissions that would be generated by the proposed project were consistent with those presented in the project-specific traffic study. The proposed project was estimated to generate 296 daily passenger vehicle trips and 160 daily truck trips during the operation under Scenario 1, and 462 daily passenger vehicle trips and 136 daily truck trips during the operation under Scenario 2. Area-source emissions are those associated with natural gas combustion for space and water heating, landscape maintenance activities, and periodic architectural coatings. Energy-source emissions are those associated with electricity consumption and are more pertinent for GHG emissions than air

quality pollutants. Stationary source emissions are from a fire pump based on the information provided by the project applicant. Table 12 presents the project's maximum daily operational emissions.

Table 12: Maximum Daily Operational Regional Pollutants

Operational Activity	Regional Pollutant Emissions (pounds per day)[1]					
	VOC	NO_X	CO	SO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Scenario 1						
Area	6.05	<0.01	0.03	–	<0.01	<0.01
Energy	0.02	0.15	0.13	<0.01	0.01	0.01
Mobile	1.06	30.69	14.41	0.20	10.30	3.10
Stationary (Fire Pump)	0.06	0.16	0.15	<0.01	0.01	0.01
Season	Summer	Winter	Summer	Summer	Winter	Winter
Overall Maximum Daily	**7.19**	**31.00**	**14.71**	**0.21**	**10.32**	**3.12**
Scenario 2						
Area	5.57	<0.01	0.03	–	<0.01	<0.01
Energy	0.07	0.63	0.53	<0.01	0.05	0.05
Mobile	1.30	29.73	16.75	0.20	10.81	3.23
Stationary (Fire Pump)	0.06	0.16	0.15	<0.01	0.01	0.01
Season	Summer	Winter	Summer	Summer	Winter	Winter
Overall Maximum Daily	**7.00**	**30.52**	**17.45**	**0.21**	**10.86**	**3.28**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SO_X = sulfur oxides
VOC = volatile organic compound
[1] Emissions shown represent the maximum daily emissions from summer and winter seasons for each operational emission source and pollutant. Therefore, total daily operational emissions represent maximum daily emissions that could occur throughout the year.
Source of Table: Appendix A.

As shown in Table 12, the project's regional daily operational emissions for Scenario 1 and Scenario 2 would not exceed any of the SCAQMD thresholds of significance. Additionally, the proposed project would be required to comply with applicable mitigation measures identified in the City's General Plan EIR. It should be noted that this technical report fulfills the project-level requirements under General Plan EIR SDM Air 1 and SDM Air 7. Therefore, the proposed project would have less than significant impact related to air quality during project operation.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Applicable General Plan EIR Standard Design Measures

SDM Air 1 To mitigate for potential adverse impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available Urban Emissions (URBEMIS) model, or other methods sanctioned by the South Coast Air Quality Management District (SCAQMD). The analysis of construction-related air quality impacts shall be included in the development project's CEQA analysis, including recommended mitigation measures. Proposed mitigation measures may include extending the construction period as feasible in order to ensure air quality thresholds are not exceeded. The analysis shall address pollution levels near sensitive receptors and require mitigation to reduce emissions.

SDM Air 2 To mitigate for potential adverse impacts resulting from construction activities, development projects must abide by the South Coast Air Quality Management Districts (SCAQMD) Rule 403 concerning Best Management Practices (BPMs) for construction sites in order to reduce emissions during the construction phase. Measures may include:

- Development of a construction traffic management program that includes, but is not limited to, rerouting construction-related traffic off congested streets, consolidating truck deliveries, and providing temporary dedicated turn lanes for movement of construction traffic to and from site;
- Sweep streets at the end of the day if visible soil material is carried onto adjacent paved public roads;
- Wash off trucks and other equipment leaving the site;
- Replace ground cover in disturbed areas immediately after construction;
- Keep disturbed/loose soil moist at all times;
- Suspend all grading activities when wind speeds exceed 25 miles per hour;
- Enforce a 15-mile per hour speed limit on unpaved portions of the construction site.

SDM Air 4 To reduce diesel emissions associated with construction, construction contractors shall provide temporary electricity to the site to eliminate the need for diesel-powered electric generators, or provide evidence that electrical hook ups at construction sites are not cost effective or feasible.

SDM Air 5 To reduce construction-related particulate matter air quality impacts of City projects, the following measures shall be required:

1. The generation of dust shall be controlled as required by the South Coast Management District (SCAQMD).
2. Grading activities shall cease during periods of high winds (greater than 25 mph).
3. Trucks hauling soil, dirt or other emissive materials shall have their loads covered with a tarp or other protective cover as determined by the City Engineer.
4. The contractor shall prepare and maintain a traffic control plan, prepared, stamped and signed by either a licensed Traffic Engineer or a Civil Engineer. The preparation of the plan shall be in accordance with Chapter 5 of the latest edition of the Caltrans Traffic Manual and the State Standard Specifications. The plan shall be submitted for approval by the engineer at the preconstruction meeting. Work shall not commence without an approved traffic control plan.

The following mitigation measures shall be implemented to address long-term operational impacts:

SDM Air 7 As part of the CEQA process, the City shall require proposed development projects with potential operational air quality impacts to identify and mitigate those impacts. To ensure proper characterization and mitigation of those impacts, regional impacts shall be analyzed using the latest available Urban Emissions (URBEMIS) model, or other analytical method determined in conjunction with the South Coast Air Quality Management District (SCAQMD). To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, carbon monoxide (CO) Hot Spot analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation. Mitigation should reduce identified impacts to the maximum extent feasible using, among others, measures identified in the Air Quality Element Policies of the General Plan and the most recent Air Quality Management Plan (AQMP) as well as mitigation from the most recent CEQA Air Quality Handbook available at the SCAQMD. Example topics include, but are not limited to, energy conservation, reduction of Vehicle Miles Traveled (VMT), overall trip reduction, and reduction of particulate matter.

Project-specific Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant impact.

5.2.3 - Sensitive Receptors

Impact AIR-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

This impact evaluates the potential for the proposed project's construction and operational emissions to expose sensitive receptors to substantial pollutant concentration. Sensitive receptors are defined as those individuals who are sensitive to air pollution, including children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities.[76] Commercial and industrial facilities are not included in the definition because no individual employee typically remains on-site for 24 hours at a time. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_2 and CO), commercial and/or industrial facilities would be considered sensitive receptors. For the proposed project, the closest off-site sensitive receptor is a single-family home located approximately 850 feet north of the project site.

To result in a less than significant impact, the following criteria must be true:

- **Criterion 1:** Localized significance threshold (LST) assessment: emissions and air quality impacts during project construction or operation must be below the applicable LSTs to screen out of needing to provide a more detailed air quality analysis. If the proposed project exceeds any applicable LST when the mass rate lookup tables are used as a screening analysis, then project-specific air quality modeling may be performed to determine significance.
- **Criterion 2:** A CO hotspot assessment must demonstrate that the proposed project would not result in the development of a CO hotspot that would result in an exceedance of the CO ambient air quality standards.
- **Criterion 3:** TAC analysis must demonstrate that TAC emissions from construction and operations of the proposed project would not result in significant health risk impacts to existing or proposed sensitive receptors.

Criterion 1: Localized Significance Threshold Analysis—Criteria Pollutants

The localized construction and operational analyses use thresholds (i.e., LSTs) that represent maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard.[77] If the proposed project's construction or operational emissions are under those thresholds, it follows that the project would

[76] South Coast Air Quality Management District (SCAQMD). 2008. Final Localized Significance Threshold Methodology. Revised July 2008. Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed October 24, 2022.

[77] South Coast Air Quality Management District (SCAQMD). Revised October 21, 2009. Final Localized Significance Threshold Methodology, Appendix C. Website: http://www.aqmd.gov/home /regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed October 24, 2022.

not cause or contribute to an exceedance of the standard and would not expose sensitive receptors to substantial pollutant concentrations.

Localized Construction Analysis

The LST Methodology only applies to on-site emissions and states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only on-site emissions were compared with the applicable LSTs.

Utilizing the construction equipment list and associated acreages per 8-hour day provided in the SCAQMD "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds," the maximum number of acres disturbed in a day would be 3.5 acre per day. Scenario 1 and Scenario 2 have the same number of equipment and working hours, therefore, Table 13 represents the maximum daily disturbed area for both scenarios. As shown in Table 13, the maximum daily area disturbed is 3.5 acres for both scenarios, given that demolition and grading occur at the same time. Additionally, frontage construction covers 0.56 acre and could be disturbed during the same grading phase with the main site construction. To ensure a conservative analysis, 2-acre LST is utilized in the localized construction analysis.

Table 13: Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Demolition	Excavators	3	0.5	1.5
	Rubber Tired Bulldozers	2	0.5	1.0
Grading	Graders	1	0.5	0.5
	Rubber Tired Bulldozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	2	0.0	0.0
Maximum Number of Acres Disturbed Per Day				**3.5**

Notes:
Source: CalEEMod output and SCAQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.

Table 14 presents the proposed project's maximum daily on-site emissions compared with the applicable LSTs. As described previously, the closest sensitive receptor is 850 feet north from the closest project boundary, which is 259 meters. To make a conservative estimate, the LSTs have been obtained from the LST Methodology for a 2-acre project site located in Source Receptor Area (SRA) 23 where sensitive receptors are 200 meters away. As noted in Table 14, emission estimates account for implementation of SCAQMD Rule 403, and the construction vehicle trip lengths were adjusted to 0.25 mile to represent localized emissions.

Table 14: Construction Localized Significance Screening Analysis

Activity	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Scenario 1				
Maximum Daily Emissions[1]	71.55	59.26	14.70	6.02
Year	2023	2023	2023	2023
Scenario 2				
Maximum Daily Emissions[1]	71.55	59.26	14.70	6.02
Year	2023	2023	2023	2023
Localized Significance Threshold (SRA 23, 2-acre site, 200 meters)	**379**	**5,136**	**75**	**23**
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
[1] Assumes overlap of construction activities based on schedule presented in Table 5.
The PM_{10} and $PM_{2.5}$ emissions reflect the combined exhaust and mitigated fugitive dust emissions in accordance with SCAQMD Rule 403.
Source of emissions: Appendix A.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 23, 2-acre site, 200 meters from nearest sensitive receptor.

As shown in Table 14, the proposed project's maximum daily on-site emissions would not exceed the applicable SCAQMD LSTs for NO_X, CO, PM_{10} and $PM_{2.5}$. Additionally, it should be noted that LSTs based on shorter averaging periods—such as the NOX and CO LSTs—could also be applied to receptors such as industrial or commercial facilities, and not just to sensitive receptors like residences, since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours. In this analysis, the closest commercial facilities are approximately 30 meters east of the project site. The 2-acre site and 25-meter LST for NOX and CO are 170 and 883 pounds per days, and the localized NOX and CO emissions shown in Table 14 are well below the LST. Therefore, localized construction impacts related to these air pollutants would be less than significant.

Localized Operational Analysis

Similar to the construction LST analysis above, the applicable operational LSTs were obtained for a project located in SRA 23 with the nearest sensitive receptor being 200 meters away. Long-term operations would occur for the proposed project on the 13.60-acre project site, and LSTs were obtained for a 2-acre site.

As described above, the LST Methodology recommends that only on-site emissions are evaluated using LSTs. Because most of the proposed project's mobile source emissions would occur on the

local and regional roadway network away from the project site, truck trip emissions and on-site area, energy, and mobile source emissions were included in this analysis. A trip length of 0.5 mile was used in the modeling input assumptions to account for on-site emissions and from mobile sources. The 0.5-mile on-site trip length is a conservative estimate that takes into account the maximum project site distance a vehicle could travel, not the most likely or fastest route, to ensure all potential impacts are considered. Table 15 presents the project's maximum daily on-site emissions compared with the appropriate LSTs.

Table 15: Operational Localized Screening Significance Analysis

Emissions Source	Pounds per Day			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Scenario 1				
Area	0.00	0.03	0.00	0.00
Energy	0.15	0.13	0.01	0.01
On-site Mobile	2.84	3.84	0.26	0.08
Stationary	0.16	0.15	0.01	0.01
Daily Maximum	**3.15**	**4.14**	**0.28**	**0.10**
Scenario 2				
Area	0.00	0.03	0.00	0.00
Energy	0.63	0.53	0.05	0.05
On-site Mobile	2.52	4.42	0.29	0.08
Stationary	0.16	0.15	0.01	0.01
Daily Maximum	**3.31**	**5.13**	**0.35**	**0.14**
Maximum in Either Scenario				
Daily Maximum	**3.31**	**5.13**	**0.35**	**0.14**
Localized Significance Thresholds (SRA 23, 2-acre site, 200 meter)	**379**	**5,136**	**18**	**6**
Exceeds Screening Threshold?	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
Source of Emissions: Appendix A.
Source of thresholds: SCAQMD Mass Rate Lookup Tables for a 2-acre site in SRA 23 for sensitive receptors located 200 meters from the project site.

As shown in Table 15, the proposed project's maximum daily on-site operational emissions for both Scenario 1 and Scenario 2 would not exceed any applicable SCAQMD LSTs. Therefore, the proposed project's operational activities would not cause or contribute substantially to an existing or future

ambient air quality standard violation. Accordingly, the proposed project's operational criteria air pollutant and ozone precursor concentrations would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant.

Criterion 2: Carbon Monoxide Hotspot Analysis

As identified in the Traffic Analysis, the project would generate up to 46 trips in the AM peak-hour and 50 trips in the PM peak-hour for.[78] The Traffic Analysis determined that the proposed project would generate up to 456 average daily trips, including trucks and passenger cars. As described in the Traffic Analysis, project-generated passenger car and truck trips would be distributed throughout the day and would not impact local roadways at one time, further reducing the potential impacts to CO. As a result, none of the intersections near the project site would have peak-hour traffic volumes exceeding those at the intersections modeled in the 2003 AQMP. Additionally, the adjacent roadways are not located in an area where vertical or horizontal atmospheric mixing is substantially limited, such as a tunnel or overpass. Furthermore, there are no factors unique to the local meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. Therefore, the operational CO impact would be less than significant.

Criterion 3: Toxic Air Contaminants

Toxic Air Pollutants—On-site Workers

A variety of State and national programs protect workers from safety hazards, including high air pollutant concentrations.[79,80]

On-site workers are not required to be addressed through the HRA process. A document published by CAPCOA, Health Risk Assessments for Proposed Land Use Projects, indicates that on-site receptors are included in risk assessments if they are persons not employed by the project.[81] Persons not employed by the proposed project would not remain on-site for any significant period. Therefore, an HRA for on-site workers is not required or recommended. No further discussion is necessary.

Health Risk Assessment

During construction and operation, the proposed project would result in emissions of several TACs that could potentially impact nearby sensitive receptors. The SCAQMD has defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of several years. The principal TAC emission analyzed in this assessment was DPM from operation of off-road equipment and diesel-powered delivery and worker vehicles during construction and operation. DPM has been identified by the ARB as a carcinogenic substance. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{10}.

[78] Urban Crossroad. 2022. Iowa and Palmyrita Warehouses Vehicle Miles Traveled (VMT) Analysis. August.
[79] Occupational Safety and Health Administration (OSHA). 2003. United States Department of Labor. Safety and Health Topics: Methane. Website: www.osha.gov/dts/chemicalsampling /data/CH_250700.html. Accessed October 24, 2022.
[80] Centers for Disease Control and Prevention (CDC). 2012. Construction. Website: www.cdc.gov/niosh/construction/. Indoor Environmental Quality—website: www.cdc.gov/niosh/topics/indoorenv/constructionieq.html. Accessed October 24, 2022.
[81] California Air Pollution Control Officers Association (CAPCOA). 2009. Health Risk Assessments for Proposed Land Use Projects.

Estimation of Cancer Risks

Cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer as a direct result of exposure to potential carcinogens over a specified exposure duration. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in a million implies a likelihood (or risk) that up to 10 persons out of 1 million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of TACs over a specified duration of time. This risk would be an excess cancer risk that is in addition to any environmental cancer risk borne by a person not exposed to these air toxics.

The Office of Environmental Health Hazard Assessment (OEHHA) has developed guidance for estimating cancer risks that considers the increased sensitivity of infants and adults to TAC emissions, different breathing rates, and time spent at home. This guidance was applied in estimating cancer risks from the construction and operation of the proposed project.

The recommend method for the estimation of cancer risk is shown in the equations.

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \quad \text{(EQ-1)}$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = \text{CPF} \times \text{EF} \times \text{ED} \times \text{DBR} \times \text{AAF/AT} \quad \text{(EQ-2)}$$

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 $(mg/kg\text{-}day)^{-1}$ for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)
AT = Averaging time period over which exposure is averaged (days)

Estimation of Chronic Non-Cancer Hazards

An evaluation of potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each

chemical compound with the appropriate Reference Exposure Level (REL). Available RELs promulgated by OEHHA were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a Hazard Index (HI). The HI is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the REL.

To quantify non-carcinogenic impacts, the HI approach was used.

$$HI = C_{ann}/REL \qquad \text{(EQ-3)}$$

Where:

HI = chronic hazard index
C_{ann} = annual average concentration of TAC as derived from the air dispersion model ($\mu g/m^3$)
REL = reference exposure level above which a significant impact is assumed to occur ($\mu g/m^3$)

The HI assumes that chronic exposures to TACs adversely affect a specific organ or organ system (toxicological endpoint) of the body. For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the HI, each chemical concentration or dose is divided by the appropriate toxicity REL. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. OEHHA has defined a REL for DPM of 5 $\mu g/m^3$. The principal toxicological endpoint assumed in this assessment was through inhalation.

Toxic Air Contaminant Construction Analysis

The construction equipment would emit DPM, which the ARB has identified as a carcinogen. However, the DPM emissions during construction are short-term in nature. Determination of risk from DPM is considered over a 30-year or 70-year exposure time. Guidance published by CAPCOA, Health Risk Assessments for Proposed Land Use Projects, does not include guidance for health risks from construction projects addressed in CEQA; risks near construction projects are expected to be included later when the toxic emissions from construction activities are better understood. In addition, construction of the project is not anticipated to result in generations of TACs for multiple years or require substantial amounts of hauling or intense activity. Furthermore, there are no existing sensitive receptors sites (such as residential uses, hospitals, daycares, or schools) directly adjacent to the project site. In addition, a construction LST analysis was performed to assess localized impacts from the project. PM_{10} and $PM_{2.5}$ are commonly used as proxies for DPM. As shown in Table 14, emissions of $PM_{2.5}$ and PM_{10} would not result in a potentially significant localized impact. Therefore, exposure to DPM during construction is anticipated to result in a less than significant health impact.

Toxic Air Contaminant Operational Analysis

The proposed project would generate passenger vehicle trips from employees, visitors, and light-duty delivery vehicles traveling to and from the project site; however, the proposed project would also be served with daily truck deliveries. The main source of DPM from the long-term operations of warehouses is from combustion of diesel fuel in diesel-powered engines in heavy-duty trucks. Motor

vehicle emissions refer to DPM exhaust emissions from the motor vehicle traffic that would travel to and from the project site each day. An estimate of the number of vehicle trips that the proposed project would generate was prepared by traffic impact study, as shown in Table 9 contained in Section 4-Modeling Parameters and Assumptions.

Operational emissions for the proposed project were assessed assuming the first year of operations would occur in 2024. The emission factors, AERMOD Output, emission estimation spreadsheets, and HARP2 files used to estimate motor vehicle DPM emissions during project operations are provided in Appendix B.

The results HRA prepared for project operations, for cancer risk and long-term chronic cancer risk, are summarized below. Air dispersion modeling was utilized to assess the proposed project's potential health risks using AERMOD. Exhaust emissions of DPM (as PM_{10} exhaust) were estimated using EMFAC2021. The OEHHA-recommended values for the various cancer risk parameters used in the operational HRA are provided below in Table 16. The parameters and methodology are summarized in Section 4-Modeling Parameters and Assumptions. Detailed calculations are provided in Appendix B.

Table 16: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate[1] (l/kg-day)
	Hours/day	Days/year				
Sensitive/Residential—Infant (Third Trimester)						
Third Trimester	24	350	0.25	10	1	361
0–2 years	24	350	2	10	1	1,090
Sensitive Receptor—Child						
>2–16 years	24	350	14	3	1	745
Sensitive Receptor—Adult						
> 16 to 30 years	24	350	14	1	73	335
> 30 years	24	350	0	1	73	290

Notes:
[1] The daily breathing rates for sensitive/residential receptors assume the 95th percentile breathing rates for all individuals.
(l/kg-day) = liters per kilogram body weight per day
Source: Appendix B.

An operational HRA was performed to determine calculate the cancer health risks and the non-hazard indices for sensitive receptors within approximately 2,000 feet of the project boundary. The results of this analysis are summarized in Table 17.

Table 17: Summary of Health Risk Impacts from Project Operations (30-Year Exposure)

Health Impact Metric	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[1]
Operations Only		
Risks and Hazards at the MIR over 30-year exposure	0.5	0.0001
SCAQMD Significance Threshold	**10**	**1**
Exceeds Individual Source Threshold?	**No**	**No**

Notes:
MIR = Maximally Impacted Sensitive Receptor
SCAQMD = South Coast Air Quality Management District
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Appendix B.

The maximum cancer risks at the MIR over a 30-year operational exposure duration would be less than 10 in one million, and the maximum hazard index for chronic HI would be less than 0.1. As noted in Table 17, the health risks and HI are below the SCAQMD's thresholds of significance under all scenarios analyzed. Therefore, the proposed project's operation would not expose sensitive receptors to substantial pollutant concentrations.

Cumulative Toxic Air Contaminant Operational Analysis

As previously discussed, projects that exceed project-specific significance thresholds are considered by the SCAQMD cumulatively considerable. Conversely, projects that do not exceed project-specific thresholds are generally not considered cumulatively significant. As discussed in Criteria 1 through 3, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Since the proposed project would not exceed project-specific thresholds it would not be considered to result in cumulatively significant impacts.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

5.2.4 - Objectionable Odors

Impact AIR-4: **The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Impact Analysis

Odor impacts on residential areas and other sensitive receptors, such as hospitals, daycare centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor.

Odors can cause a variety of responses. The impact of an odor is dependent on interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The SCAQMD does not provide a suggested screening distance for a variety of odor-generating land uses and operations. However, the San Joaquin Valley Air Pollution Control District (Valley Air District) does have a screening distance for odor sources. Those distances are used as a guide to assess whether nearby facilities could be sources of significant odors. Proposed projects that would site a new sensitive receptor farther than the applicable screening distances from an existing odor source would not likely have a significant impact. The SCAQMD considers residences, schools, daycare centers, playgrounds, and medical facilities as sensitive receptor land uses. The closest sensitive receptor located near the project site is a single-family home which is 850 feet north from the closest project boundary.

These screening distances by type of odor generator are listed in Table 18.

Table 18: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile

Odor Generator	Screening Distance
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: Source: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). February 19.	

Construction-Related Odors

Potential sources that may emit odors during construction activities include exhaust from diesel construction equipment. However, because of the temporary nature of these emissions, the intermittent nature of construction activities, and the highly diffusive properties of diesel PM exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project construction. Odors from these sources would be localized and generally confined to the immediate area surrounding the proposed project site. The proposed project would utilize typical construction techniques and the odors would be typical of most construction sites and temporary in nature.

Operational-Related Odors

The proposed project includes the construction and development of a warehouse building, parking spaces, and associated landscaping. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feedlots, coffee roasters, asphalt batch plants, and rendering plants. The end uses of the proposed warehouse would involve distribution. The proposed project would not produce any offensive odor emitting end uses such as coffee roasting, composting, feed lots, refining, sewage treatment, or solid waste management and would not be considered an odor generator as identified in Table 18. Additionally, since the proposed project would not include new sensitive receptors, such as residences, the proposed project would not locate new sensitive receptors near an odor source. Therefore, the proposed project would not be a generator of objectionable odors during operations. Minor sources of odors, such as exhaust from mobile sources (including heavy-duty trucks), are not typically associated with numerous odor complaints but are known to have temporary and less concentrated odors. In summary, the project's long-term operational activities would not have any substantial odor sources that would expose nearby receptors. Considering the low intensity of potential odor emissions, the proposed project's operational activities would not expose receptors to objectionable odor emissions.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

SECTION 6: GREENHOUSE GAS IMPACT ANALYSIS

6.1 - CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the proposed project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

6.1.1 - Thresholds of Significance for the Proposed Project

Section 15064.4(b) of the CEQA Guidelines 2018 amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration No. 1**: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration No. 2**: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration No. 3**: The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

SCAQMD GHG Thresholds

The project site is within the SoCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD formed a working group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the air basin in 2008. The working group developed several different options that are contained in the SCAQMD Draft Guidance Document—Interim CEQA GHG Significance Threshold (Interim GHG Thresholds) that could be applied by lead agencies. The working group has not provided additional guidance since the release of the interim guidance in 2008. In 2010, the SCAQMD Tier 3 threshold was expanded to include non-industrial projects, as explained in the minutes from the most recent working group meeting.[82] The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 MTCO_2e per year.
  - Based on land use type: residential: 3,500 MT CO_2e per year; commercial: 1,400 MT CO_2e per year; industrial: 10,000 MT CO_2e per year; or mixed use: 3,000 MT CO_2e per year.
- Tier 4 has the following options:
  - Option 1: Reduce BAU emissions by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
  - Option 3, 2020 target for service population (SP), which includes residents and employees: 4.8 MT CO_2e/SP/year for projects and 6.6 MT CO_2e/SP/year for plans.
  - Option 3, 2035 target: 3.0 MT CO_2e/SP/year for projects and 4.1 MT CO_2e/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD provided substantial evidence in support of its threshold approach. The SCAQMD discusses its draft thresholds in the following excerpt:[83]

> The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to

[82] South Coast Air Quality Management District (SCAQMD). 2010. Greenhouse Gas CEQA Threshold Stakeholder Working Group Meeting #15. September 28.

[83] South Coast Air Quality Management District (SCAQMD). 2008. Draft Guidance Document—Interim CEQA Greenhouse (GHG) Significance Threshold Document.

> establish a performance standard or target GHG reduction objective that will ultimately contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.
>
> . . . staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to some type of CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact.

In summary, the SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 parts per million (ppm), thus stabilizing global climate. The threshold of 10,000 MT CO_2e per year established for industrial facilities is recommended in SCAQMD's latest air quality significance thresholds.[84]

The City of Riverside has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. To determine whether the proposed project would have a significant impact with respect to the generation of GHG emissions, this analysis utilizes the SCAQMD's draft local agency threshold for industrial uses of 10,000 MT CO_2e per year. This threshold is appropriate for the proposed project because both Scenario 1 and Scenario 2 would be composed of warehouse and manufacturing uses at operation. The second CEQA Checklist question would be evaluated by assessing the project's consistency with the ARB's adopted 2017 Scoping Plan Update and the City's adopted CAP.

6.2 - Impact Analysis

6.2.1 - Greenhouse Gas Inventory

Impact GHG-1:	**The proposed project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

[84] South Coast Air Quality Management District. 2019. South Coast AQMD Air Quality Significance Thresholds. April. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. Accessed August 5, 2020.

Impact Analysis

Construction Emissions

The proposed project would generate GHG emissions during construction activities, resulting from emission sources such as construction equipment, haul trucks, and construction worker vehicles. Although these emissions would be temporary and short-term in nature, they could represent a substantial contribution of GHG emissions. Construction emissions were modeled using CalEEMod Version 2020.4.0. Table 19, below, shows the annual construction GHG emissions.

Table 19: Proposed Project Construction GHG Emissions

Construction Activity	Total GHG Emissions (MT CO_2e per year)
Scenario 1	
Demolition + Frontage Construction 2023	80
Grading 2023	141
Building Construction 2023	36
Building Construction 2024	664
Paving 2023	22
Architectural Coating 2024	8
Total Construction Emissions (Scenario 1)	**951**
Scenario 1 Emissions Amortized Over 30 Years[1]	**32**
Scenario 2	
Demolition + Frontage Construction 2023	80
Grading 2023	141
Building Construction 2023	35
Building Construction 2024	659
Paving 2023	22
Architectural Coating 2024	8
Total Construction Emissions (Scenario 2)	**945**
Scenario 2 Emissions Amortized Over 30 Years[1]	**32**

Notes:
GHG = greenhouse gas
MT CO_2e = metric tons carbon dioxide equivalent
Totals may not appear to sum exactly due to rounding.
1 Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: Appendix A.

As shown above, the proposed project would generate approximately 951 MT CO_2e during construction of Scenario 1 and 945 MT CO_2e during construction of Scenario 2. Over 30 years the construction GHG emissions would be amortized to approximately 32 MT CO_2e per year for each

scenario. Since SCAQMD has not established a construction GHG threshold, total construction emissions were amortized over 30 years and included in the emissions inventory to account for the short-term, one-time GHG emissions from the construction phase of the proposed project.

Operational Emissions

Operational, or long-term, emissions are those emissions that occur over the life of the project. Project operations were modeled for the 2024 operational year, immediately following the completion of construction. Sources for operational emissions are summarized below and are described in more detail in Section 4-Modeling Parameters and Assumptions. Sources for operational GHG emissions include:

- **Motor Vehicles:** These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site. Based on the Traffic Analysis, the proposed project would generate 296 passenger car trips and 160 truck trips per day for Scenario 1 and 468 passenger car trips and 138 truck trips per day for Scenario 2.
- **Natural Gas:** These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses could include heating water, space heating, dryers, stoves, or other uses.
- **Indirect Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the project.
- **Area Sources:** These emissions refer to those produced during activities such as landscape maintenance.
- **Water Transport:** These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the project.
- **Stationary Sources:** Based on the information provided by the project applicant, the proposed project would include one stationary source in the form of a fire pump. The fire pump is presumably for fire protection purposes. To present a conservative estimate of emissions, the fire pump is assumed to be 250 horsepower and tested every month, which totals 50 hours per year.[85]

Table 20 presents the estimated annual GHG emissions from the project's operational activities. As shown in Table 20, the project would generate approximately 4,241 MT CO_2e per year in Scenario 1 after the inclusion of 32 MT CO_2e per year from project construction and 4,002 MT CO_2e per year in Scenario 2.

[85] National Fire Protection Association (NFPA). 2022. Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. Website: https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=25. Accessed October 17, 2022.

Table 20: Operational Greenhouse Gas Emissions (Unmitigated)

GHG Emissions Source	GHG Emissions (MT CO_2e per year)
Scenario 1	
Area	<1
Energy	175
Mobile	3,672
Stationary	5
Waste	126
Water	231
Amortized Construction (Scenario 1)	32
Total Annual Project Emissions (Scenario 1)	**4,241**
Applicable Threshold	**10,000**
Exceed Applicable Threshold?	**No**
Scenario 2	
Area	<1
Energy	333
Mobile	3,293
Stationary	5
Waste	125
Water	214
Amortized Construction (Scenario 2)	32
Total Annual Project Emissions (Scenario 2)	**4,002**
Applicable Threshold	**10,000**
Exceed Applicable Threshold?	**No**
Notes: MT CO_2e = metric tons carbon dioxide equivalent Source: Appendix A.	

As shown in Table 20, the proposed project's operational GHG emissions would not exceed the applicable threshold in either scenario. Thus, the proposed project's construction and operational GHG emissions would not result in a significant impact on the environment.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

6.2.2 - Greenhouse Gas Reduction Plans

Impact GHG-2: **The proposed project could conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

This impact is addressed by assessing the proposed project's consistency with the ARB's adopted 2017 Scoping Plan Update and the City's adopted CAP. This would be achieved with an assessment of the proposed project's compliance with applicable Scoping Plan measures and CAP measures as addressed below.

Senate Bill 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. Table 21 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 21, many of the measures are not applicable to the proposed project, while the proposed project is consistent with strategies that are applicable.

Table 21: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. The proposed project will not utilize existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not Applicable.** This measure applies to vehicle manufactures and does not apply to individual development projects. Nonetheless, portions of the proposed project are industrial in nature and would support minor truck operations. It is expected that deliveries throughout the State would be made with an increasing number of ZEV delivery trucks, including trips that would be coming to and from the project site.
Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services	**Consistent with Mitigation.** The proposed project is industrial in nature and would support truck and freight operations. It is expected that deliveries throughout the

2017 Scoping Plan Update Reduction Measure	Project Consistency
produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize near-zero-emission freight vehicles and equipment powered by renewable energy by 2030.	State would be made with an increasing number of ZEV delivery trucks, including trips that would be coming to and from the project site. As discussed previously, implementation of GHG-2 would support the use of all-electric on-site on-road and off-road service equipment and infrastructure for the support and operation of standard freight vehicles and zero and near-zero freight vehicles.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The proposed project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. DPM reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project site is in a built-up urban area next to existing light industrial uses and a highway and would not be considered natural or working lands.
Source: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November.	

As discussed in Table 21, the proposed project would not conflict with any applicable 2017 Scoping Plan Update reduction measures with implementation of MM GHG-2.

Consistency with Riverside Climate Action Plan

The City of Riverside adopted the CAP in January 2016 for the development and implementation of policies and programs to reduce GHG emissions within the City.[86] Table 22 summarizes the City's CAP measures for development projects and the proposed project's consistency with each measure.

Table 22: Consistency with City of Riverside Climate Action Plan

City of Riverside CAP Measures	Project Consistency
E-1 Traffic and Street Lights: Replace traffic and street lights with high-efficiency bulbs.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers. The proposed project would install high-efficiency light bulbs in order to comply with Title 24 of the California Building Standards Code standards.
E-2 Shade Trees: Strategically plant trees at new residential developments to reduce the urban heat island effect.	**Not Applicable.** The proposed project would not include residential uses. Nevertheless, the proposed project would include landscaping consistent with City of Riverside requirements in both Scenario 1 and Scenario 2 that would reduce the urban heat island effect.
E-3 Local Utility Programs – Electricity: Financing and incentives for business and home owners to make energy efficient, renewable energy, and water conservation improvements.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
E-4 Renewable Energy Production on Public Property: Large scale renewable energy installation on publicly owned property and in public right-of-way.	**Not Applicable.** This objective is aimed at the Government Agencies, not private developers.
E-5 UC Riverside Carbon Neutral Program: Collaborate with UCR to achieve a carbon neutral campus.	**Not Applicable.** This objective is aimed at the coordination with UC Riverside and City of Riverside, not private developers.
E-6 Riverside Public Utilities Technology Grants: RPU grant programs to foster research, development and demonstration of innovative solutions to energy problems.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
T-1 Bicycle Infrastructure Improvements: Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	**Consistent.** The proposed project would include sidewalks that would be accessible for bicycles near portions of the project boundary. All new off-site paved roadways and frontage improvements would include bicycle lanes and infrastructure consistent with City of Riverside Municipal Code standards.
T-2 Bicycle Parking: Provide additional options for bicycle parking.	**Consistent.** The proposed project would be required to comply with the City of Riverside Municipal Code standards for bicycle parking.

[86] City of Riverside. 2016. Economic Prosperity Action Plan and Climate Action Plan. January.

City of Riverside CAP Measures	Project Consistency
T-3 End of Trip Facilities: Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	**Consistent.** The proposed project would include sidewalks that would be accessible for bicycles near portions of the project boundary
T-4 Promotional Transportation Demand Management: Encourage Transportation Demand Management strategies	**Consistent.** The proposed project would include clean air parking stalls dedicated to carpools and vanpools in each scenario.
T-5 Traffic Signal Coordination: Incorporate technology to synchronize and coordinate traffic signals along local arterials.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
T-6 Density: Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.	**Consistent.** The proposed project would employ approximately 236 employees during operation and would operate seven days per week. As such the proposed project would improve employment density.
T-7 Mixed-Use Development: Provide for a variety of development types and uses.	**Consistent.** The proposed project would include warehouse and office uses in Scenario 1 and warehouse and manufacturing uses in Scenario 2.
T-8 Pedestrian Only Areas: Encourage walking by providing pedestrian only community areas.	**Consistent.** The proposed project would include sidewalks along the property boundaries as well as internally adjacent to parking areas and buildings. In addition, the proposed project would include sidewalks near portions of the project boundary.
T-9 Limited Parking Requirements for New Development: Reduce requirements for vehicle parking in new development projects.	**Consistent.** The proposed project would provide parking stalls consistent with the minimum parking required to comply with applicable City Municipal Code standards.
T-10 Bus Rapid Transit Services: Implement bus rapid transit service in the subregion to provide alternative transportation options.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-11 Voluntary Transportation Demand Management: Encourage employers to create TDM programs for their employers.	**Consistent.** The proposed project would include electric vehicle parking stalls and clean air carpool and vanpool parking stalls to incentivize the use of electric vehicles. In addition, the proposed project would include sidewalks to allow for pedestrian access.
T-12 Accelerated Bike Plan Implementation: Accelerate the implementation of all or specified components of a jurisdiction's adopted bike plan.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-13 Fixed Guideway Transit: By 2020, complete feasibility study and by 2025 Introduce a fixed-route transit service in the jurisdiction.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-14 Neighborhood Electric Vehicle Programs: Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure.	**Consistent.** The proposed project would include electric vehicle charging stalls that would support charging infrastructure.

City of Riverside CAP Measures	Project Consistency
T-15 Subsidized Transit: Increase access to transit by providing free or reduced passes.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-16 Bike Share Program: Create nodes offering bike sharing at key locations throughout the City.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-17 Car Share Program: Offer Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-18 SB 743 as Alternative to LOS: Use SB 743 to incentivize development in the downtown and other areas served by transit.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government and transit agencies, not private developers.
T-19 Alternative Fuel and Vehicle Technology and Infrastructure: Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers.	**Consistent.** The proposed project would include electric vehicle charging stalls that would support electric vehicle charging infrastructure.
T-20 Eco-Corridor: Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
W-1 Water Conservation and Efficiency: Reduce per capita water use by 20 percent by 2020.	**Consistent.** The proposed project would be required to be consistent with applicable water efficiency requirements detailed in the Green Building Standards Code (Title 24, California Code of Regulations). As such, the proposed project would be equipped with low-flow plumbing fixtures that reduce water use.
SW-1 Yard Waste Collection: Provide green waste collection bins community-wide.	**Consistent.** The proposed project would comply with applicable solid waste requirements.
SW-2 Food Scrap and Paper Diversion: Divert food and paper waste from landfills by implementing commercial and residential collection program.	**Consistent.** The proposed project would comply with applicable solid waste requirements.
A-1 Local Food and Agriculture: Promote local food and agricultural programs.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
Measure A-2: Urban Forest: Augment City's Urban and Community Forest Program to include an Urban Forest Management Plan.	**Not Applicable.** This objective is aimed at the City of Riverside Municipal Government, not private developers.
Source: City of Riverside Economic Prosperity Action Plan and Climate Action Plan. 2016.	

In summary, the proposed project is consistent with applicable strategies and would not conflict with the recommendations and reduction measures outlined in the 2017 Scoping Plan addressing the SB 32 targets after incorporation of MM GHG-2. Furthermore, the proposed project would be

consistent with the appliable measures listed in the City's CAP. Considering this information, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. Therefore, the impact would be less than significant with implementation of mitigation.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Project-specific Mitigation Measures

MM GHG-2 Zero-Emission Service Equipment

Prior to issuance of construction permit the project applicant shall demonstrate to the City of Riverside that all on-site off-road and on-road service equipment would utilize zero-emission technology. Additionally, the project applicant shall provide documentation to the City of Riverside that all proposed buildings would be designed to include electric outlets to support the use of all-electric or zero-emission on-site service equipment.

Level of Significance After Mitigation

Less than significant impact.

SECTION 7: ENERGY IMPACT ANALYSIS

7.1 - CEQA Guidelines

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on energy, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the proposed project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

7.2 - Impact Analysis

7.2.1 - Project Energy Consumption

Impact ENER-1:	**The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation.**

Impact Analysis

A discussion of the proposed project's anticipated energy usage is presented below. Energy use consumed by the proposed project was estimated and includes natural gas, electricity, and fuel consumption for project construction and operation. Energy calculations are included as part of Appendix C.

RPU provides electricity service at the project and Southern California Gas Company (SoCalGas) provides natural gas service to the City and the project site.

Construction Impacts

The project construction schedule was assumed to begin in fourth quarter 2023 and conclude in third quarter 2024. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require demolition, grading, building construction, architectural coating, and paving. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual

construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 35,152 gallons of diesel fuel over the entire construction duration for both Scenario 1 and Scenario 2 (Appendix C).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix C. Under Scenario 1, the proposed project is estimated to generate 1,278,897 VMT and a combined 69,302 gallons of combined gasoline and diesel for vehicle travel during construction. Under Scenario 2, the proposed project is estimated to generate 1,265,437 VMT and a combined 68,695 gallons. Table 23 shows the energy consumption for both Scenario 1 and Scenario 2.

Other equipment could include construction lighting, field services (office trailers), and electrically-driven equipment such as pumps and other tools. Section 7.35.020 of the Riverside Municipal Code defines permissible hours of construction as between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays (Riverside Municipal Code, Chapter 7.35). As on-site construction activities would be restricted to these hours, it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 5,529 kilowatt hours (kWh) during the construction phase (Appendix C).

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

Operational Impacts

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 23.

Table 23: Estimated Project Energy Consumption

Energy Consumption Activity	Scenario 1 Consumption	Scenario 2 Consumption
Construction Equipment Fuel	35,152 *gallons of gasoline and diesel*	35,152 *gallons of gasoline and diesel*
Construction Vehicle Fuel	69,302 *gallons of gasoline and diesel*	68,695 *gallons of gasoline and diesel*
Construction Office Electricity	5,529 kWh	5,529 kWh
Operational Electricity Consumption	812,617 kWh/year	1,157,996 kWh/year
Operational Natural Gas Consumption	556,610 kBTU/year	2,352,737 kBTU/year
Operational Fuel Consumption–Passenger Vehicles	*51,380 gallons of gasoline and diesel*/year	*65,704 gallons of gasoline and diesel*/year
Operational Fuel Consumption–Trucks	*304,918 gallons of primarily diesel*/year	*259,759 gallons of primarily diesel*/year
Total Fuel Consumption (Passenger Vehicles and Trucks Combined)	356,297 gallons of gasoline and diesel/year	325,463 gallons of gasoline and diesel/year

Notes:
kBTU = kilo-British Thermal Unit
kWh = kilowatt-hour
VMT = Vehicle Miles Traveled
Source: Appendix C.

The proposed project's building would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These are widely regarded as the most advanced building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary. Table 23 shows the energy consumption for both Scenario 1 and Scenario 2. Overall, based on CalEEMod energy consumption rate, Scenario 1 has slightly more mobile source energy use than that of Scenario 1, but consumes less natural gas and electricity than Scenario 2.

Appendix F of the CEQA Guidelines and the Appellate Court decision in *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 164-168, the proposed project would be considered to result in wasteful, inefficient, or unnecessary consumption of energy resources if it would conflict with the following energy conservation goals:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, or oil; and
- Increasing reliance on renewable energy sources.

Decreasing Overall Per Capita Energy Consumption

In 2020, RPU obtained 42.2 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (4.8 percent), natural gas (5.0 percent), and large

hydroelectric (1.4 percent).[87] Therefore, the proposed project's utility provider has met the State's 2020 objective of 33 percent and is making progress toward the State's 2024 RPS target of 44 percent. Furthermore, RPU would also be required to meet the State's future objective of 60 percent electricity from renewable energy sources by 2030. The proposed warehouse building would be designed in accordance with Title 24, California's Energy Efficiency Standards for Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the proposed project would not result in the use of energy in a wasteful manner. Therefore, the proposed project would not conflict with local, regional, or Statewide efforts being made to decrease per capita energy consumption.

Decreasing Reliance on Fossil Fuels

The proposed project would be designed and constructed in accordance with the California Building Standards Code (CBC) energy efficiency standards. For example, the proposed project would install low-flow plumbing fixtures and high-efficiency light that are compliant with the CBC. CBC energy efficiency standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. Compliance with the CBC would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. As a result, the increase in energy conservation and efficiency would reduce the amount of potentially fossil fuel-sourced electricity consumption, and thereby reducing project reliance on fossil fuels.

Project-related vehicle trips would consume 356,297 gallons of fuel for Scenario 1 and 325,463 gallons for Scenario 2 due to vehicles traveling to and from the project site. This analysis evaluated operational fuel consumption based on the proposed project's operational assumptions. In addition, the proposed project tenant would comply with heavy-duty truck idling limitations as trucks would unload and load goods to avoid fuel waste. The owners and operators of trucks and freight operations would comply with the Sustainable Freight Action Plan and phase in zero-emission trucks. In addition, the proposed project would include EV charging parking stalls and carpool and vanpool parking stalls on the project site, which would reduce the need to use fossil fuel powered vehicles. Regional access to the project site is provided by I- 215 and SR-60 which are 0.5 and 1 mile southeast of the project site. As a result, the proposed project is located near regional and local roadways that would provide convenient access for future residents and would not result in excessively long vehicle miles traveled. Thus, the location of the proposed project would help minimize fossil fuel reliance with respect to transportation fuel consumption.

Increasing Reliance on Renewable Energy Sources

The proposed project would be considered to conflict with this criterion if it did not take steps to increase the reliance on renewable energy sources. The proposed project would be required to comply with the applicable EV charging infrastructure standards for the development type, such as pre-wiring to facilitate future installation of EV charging stations. As a result, the proposed project

[87] California Energy Commission. 2022. Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/3850. Accessed October 28, 2022.

would be incrementally increasing overall reliance on renewable energy sources by including on-site renewable energy generation technologies and incorporating EV charging infrastructure to facilitate the future use of EVs. Furthermore, the proposed project would include carpool and vanpool parking stalls and carpool EV charging stalls that would incentivize the use of vehicles that are powered by electricity.

Conclusion

Energy consumption resulting from construction and operation of the proposed project would not be considered wasteful, inefficient, or unnecessary; therefore, the project would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

7.2.2 - Energy Plan Consistency

Impact ENER-2:	**The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.**

Impact Analysis

In 2020, RPU obtained 42.2 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (4.8 percent), natural gas (5.0 percent), and large hydroelectric (1.4 percent).[88] The utility would be required to meet the future objective of 60 percent of electricity from renewable energy sources by 2030. The proposed warehouse building would be designed in accordance with Title 24, California's Energy Efficiency Standards for Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the proposed project would not result in the use of energy in a wasteful manner.

The Riverside General Plan and CAP include policies related to energy conservation (Section 2.4.3 and Section 3.3.5); the project's consistency with these policies are discussed in GHG Impact 1.

While several of these policies are voluntary or cannot be implemented by an individual development project, compliance with Title 24 standards and other applicable regulations would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies related to the proposed project's building, mechanical systems, and indoor and outdoor lighting.

[88] California Energy Commission. 2022. Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/3850. Accessed October 28, 2022.

Considering the above analysis, the proposed project would not result in the wasteful, inefficiency, or unnecessary consumption of energy resources. This impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation required.

Appendix A:
CalEEMod Output and Additional Supporting Information

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Appendix A: CalEEMod Output and Additional Supporting Information

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Project Trip Generation Adjustment 406

Project Fleet Mix Adjustment 407

Riverside City Palmyrita Avenue Warehouse Project CalEEMod Notes

Note 1. Based on applicant-provided site plan. Scenario 1 and Scenario 2's land use are summarized as follow:

Scenario 1

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

Scenario 2

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

Note 2. Based on applicant's schedule, demolition and grading would overlap. Construction would start in November 2023 and complete in September 2024.

Note 3. Based on applicant, the grading export volume would be 24,000 cubic yard.

Note 4. According to information provided by the Project Applicant, approximately 99,165 square feet of existing buildings and 258,000 square feet of pavement would be demolished. As such, an estimated 14,261 tons of demolition debris would be removed from the project site during demolition.

Note 5. SCAQMD low-VOC coating of 50 g/L is applied for interior and exterior paint. Because the proposed project would be built with tilt-up wall concrete panels with pre-finished metal components, the CalEEMod default coating area were reduced to half to represent minimal coating needed.

Note 6. The number of vehicle trips are adjusted based on the latest traffic study.[1] The passenger vehicle trips are assigned to office land use, and truck trips are assigned to warehouse/manufacturing land use as shown in the traffic analysis. The truck trip length is set to be 50 miles according to SCAQMD guidance and as a conservative estimate. Please see trip adjustment in appendix for details.

[1] Urban Crossroads. 2022. Palmyrita Warehouse Project Trip Generation Assessment. October.

Note 7. Fleet mix was adjusted based on the 2-axle, 3-axle, and 4-axle truck ratio provided in the traffic study. 2-axle trucks were matched with LHDT1 and LHDT2, 3-axle trucks were matched with MHDT, and 4-axle trucks were matched with HHDT in CalEEMod default. Please see fleet mix adjustment in appendix for details.

Note 8. A 250-hp fire pump is included to support the operation of the proposed project, and 50 hours test time is assumed during a year.

Note 9. SCAQMD *dust control measures* were applied the model, which are required. The model was adjusted to include watering of exposed areas three times per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

The model runs selected Southern California Edison as the Utility Provider. The project site would be serviced by Riverside Public Utilities (RPU). RPU has a higher CO_2 intensity, however, it would not change any significance impact discussion for the proposed project.

Riverside Palmyrita Avenue Frontage Construction

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.84	1000sqft	0.04	1,840.00	0
City Park	0.47	Acre	0.47	20,342.76	0
Other Non-Asphalt Surfaces	2.12	1000sqft	0.05	2,125.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - No operation trips are associated with frontage improvement.

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	5/7/2024	12/19/2023
tblConstructionPhase	PhaseEndDate	12/5/2023	11/28/2023
tblConstructionPhase	PhaseEndDate	4/30/2024	12/12/2023
tblConstructionPhase	PhaseStartDate	5/1/2024	12/13/2023
tblConstructionPhase	PhaseStartDate	12/2/2023	11/27/2023
tblConstructionPhase	PhaseStartDate	4/24/2024	12/6/2023
tblLandUse	LandUseSquareFeet	20,473.20	20,342.76
tblLandUse	LandUseSquareFeet	2,120.00	2,125.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	tons/yr										MT/yr					
2023	3.7800e-003	0.0274	0.0300	6.0000e-005	6.1700e-003	1.2600e-003	7.4300e-003	2.8000e-003	1.1800e-003	3.9800e-003	0.0000	4.8758	4.8758	1.1400e-003	2.0000e-005	4.9090
Maximum	**3.7800e-003**	**0.0274**	**0.0300**	**6.0000e-005**	**6.1700e-003**	**1.2600e-003**	**7.4300e-003**	**2.8000e-003**	**1.1800e-003**	**3.9800e-003**	**0.0000**	**4.8758**	**4.8758**	**1.1400e-003**	**2.0000e-005**	**4.9090**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.7800e-003	0.0274	0.0300	6.0000e-005	2.9300e-003	1.2600e-003	4.1900e-003	1.2300e-003	1.1800e-003	2.4100e-003	0.0000	4.8758	4.8758	1.1400e-003	2.0000e-005	4.9090
Maximum	**3.7800e-003**	**0.0274**	**0.0300**	**6.0000e-005**	**2.9300e-003**	**1.2600e-003**	**4.1900e-003**	**1.2300e-003**	**1.1800e-003**	**2.4100e-003**	**0.0000**	**4.8758**	**4.8758**	**1.1400e-003**	**2.0000e-005**	**4.9090**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.51**	**0.00**	**43.61**	**56.07**	**0.00**	**39.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1142	0.1142	1.0000e-005	0.0000	0.1148
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	8.1200e-003	0.0000	8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.1034	1.1034	9.0000e-005	1.0000e-005	1.1091
Total	**5.1000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.1200e-003**	**1.2177**	**1.2258**	**5.8000e-004**	**1.0000e-005**	**1.2441**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1142	0.1142	1.0000e-005	0.0000	0.1148
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	8.1200e-003	0.0000	8.1200e-003	4.8000e-004	0.0000	0.0201
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.1034	1.1034	9.0000e-005	1.0000e-005	1.1091
Total	**5.1000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.1200e-003**	**1.2177**	**1.2258**	**5.8000e-004**	**1.0000e-005**	**1.2441**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/27/2023	11/28/2023	5	2	
2	Paving	Paving	12/6/2023	12/12/2023	5	5	
3	Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 238 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	**9.3000e-004**	**0.0102**	**5.5500e-003**	**1.0000e-005**	**5.3100e-003**	**4.2000e-004**	**5.7300e-003**	**2.5700e-003**	**3.9000e-004**	**2.9600e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0896	0.0896	0.0000	0.0000	0.0903
Total	**3.0000e-005**	**2.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0896**	**0.0896**	**0.0000**	**0.0000**	**0.0903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	1.0000e-003	0.0000	1.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	**9.3000e-004**	**0.0102**	**5.5500e-003**	**1.0000e-005**	**2.0700e-003**	**4.2000e-004**	**2.4900e-003**	**1.0000e-003**	**3.9000e-004**	**1.3900e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0896	0.0896	0.0000	0.0000	0.0903
Total	**3.0000e-005**	**2.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0896**	**0.0896**	**0.0000**	**0.0000**	**0.0903**

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	5.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5800e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.8200e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5040	0.5040	1.0000e-005	1.0000e-005	0.5080
Total	**1.8000e-004**	**1.4000e-004**	**1.8200e-003**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5040**	**0.5040**	**1.0000e-005**	**1.0000e-005**	**0.5080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	5.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5800e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.8200e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5040	0.5040	1.0000e-005	1.0000e-005	0.5080
Total	**1.8000e-004**	**1.4000e-004**	**1.8200e-003**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5040**	**0.5040**	**1.0000e-005**	**1.0000e-005**	**0.5080**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**1.0400e-003**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0560	0.0560	0.0000	0.0000	0.0564
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0560**	**0.0560**	**0.0000**	**0.0000**	**0.0564**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**1.0400e-003**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0560	0.0560	0.0000	0.0000	0.0564
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0560**	**0.0560**	**0.0000**	**0.0000**	**0.0564**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1142	0.1142	1.0000e-005	0.0000	0.1148
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1142	0.1142	1.0000e-005	0.0000	0.1148
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	644		0.1142	1.0000e-005	0.0000	0.1148
Total			**0.1142**	**1.0000e-005**	**0.0000**	**0.1148**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	644		0.1142	1.0000e-005	0.0000	0.1148
Total			**0.1142**	**1.0000e-005**	**0.0000**	**0.1148**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Unmitigated	5.1000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Total	**5.2000e-004**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.2000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Total	**5.2000e-004**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		1.1034	9.0000e-005	1.0000e-005	1.1091
Unmitigated		1.1034	9.0000e-005	1.0000e-005	1.1091

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 0.559996		1.1034	9.0000e-005	1.0000e-005	1.1091
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**1.1034**	**9.0000e-005**	**1.0000e-005**	**1.1091**

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 0.559996		1.1034	9.0000e-005	1.0000e-005	1.1091
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**1.1034**	**9.0000e-005**	**1.0000e-005**	**1.1091**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		8.1200e-003	4.8000e-004	0.0000	0.0201
Unmitigated		8.1200e-003	4.8000e-004	0.0000	0.0201

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.04		8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Total			**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.04		8.1200e-003	4.8000e-004	0.0000	0.0201
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Total			**8.1200e-003**	**4.8000e-004**	**0.0000**	**0.0201**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Riverside Palmyrita Avenue Frontage Construction

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.84	1000sqft	0.04	1,840.00	0
City Park	0.47	Acre	0.47	20,342.76	0
Other Non-Asphalt Surfaces	2.12	1000sqft	0.05	2,125.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - No operation trips are associated with frontage improvement.

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	5/7/2024	12/19/2023
tblConstructionPhase	PhaseEndDate	12/5/2023	11/28/2023
tblConstructionPhase	PhaseEndDate	4/30/2024	12/12/2023
tblConstructionPhase	PhaseStartDate	5/1/2024	12/13/2023
tblConstructionPhase	PhaseStartDate	12/2/2023	11/27/2023
tblConstructionPhase	PhaseStartDate	4/24/2024	12/6/2023
tblLandUse	LandUseSquareFeet	20,473.20	20,342.76
tblLandUse	LandUseSquareFeet	2,120.00	2,125.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2023	0.9684	10.2019	7.8799	0.0151	5.4324	0.4207	5.8530	2.6005	0.3870	2.9875	0.0000	1,471.3158	1,471.3158	0.4436	5.3200e-003	1,483.1098
Maximum	**0.9684**	**10.2019**	**7.8799**	**0.0151**	**5.4324**	**0.4207**	**5.8530**	**2.6005**	**0.3870**	**2.9875**	**0.0000**	**1,471.3158**	**1,471.3158**	**0.4436**	**5.3200e-003**	**1,483.1098**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9684	10.2019	7.8799	0.0151	2.1921	0.4207	2.6127	1.0337	0.3870	1.4207	0.0000	1,471.3158	1,471.3158	0.4436	5.3200e-003	1,483.1098
Maximum	**0.9684**	**10.2019**	**7.8799**	**0.0151**	**2.1921**	**0.4207**	**2.6127**	**1.0337**	**0.3870**	**1.4207**	**0.0000**	**1,471.3158**	**1,471.3158**	**0.4436**	**5.3200e-003**	**1,483.1098**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.65**	**0.00**	**55.36**	**60.25**	**0.00**	**52.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/27/2023	11/28/2023	5	2	
2	Paving	Paving	12/6/2023	12/12/2023	5	5	
3	Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 238 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**5.3119**	**0.4201**	**5.7320**	**2.5686**	**0.3865**	**2.9550**		**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0349	0.0230	0.3818	1.0500e-003	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		106.5445	106.5445	2.1700e-003	2.3600e-003	107.3036
Total	**0.0349**	**0.0230**	**0.3818**	**1.0500e-003**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**106.5445**	**106.5445**	**2.1700e-003**	**2.3600e-003**	**107.3036**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0717	0.0000	2.0717	1.0017	0.0000	1.0017			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**2.0717**	**0.4201**	**2.4918**	**1.0017**	**0.3865**	**1.3882**	**0.0000**	**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0349	0.0230	0.3818	1.0500e-003	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		106.5445	106.5445	2.1700e-003	2.3600e-003	107.3036
Total	**0.0349**	**0.0230**	**0.3818**	**1.0500e-003**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**106.5445**	**106.5445**	**2.1700e-003**	**2.3600e-003**	**107.3036**

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0785	0.0518	0.8589	2.3700e-003	0.2709	1.2400e-003	0.2722	0.0719	1.1400e-003	0.0730		239.7251	239.7251	4.8900e-003	5.3200e-003	241.4330
Total	**0.0785**	**0.0518**	**0.8589**	**2.3700e-003**	**0.2709**	**1.2400e-003**	**0.2722**	**0.0719**	**1.1400e-003**	**0.0730**		**239.7251**	**239.7251**	**4.8900e-003**	**5.3200e-003**	**241.4330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0785	0.0518	0.8589	2.3700e-003	0.2709	1.2400e-003	0.2722	0.0719	1.1400e-003	0.0730		239.7251	239.7251	4.8900e-003	5.3200e-003	241.4330
Total	**0.0785**	**0.0518**	**0.8589**	**2.3700e-003**	**0.2709**	**1.2400e-003**	**0.2722**	**0.0719**	**1.1400e-003**	**0.0730**		**239.7251**	**239.7251**	**4.8900e-003**	**5.3200e-003**	**241.4330**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7200e-003	5.7600e-003	0.0954	2.6000e-004	0.0301	1.4000e-004	0.0302	7.9800e-003	1.3000e-004	8.1100e-003		26.6361	26.6361	5.4000e-004	5.9000e-004	26.8259
Total	**8.7200e-003**	**5.7600e-003**	**0.0954**	**2.6000e-004**	**0.0301**	**1.4000e-004**	**0.0302**	**7.9800e-003**	**1.3000e-004**	**8.1100e-003**		**26.6361**	**26.6361**	**5.4000e-004**	**5.9000e-004**	**26.8259**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7200e-003	5.7600e-003	0.0954	2.6000e-004	0.0301	1.4000e-004	0.0302	7.9800e-003	1.3000e-004	8.1100e-003		26.6361	26.6361	5.4000e-004	5.9000e-004	26.8259
Total	**8.7200e-003**	**5.7600e-003**	**0.0954**	**2.6000e-004**	**0.0301**	**1.4000e-004**	**0.0302**	**7.9800e-003**	**1.3000e-004**	**8.1100e-003**		**26.6361**	**26.6361**	**5.4000e-004**	**5.9000e-004**	**26.8259**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Unmitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Riverside Palmyrita Avenue Frontage Construction

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.84	1000sqft	0.04	1,840.00	0
City Park	0.47	Acre	0.47	20,342.76	0
Other Non-Asphalt Surfaces	2.12	1000sqft	0.05	2,125.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - No operation trips are associated with frontage improvement.

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	5/7/2024	12/19/2023
tblConstructionPhase	PhaseEndDate	12/5/2023	11/28/2023
tblConstructionPhase	PhaseEndDate	4/30/2024	12/12/2023
tblConstructionPhase	PhaseStartDate	5/1/2024	12/13/2023
tblConstructionPhase	PhaseStartDate	12/2/2023	11/27/2023
tblConstructionPhase	PhaseStartDate	4/24/2024	12/6/2023
tblLandUse	LandUseSquareFeet	20,473.20	20,342.76
tblLandUse	LandUseSquareFeet	2,120.00	2,125.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2023	0.9670	10.2028	7.7093	0.0150	5.4324	0.4207	5.8530	2.6005	0.3870	2.9875	0.0000	1,461.2743	1,461.2743	0.4435	5.4400e-003	1,473.0829
Maximum	**0.9670**	**10.2028**	**7.7093**	**0.0150**	**5.4324**	**0.4207**	**5.8530**	**2.6005**	**0.3870**	**2.9875**	**0.0000**	**1,461.2743**	**1,461.2743**	**0.4435**	**5.4400e-003**	**1,473.0829**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9670	10.2028	7.7093	0.0150	2.1921	0.4207	2.6127	1.0337	0.3870	1.4207	0.0000	1,461.2743	1,461.2743	0.4435	5.4400e-003	1,473.0829
Maximum	**0.9670**	**10.2028**	**7.7093**	**0.0150**	**2.1921**	**0.4207**	**2.6127**	**1.0337**	**0.3870**	**1.4207**	**0.0000**	**1,461.2743**	**1,461.2743**	**0.4435**	**5.4400e-003**	**1,473.0829**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.65**	**0.00**	**55.36**	**60.25**	**0.00**	**52.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/27/2023	11/28/2023	5	2	
2	Paving	Paving	12/6/2023	12/12/2023	5	5	
3	Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 238 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**5.3119**	**0.4201**	**5.7320**	**2.5686**	**0.3865**	**2.9550**		**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0335	0.0239	0.3059	9.5000e-004	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		96.5029	96.5029	2.1200e-003	2.4200e-003	97.2767
Total	**0.0335**	**0.0239**	**0.3059**	**9.5000e-004**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**96.5029**	**96.5029**	**2.1200e-003**	**2.4200e-003**	**97.2767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0717	0.0000	2.0717	1.0017	0.0000	1.0017			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**2.0717**	**0.4201**	**2.4918**	**1.0017**	**0.3865**	**1.3882**	**0.0000**	**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0335	0.0239	0.3059	9.5000e-004	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		96.5029	96.5029	2.1200e-003	2.4200e-003	97.2767
Total	**0.0335**	**0.0239**	**0.3059**	**9.5000e-004**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**96.5029**	**96.5029**	**2.1200e-003**	**2.4200e-003**	**97.2767**

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0753	0.0538	0.6883	2.1500e-003	0.2709	1.2400e-003	0.2722	0.0719	1.1400e-003	0.0730		217.1316	217.1316	4.7600e-003	5.4400e-003	218.8727
Total	**0.0753**	**0.0538**	**0.6883**	**2.1500e-003**	**0.2709**	**1.2400e-003**	**0.2722**	**0.0719**	**1.1400e-003**	**0.0730**		**217.1316**	**217.1316**	**4.7600e-003**	**5.4400e-003**	**218.8727**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0753	0.0538	0.6883	2.1500e-003	0.2709	1.2400e-003	0.2722	0.0719	1.1400e-003	0.0730		217.1316	217.1316	4.7600e-003	5.4400e-003	218.8727
Total	**0.0753**	**0.0538**	**0.6883**	**2.1500e-003**	**0.2709**	**1.2400e-003**	**0.2722**	**0.0719**	**1.1400e-003**	**0.0730**		**217.1316**	**217.1316**	**4.7600e-003**	**5.4400e-003**	**218.8727**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3600e-003	5.9700e-003	0.0765	2.4000e-004	0.0301	1.4000e-004	0.0302	7.9800e-003	1.3000e-004	8.1100e-003		24.1257	24.1257	5.3000e-004	6.0000e-004	24.3192
Total	**8.3600e-003**	**5.9700e-003**	**0.0765**	**2.4000e-004**	**0.0301**	**1.4000e-004**	**0.0302**	**7.9800e-003**	**1.3000e-004**	**8.1100e-003**		**24.1257**	**24.1257**	**5.3000e-004**	**6.0000e-004**	**24.3192**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3600e-003	5.9700e-003	0.0765	2.4000e-004	0.0301	1.4000e-004	0.0302	7.9800e-003	1.3000e-004	8.1100e-003		24.1257	24.1257	5.3000e-004	6.0000e-004	24.3192
Total	**8.3600e-003**	**5.9700e-003**	**0.0765**	**2.4000e-004**	**0.0301**	**1.4000e-004**	**0.0302**	**7.9800e-003**	**1.3000e-004**	**8.1100e-003**		**24.1257**	**24.1257**	**5.3000e-004**	**6.0000e-004**	**24.3192**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Unmitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S1

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

Consumer Products -

Area Coating - Appendix A

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation -

Fleet Mix - Note 7

Stationary Sources - Emergency Generators and Fire Pumps - Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	398,639.00	199,320.00
tblArchitecturalCoating	ConstArea_Parking	15,002.00	66,440.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00
tblLandUse	LandUseSquareFeet	249,960.00	249,958.00
tblLandUse	LotAcreage	0.36	0.18
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	18.70
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	18.70
tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	18.70
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0753	0.8875	0.6910	2.6500e-003	0.3124	0.0307	0.3431	0.0778	0.0285	0.1063	0.0000	244.8683	244.8683	0.0321	0.0203	251.7294
2024	0.9523	1.7997	2.7547	7.5300e-003	0.4299	0.0682	0.4980	0.1157	0.0641	0.1798	0.0000	682.8268	682.8268	0.0659	0.0321	694.0332
Maximum	**0.9523**	**1.7997**	**2.7547**	**7.5300e-003**	**0.4299**	**0.0682**	**0.4980**	**0.1157**	**0.0641**	**0.1798**	**0.0000**	**682.8268**	**682.8268**	**0.0659**	**0.0321**	**694.0332**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0753	0.8875	0.6910	2.6500e-003	0.1617	0.0307	0.1923	0.0412	0.0285	0.0697	0.0000	244.8682	244.8682	0.0321	0.0203	251.7292
2024	0.9523	1.7996	2.7547	7.5300e-003	0.4299	0.0682	0.4980	0.1157	0.0641	0.1798	0.0000	682.8265	682.8265	0.0659	0.0321	694.0329
Maximum	**0.9523**	**1.7996**	**2.7547**	**7.5300e-003**	**0.4299**	**0.0682**	**0.4980**	**0.1157**	**0.0641**	**0.1798**	**0.0000**	**682.8265**	**682.8265**	**0.0659**	**0.0321**	**694.0329**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.31**	**0.00**	**17.92**	**18.92**	**0.00**	**12.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-20-2023**	**2-19-2024**	1.2666	1.2666
2	**2-20-2024**	**5-19-2024**	0.6514	0.6514
3	**5-20-2024**	**8-19-2024**	0.7524	0.7524
4	**8-20-2024**	**9-30-2024**	0.9064	0.9064
		Highest	1.2666	1.2666

2.2 Overall Operational

Unmitigated Operational

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1043	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003
Energy	3.0000e-003	0.0273	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	173.8167	173.8167	0.0127	2.0200e-003	174.7367
Mobile	0.1756	5.5987	2.4264	0.0369	1.7805	0.0678	1.8483	0.4935	0.0648	0.5582	0.0000	3,531.9794	3,531.9794	0.0460	0.4676	3,672.4690
Stationary	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Waste						0.0000	0.0000		0.0000	0.0000	50.7112	0.0000	50.7112	2.9970	0.0000	125.6349
Water						0.0000	0.0000		0.0000	0.0000	19.2292	147.9105	167.1397	1.9875	0.0482	231.1754
Total	**1.2931**	**5.6547**	**2.4789**	**0.0371**	**1.7805**	**0.0714**	**1.8519**	**0.4935**	**0.0684**	**0.5618**	**69.9404**	**3,858.4733**	**3,928.4137**	**5.0439**	**0.5178**	**4,208.7999**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1043	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003
Energy	3.0000e-003	0.0273	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	173.8167	173.8167	0.0127	2.0200e-003	174.7367
Mobile	0.1756	5.5987	2.4264	0.0369	1.7805	0.0678	1.8483	0.4935	0.0648	0.5582	0.0000	3,531.9794	3,531.9794	0.0460	0.4676	3,672.4690
Stationary	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Waste						0.0000	0.0000		0.0000	0.0000	50.7112	0.0000	50.7112	2.9970	0.0000	125.6349
Water						0.0000	0.0000		0.0000	0.0000	19.2292	147.9105	167.1397	1.9875	0.0482	231.1754
Total	**1.2931**	**5.6547**	**2.4789**	**0.0371**	**1.7805**	**0.0714**	**1.8519**	**0.4935**	**0.0684**	**0.5618**	**69.9404**	**3,858.4733**	**3,928.4137**	**5.0439**	**0.5178**	**4,208.7999**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	
5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 199,320; Non-Residential Outdoor: 132,880; Striped Parking Area: 66,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	98.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1535	0.0000	0.1535	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.1535**	**9.9800e-003**	**0.1635**	**0.0233**	**9.2800e-003**	**0.0325**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0743	0.0195	3.9000e-004	0.0122	8.5000e-004	0.0130	3.3400e-003	8.1000e-004	4.1500e-003	0.0000	37.5541	37.5541	5.3000e-004	5.9200e-003	39.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.6000e-004	6.0600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6798	1.6798	4.0000e-005	4.0000e-005	1.6933
Total	**2.0800e-003**	**0.0747**	**0.0256**	**4.1000e-004**	**0.0144**	**8.6000e-004**	**0.0152**	**3.9300e-003**	**8.2000e-004**	**4.7500e-003**	**0.0000**	**39.2339**	**39.2339**	**5.7000e-004**	**5.9600e-003**	**41.0240**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0599	0.0000	0.0599	9.0700e-003	0.0000	9.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0599**	**9.9800e-003**	**0.0699**	**9.0700e-003**	**9.2800e-003**	**0.0184**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0743	0.0195	3.9000e-004	0.0122	8.5000e-004	0.0130	3.3400e-003	8.1000e-004	4.1500e-003	0.0000	37.5541	37.5541	5.3000e-004	5.9200e-003	39.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.6000e-004	6.0600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6798	1.6798	4.0000e-005	4.0000e-005	1.6933
Total	**2.0800e-003**	**0.0747**	**0.0256**	**4.1000e-004**	**0.0144**	**8.6000e-004**	**0.0152**	**3.9300e-003**	**8.2000e-004**	**4.7500e-003**	**0.0000**	**39.2339**	**39.2339**	**5.7000e-004**	**5.9600e-003**	**41.0240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0936	0.0000	0.0936	0.0368	0.0000	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5352	54.5352	0.0176	0.0000	54.9762
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.0936**	**0.0142**	**0.1078**	**0.0368**	**0.0131**	**0.0499**	**0.0000**	**54.5352**	**54.5352**	**0.0176**	**0.0000**	**54.9762**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.1580	0.0416	8.2000e-004	0.0259	1.8100e-003	0.0277	7.1000e-003	1.7300e-003	8.8300e-003	0.0000	79.9023	79.9023	1.1300e-003	0.0126	83.6825
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	6.1000e-004	8.0900e-003	2.0000e-005	2.9600e-003	1.0000e-005	2.9700e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.2398	2.2398	5.0000e-005	6.0000e-005	2.2577
Total	**3.9600e-003**	**0.1586**	**0.0496**	**8.4000e-004**	**0.0288**	**1.8200e-003**	**0.0307**	**7.8900e-003**	**1.7400e-003**	**9.6300e-003**	**0.0000**	**82.1420**	**82.1420**	**1.1800e-003**	**0.0127**	**85.9401**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0365	0.0000	0.0365	0.0143	0.0000	0.0143	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5351	54.5351	0.0176	0.0000	54.9761
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.0365**	**0.0142**	**0.0507**	**0.0143**	**0.0131**	**0.0275**	**0.0000**	**54.5351**	**54.5351**	**0.0176**	**0.0000**	**54.9761**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.1580	0.0416	8.2000e-004	0.0259	1.8100e-003	0.0277	7.1000e-003	1.7300e-003	8.8300e-003	0.0000	79.9023	79.9023	1.1300e-003	0.0126	83.6825
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	6.1000e-004	8.0900e-003	2.0000e-005	2.9600e-003	1.0000e-005	2.9700e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.2398	2.2398	5.0000e-005	6.0000e-005	2.2577
Total	**3.9600e-003**	**0.1586**	**0.0496**	**8.4000e-004**	**0.0288**	**1.8200e-003**	**0.0307**	**7.8900e-003**	**1.7400e-003**	**9.6300e-003**	**0.0000**	**82.1420**	**82.1420**	**1.1800e-003**	**0.0127**	**85.9401**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8600e-003	0.0719	0.0812	1.3000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	11.5902	11.5902	2.7600e-003	0.0000	11.6592
Total	**7.8600e-003**	**0.0719**	**0.0812**	**1.3000e-004**		**3.5000e-003**	**3.5000e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.5902**	**11.5902**	**2.7600e-003**	**0.0000**	**11.6592**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6000e-004	0.0183	6.9000e-003	1.0000e-004	3.5400e-003	1.6000e-004	3.7000e-003	1.0200e-003	1.5000e-004	1.1700e-003	0.0000	9.3204	9.3204	9.0000e-005	1.3800e-003	9.7330
Worker	4.9300e-003	3.8500e-003	0.0507	1.5000e-004	0.0186	9.0000e-005	0.0187	4.9300e-003	8.0000e-005	5.0100e-003	0.0000	14.0545	14.0545	3.0000e-004	3.5000e-004	14.1669
Total	**5.4900e-003**	**0.0222**	**0.0576**	**2.5000e-004**	**0.0221**	**2.5000e-004**	**0.0224**	**5.9500e-003**	**2.3000e-004**	**6.1800e-003**	**0.0000**	**23.3749**	**23.3749**	**3.9000e-004**	**1.7300e-003**	**23.8999**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8600e-003	0.0719	0.0812	1.3000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	11.5902	11.5902	2.7600e-003	0.0000	11.6592
Total	**7.8600e-003**	**0.0719**	**0.0812**	**1.3000e-004**		**3.5000e-003**	**3.5000e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.5902**	**11.5902**	**2.7600e-003**	**0.0000**	**11.6592**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6000e-004	0.0183	6.9000e-003	1.0000e-004	3.5400e-003	1.6000e-004	3.7000e-003	1.0200e-003	1.5000e-004	1.1700e-003	0.0000	9.3204	9.3204	9.0000e-005	1.3800e-003	9.7330
Worker	4.9300e-003	3.8500e-003	0.0507	1.5000e-004	0.0186	9.0000e-005	0.0187	4.9300e-003	8.0000e-005	5.0100e-003	0.0000	14.0545	14.0545	3.0000e-004	3.5000e-004	14.1669
Total	**5.4900e-003**	**0.0222**	**0.0576**	**2.5000e-004**	**0.0221**	**2.5000e-004**	**0.0224**	**5.9500e-003**	**2.3000e-004**	**6.1800e-003**	**0.0000**	**23.3749**	**23.3749**	**3.9000e-004**	**1.7300e-003**	**23.8999**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1398	1.2772	1.5359	2.5600e-003		0.0583	0.0583		0.0548	0.0548	0.0000	220.2567	220.2567	0.0521	0.0000	221.5588
Total	**0.1398**	**1.2772**	**1.5359**	**2.5600e-003**		**0.0583**	**0.0583**		**0.0548**	**0.0548**	**0.0000**	**220.2567**	**220.2567**	**0.0521**	**0.0000**	**221.5588**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.3482	0.1295	1.8100e-003	0.0673	3.0100e-003	0.0703	0.0194	2.8800e-003	0.0223	0.0000	174.3597	174.3597	1.8200e-003	0.0257	182.0691
Worker	0.0876	0.0650	0.9004	2.8200e-003	0.3529	1.5700e-003	0.3545	0.0937	1.4400e-003	0.0952	0.0000	258.5819	258.5819	5.2300e-003	6.1900e-003	260.5574
Total	**0.0980**	**0.4133**	**1.0299**	**4.6300e-003**	**0.4202**	**4.5800e-003**	**0.4248**	**0.1131**	**4.3200e-003**	**0.1174**	**0.0000**	**432.9416**	**432.9416**	**7.0500e-003**	**0.0319**	**442.6265**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1398	1.2772	1.5359	2.5600e-003		0.0583	0.0583		0.0548	0.0548	0.0000	220.2564	220.2564	0.0521	0.0000	221.5585
Total	**0.1398**	**1.2772**	**1.5359**	**2.5600e-003**		**0.0583**	**0.0583**		**0.0548**	**0.0548**	**0.0000**	**220.2564**	**220.2564**	**0.0521**	**0.0000**	**221.5585**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.3482	0.1295	1.8100e-003	0.0673	3.0100e-003	0.0703	0.0194	2.8800e-003	0.0223	0.0000	174.3597	174.3597	1.8200e-003	0.0257	182.0691
Worker	0.0876	0.0650	0.9004	2.8200e-003	0.3529	1.5700e-003	0.3545	0.0937	1.4400e-003	0.0952	0.0000	258.5819	258.5819	5.2300e-003	6.1900e-003	260.5574
Total	**0.0980**	**0.4133**	**1.0299**	**4.6300e-003**	**0.4202**	**4.5800e-003**	**0.4248**	**0.1131**	**4.3200e-003**	**0.1174**	**0.0000**	**432.9416**	**432.9416**	**7.0500e-003**	**0.0319**	**442.6265**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	7.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.6600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6266	1.6266	3.0000e-005	4.0000e-005	1.6391
Total	**5.5000e-004**	**4.1000e-004**	**5.6600e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6266**	**1.6266**	**3.0000e-005**	**4.0000e-005**	**1.6391**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	7.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.6600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6266	1.6266	3.0000e-005	4.0000e-005	1.6391
Total	**5.5000e-004**	**4.1000e-004**	**5.6600e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6266**	**1.6266**	**3.0000e-005**	**4.0000e-005**	**1.6391**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.6947**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.3600e-003	0.0189	6.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9600e-003	3.0000e-005	2.0000e-003	0.0000	5.4221	5.4221	1.1000e-004	1.3000e-004	5.4636
Total	**1.8400e-003**	**1.3600e-003**	**0.0189**	**6.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9600e-003**	**3.0000e-005**	**2.0000e-003**	**0.0000**	**5.4221**	**5.4221**	**1.1000e-004**	**1.3000e-004**	**5.4636**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.6947**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.3600e-003	0.0189	6.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9600e-003	3.0000e-005	2.0000e-003	0.0000	5.4221	5.4221	1.1000e-004	1.3000e-004	5.4636
Total	**1.8400e-003**	**1.3600e-003**	**0.0189**	**6.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9600e-003**	**3.0000e-005**	**2.0000e-003**	**0.0000**	**5.4221**	**5.4221**	**1.1000e-004**	**1.3000e-004**	**5.4636**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1756	5.5987	2.4264	0.0369	1.7805	0.0678	1.8483	0.4935	0.0648	0.5582	0.0000	3,531.9794	3,531.9794	0.0460	0.4676	3,672.4690
Unmitigated	0.1756	5.5987	2.4264	0.0369	1.7805	0.0678	1.8483	0.4935	0.0648	0.5582	0.0000	3,531.9794	3,531.9794	0.0460	0.4676	3,672.4690

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	1,339,396	1,339,396
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	2,911,534	2,911,534
Total	455.43	455.43	455.43	4,250,930	4,250,930

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	144.1139	144.1139	0.0122	1.4700e-003	144.8574
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	144.1139	144.1139	0.0122	1.4700e-003	144.8574
NaturalGas Mitigated	3.0000e-003	0.0273	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	29.7028	29.7028	5.7000e-004	5.4000e-004	29.8793
NaturalGas Unmitigated	3.0000e-003	0.0273	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	29.7028	29.7028	5.7000e-004	5.4000e-004	29.8793

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	54194	2.9000e-004	2.6600e-003	2.2300e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8920	2.8920	6.0000e-005	5.0000e-005	2.9092
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	502416	2.7100e-003	0.0246	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003	0.0000	26.8108	26.8108	5.1000e-004	4.9000e-004	26.9701
Total		**3.0000e-003**	**0.0273**	**0.0229**	**1.7000e-004**		**2.0700e-003**	**2.0700e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**29.7028**	**29.7028**	**5.7000e-004**	**5.4000e-004**	**29.8793**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	54194	2.9000e-004	2.6600e-003	2.2300e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8920	2.8920	6.0000e-005	5.0000e-005	2.9092
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	502416	2.7100e-003	0.0246	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003	0.0000	26.8108	26.8108	5.1000e-004	4.9000e-004	26.9701
Total		**3.0000e-003**	**0.0273**	**0.0229**	**1.7000e-004**		**2.0700e-003**	**2.0700e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**29.7028**	**29.7028**	**5.7000e-004**	**5.4000e-004**	**29.8793**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
General Office Building	145202		25.7509	2.1700e-003	2.6000e-004	25.8838
Parking Lot	87512		15.5199	1.3100e-003	1.6000e-004	15.5999
Unrefrigerated Warehouse-No Rail	579903		102.8431	8.6800e-003	1.0500e-003	103.3737
Total			**144.1139**	**0.0122**	**1.4700e-003**	**144.8574**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
General Office Building	145202		25.7509	2.1700e-003	2.6000e-004	25.8838
Parking Lot	87512		15.5199	1.3100e-003	1.6000e-004	15.5999
Unrefrigerated Warehouse-No Rail	579903		102.8431	8.6800e-003	1.0500e-003	103.3737
Total			**144.1139**	**0.0122**	**1.4700e-003**	**144.8574**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1043	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	1.1043	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1267					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003
Total	**1.1043**	**3.0000e-005**	**3.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.7900e-003**	**6.7900e-003**	**2.0000e-005**	**0.0000**	**7.2300e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1267					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7900e-003	6.7900e-003	2.0000e-005	0.0000	7.2300e-003
Total	**1.1043**	**3.0000e-005**	**3.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.7900e-003**	**6.7900e-003**	**2.0000e-005**	**0.0000**	**7.2300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		167.1397	1.9875	0.0482	231.1754
Unmitigated		167.1397	1.9875	0.0482	231.1754

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 2.31147		4.5543	3.8000e-004	5.0000e-005	4.5778
General Office Building	2.80819 / 1.72115		10.7668	0.0923	2.2600e-003	13.7493
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	57.8032 / 0		151.8185	1.8948	0.0458	212.8484
Total			**167.1397**	**1.9875**	**0.0482**	**231.1755**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 2.31147		4.5543	3.8000e-004	5.0000e-005	4.5778
General Office Building	2.80819 / 1.72115		10.7668	0.0923	2.2600e-003	13.7493
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	57.8032 / 0		151.8185	1.8948	0.0458	212.8484
Total			**167.1397**	**1.9875**	**0.0482**	**231.1755**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		50.7112	2.9970	0.0000	125.6349

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated		50.7112	2.9970	0.0000	125.6349

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.17		0.0345	2.0400e-003	0.0000	0.0855
General Office Building	14.69		2.9819	0.1762	0.0000	7.3876
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	234.96		47.6948	2.8187	0.0000	118.1617
Total			**50.7112**	**2.9970**	**0.0000**	**125.6349**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.17		0.0345	2.0400e-003	0.0000	0.0855
General Office Building	14.69		2.9819	0.1762	0.0000	7.3876
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	234.96		47.6948	2.8187	0.0000	118.1617
Total			**50.7112**	**2.9970**	**0.0000**	**125.6349**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (175 - 300 HP)	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Total	**0.0103**	**0.0287**	**0.0262**	**5.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**4.7600**	**4.7600**	**6.7000e-004**	**0.0000**	**4.7767**

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

Consumer Products -

Area Coating - Appendix A

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation -

Fleet Mix - Note 7

Stationary Sources - Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	398,639.00	199,320.00
tblArchitecturalCoating	ConstArea_Parking	15,002.00	66,440.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00

tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00
tblLandUse	LandUseSquareFeet	249,960.00	249,958.00
tblLandUse	LotAcreage	0.36	0.18
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	18.70
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	18.70
tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	18.70
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.2259	78.1208	55.4198	0.2267	29.0942	2.6902	31.7844	7.1990	2.4950	9.6940	0.0000	23,163.4388	23,163.4388	3.1867	2.0492	23,853.7584
2024	72.2786	27.1391	43.9894	0.1028	5.2490	1.1309	5.9746	1.4082	1.0543	2.3228	0.0000	10,214.3542	10,214.3542	1.4049	0.3805	10,360.0003
Maximum	**72.2786**	**78.1208**	**55.4198**	**0.2267**	**29.0942**	**2.6902**	**31.7844**	**7.1990**	**2.4950**	**9.6940**	**0.0000**	**23,163.4388**	**23,163.4388**	**3.1867**	**2.0492**	**23,853.7584**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.2259	78.1208	55.4198	0.2267	14.0222	2.6902	16.7124	3.5382	2.4950	6.0332	0.0000	23,163.4388	23,163.4388	3.1867	2.0492	23,853.7584
2024	72.2786	27.1391	43.9894	0.1028	5.2490	1.1309	5.9746	1.4082	1.0543	2.3228	0.0000	10,214.3542	10,214.3542	1.4049	0.3805	10,360.0003
Maximum	**72.2786**	**78.1208**	**55.4198**	**0.2267**	**14.0222**	**2.6902**	**16.7124**	**3.5382**	**2.4950**	**6.0332**	**0.0000**	**23,163.4388**	**23,163.4388**	**3.1867**	**2.0492**	**23,853.7584**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.89**	**0.00**	**39.92**	**42.53**	**0.00**	**30.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

Mobile	1.0626	29.1076	14.4059	0.2045	9.9312	0.3728	10.3040	2.7477	0.3562	3.1039		21,586.9776	21,586.9776	0.2784	2.8306	22,437.4574
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**7.1880**	**29.4179**	**14.7058**	**0.2057**	**9.9312**	**0.3927**	**10.3240**	**2.7477**	**0.3761**	**3.1239**		**21,795.8272**	**21,795.8272**	**0.2861**	**2.8339**	**22,647.4800**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
Mobile	1.0626	29.1076	14.4059	0.2045	9.9312	0.3728	10.3040	2.7477	0.3562	3.1039		21,586.9776	21,586.9776	0.2784	2.8306	22,437.4574
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**7.1880**	**29.4179**	**14.7058**	**0.2057**	**9.9312**	**0.3927**	**10.3240**	**2.7477**	**0.3761**	**3.1239**		**21,795.8272**	**21,795.8272**	**0.2861**	**2.8339**	**22,647.4800**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 199,320; Non-Residential Outdoor: 132,880; Striped Parking Area: 66,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	98.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1543	7.0404	1.9360	0.0387	1.2339	0.0850	1.3189	0.3383	0.0813	0.4196		4,136.9096	4,136.9096	0.0587	0.6519	4,332.6338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0654	0.0432	0.7158	1.9800e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		199.7709	199.7709	4.0800e-003	4.4300e-003	201.1942
Total	**0.2197**	**7.0836**	**2.6518**	**0.0407**	**1.4597**	**0.0860**	**1.5457**	**0.3982**	**0.0823**	**0.4804**		**4,336.6805**	**4,336.6805**	**0.0628**	**0.6563**	**4,533.8279**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1543	7.0404	1.9360	0.0387	1.2339	0.0850	1.3189	0.3383	0.0813	0.4196		4,136.9096	4,136.9096	0.0587	0.6519	4,332.6338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0654	0.0432	0.7158	1.9800e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		199.7709	199.7709	4.0800e-003	4.4300e-003	201.1942
Total	**0.2197**	**7.0836**	**2.6518**	**0.0407**	**1.4597**	**0.0860**	**1.5457**	**0.3982**	**0.0823**	**0.4804**		**4,336.6805**	**4,336.6805**	**0.0628**	**0.6563**	**4,533.8279**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3283	14.9796	4.1192	0.0824	2.6253	0.1808	2.8061	0.7197	0.1730	0.8927		8,801.9353	8,801.9353	0.1249	1.3870	9,218.3697
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0872	0.0576	0.9544	2.6400e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		266.3613	266.3613	5.4400e-003	5.9100e-003	268.2589
Total	**0.4154**	**15.0372**	**5.0735**	**0.0851**	**2.9263**	**0.1822**	**3.1085**	**0.7996**	**0.1742**	**0.9738**		**9,068.2965**	**9,068.2965**	**0.1303**	**1.3929**	**9,486.6286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3283	14.9796	4.1192	0.0824	2.6253	0.1808	2.8061	0.7197	0.1730	0.8927		8,801.9353	8,801.9353	0.1249	1.3870	9,218.3697
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0872	0.0576	0.9544	2.6400e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		266.3613	266.3613	5.4400e-003	5.9100e-003	268.2589
Total	**0.4154**	**15.0372**	**5.0735**	**0.0851**	**2.9263**	**0.1822**	**3.1085**	**0.7996**	**0.1742**	**0.9738**		**9,068.2965**	**9,068.2965**	**0.1303**	**1.3929**	**9,486.6286**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1156	3.4891	1.3598	0.0194	0.7183	0.0318	0.7501	0.2068	0.0304	0.2372		2,052.8945	2,052.8945	0.0205	0.3031	2,143.7258
Worker	1.0939	0.7227	11.9773	0.0331	3.7781	0.0173	3.7954	1.0019	0.0159	1.0178		3,342.8338	3,342.8338	0.0682	0.0742	3,366.6489
Total	**1.2096**	**4.2118**	**13.3370**	**0.0524**	**4.4964**	**0.0491**	**4.5455**	**1.2086**	**0.0463**	**1.2550**		**5,395.7283**	**5,395.7283**	**0.0888**	**0.3773**	**5,510.3747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1156	3.4891	1.3598	0.0194	0.7183	0.0318	0.7501	0.2068	0.0304	0.2372		2,052.8945	2,052.8945	0.0205	0.3031	2,143.7258
Worker	1.0939	0.7227	11.9773	0.0331	3.7781	0.0173	3.7954	1.0019	0.0159	1.0178		3,342.8338	3,342.8338	0.0682	0.0742	3,366.6489
Total	**1.2096**	**4.2118**	**13.3370**	**0.0524**	**4.4964**	**0.0491**	**4.5455**	**1.2086**	**0.0463**	**1.2550**		**5,395.7283**	**5,395.7283**	**0.0888**	**0.3773**	**5,510.3747**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1137	3.4900	1.3435	0.0191	0.7183	0.0316	0.7499	0.2068	0.0302	0.2370		2,021.2644	2,021.2644	0.0213	0.2980	2,110.5867
Worker	1.0206	0.6423	11.1849	0.0320	3.7781	0.0165	3.7946	1.0019	0.0152	1.0170		3,236.4315	3,236.4315	0.0617	0.0688	3,258.4797
Total	**1.1343**	**4.1323**	**12.5284**	**0.0511**	**4.4964**	**0.0481**	**4.5445**	**1.2086**	**0.0454**	**1.2540**		**5,257.6959**	**5,257.6959**	**0.0829**	**0.3668**	**5,369.0664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1137	3.4900	1.3435	0.0191	0.7183	0.0316	0.7499	0.2068	0.0302	0.2370		2,021.2644	2,021.2644	0.0213	0.2980	2,110.5867
Worker	1.0206	0.6423	11.1849	0.0320	3.7781	0.0165	3.7946	1.0019	0.0152	1.0170		3,236.4315	3,236.4315	0.0617	0.0688	3,258.4797
Total	**1.1343**	**4.1323**	**12.5284**	**0.0511**	**4.4964**	**0.0481**	**4.5445**	**1.2086**	**0.0454**	**1.2540**		**5,257.6959**	**5,257.6959**	**0.0829**	**0.3668**	**5,369.0664**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0384	0.6684	1.9100e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		193.4122	193.4122	3.6800e-003	4.1100e-003	194.7299
Total	**0.0610**	**0.0384**	**0.6684**	**1.9100e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**193.4122**	**193.4122**	**3.6800e-003**	**4.1100e-003**	**194.7299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0384	0.6684	1.9100e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		193.4122	193.4122	3.6800e-003	4.1100e-003	194.7299
Total	**0.0610**	**0.0384**	**0.6684**	**1.9100e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**193.4122**	**193.4122**	**3.6800e-003**	**4.1100e-003**	**194.7299**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2033	0.1280	2.2281	6.3800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		644.7075	644.7075	0.0123	0.0137	649.0996
Total	**0.2033**	**0.1280**	**2.2281**	**6.3800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**644.7075**	**644.7075**	**0.0123**	**0.0137**	**649.0996**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2033	0.1280	2.2281	6.3800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		644.7075	644.7075	0.0123	0.0137	649.0996
Total	**0.2033**	**0.1280**	**2.2281**	**6.3800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**644.7075**	**644.7075**	**0.0123**	**0.0137**	**649.0996**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0626	29.1076	14.4059	0.2045	9.9312	0.3728	10.3040	2.7477	0.3562	3.1039		21,586.9776	21,586.9776	0.2784	2.8306	22,437.4574

Unmitigated	1.0626	29.1076	14.4059	0.2045	9.9312	0.3728	10.3040	2.7477	0.3562	3.1039		21,586.9776	21,586.9776	0.2784	2.8306	22,437.4574

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	1,339,396	1,339,396
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	2,911,534	2,911,534
Total	455.43	455.43	455.43	4,250,930	4,250,930

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
NaturalGas Unmitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	148.477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1376.48	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.148477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.37648	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

Unmitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S1

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

Consumer Products -

Area Coating - Appendix A

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation –

Fleet Mix - Note 7

Stationary Sources - Emergency Generators and Fire Pumps – Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	398,639.00	199,320.00
tblArchitecturalCoating	ConstArea_Parking	15,002.00	66,440.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00
tblLandUse	LandUseSquareFeet	249,960.00	249,958.00
tblLandUse	LotAcreage	0.36	0.18
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	18.70
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	18.70
tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	18.70
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.1807	79.4366	55.2156	0.2265	29.0942	2.6906	31.7848	7.1990	2.4954	9.6944	0.0000	23,139.7420	23,139.7420	3.1845	2.0526	23,831.0330
2024	72.2249	27.3734	41.6797	0.0996	5.2490	1.1310	5.9747	1.4082	1.0543	2.3228	0.0000	9,896.1637	9,896.1637	1.4030	0.3833	10,042.5200
Maximum	**72.2249**	**79.4366**	**55.2156**	**0.2265**	**29.0942**	**2.6906**	**31.7848**	**7.1990**	**2.4954**	**9.6944**	**0.0000**	**23,139.7420**	**23,139.7420**	**3.1845**	**2.0526**	**23,831.0330**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.1807	79.4366	55.2156	0.2265	14.0222	2.6906	16.7128	3.5382	2.4954	6.0336	0.0000	23,139.7419	23,139.7419	3.1845	2.0526	23,831.0330
2024	72.2249	27.3734	41.6797	0.0996	5.2490	1.1310	5.9747	1.4082	1.0543	2.3228	0.0000	9,896.1637	9,896.1637	1.4030	0.3833	10,042.5200
Maximum	**72.2249**	**79.4366**	**55.2156**	**0.2265**	**14.0222**	**2.6906**	**16.7128**	**3.5382**	**2.4954**	**6.0336**	**0.0000**	**23,139.7419**	**23,139.7419**	**3.1845**	**2.0526**	**23,831.0330**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.89**	**0.00**	**39.92**	**42.53**	**0.00**	**30.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	0.9461	30.6862	13.0541	0.2024	9.9312	0.3730	10.3042	2.7477	0.3564	3.1041		21,373.0267	21,373.0267	0.2785	2.8351	22,224.8587
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**7.0715**	**30.9965**	**13.3540**	**0.2036**	**9.9312**	**0.3929**	**10.3241**	**2.7477**	**0.3763**	**3.1240**		**21,581.8764**	**21,581.8764**	**0.2862**	**2.8384**	**22,434.8813**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
Mobile	0.9461	30.6862	13.0541	0.2024	9.9312	0.3730	10.3042	2.7477	0.3564	3.1041		21,373.0267	21,373.0267	0.2785	2.8351	22,224.8587
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**7.0715**	**30.9965**	**13.3540**	**0.2036**	**9.9312**	**0.3929**	**10.3241**	**2.7477**	**0.3763**	**3.1240**		**21,581.8764**	**21,581.8764**	**0.2862**	**2.8384**	**22,434.8813**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 199,320; Non-Residential Outdoor: 132,880; Striped Parking Area: 66,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	98.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1418	7.4599	1.9768	0.0388	1.2339	0.0851	1.3190	0.3383	0.0814	0.4197		4,143.3793	4,143.3793	0.0581	0.6529	4,339.3934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0448	0.5736	1.7900e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		180.9430	180.9430	3.9700e-003	4.5400e-003	182.3939
Total	**0.2045**	**7.5047**	**2.5504**	**0.0406**	**1.4597**	**0.0861**	**1.5458**	**0.3982**	**0.0824**	**0.4805**		**4,324.3223**	**4,324.3223**	**0.0621**	**0.6574**	**4,521.7873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1418	7.4599	1.9768	0.0388	1.2339	0.0851	1.3190	0.3383	0.0814	0.4197		4,143.3793	4,143.3793	0.0581	0.6529	4,339.3934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0448	0.5736	1.7900e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		180.9430	180.9430	3.9700e-003	4.5400e-003	182.3939
Total	**0.2045**	**7.5047**	**2.5504**	**0.0406**	**1.4597**	**0.0861**	**1.5458**	**0.3982**	**0.0824**	**0.4805**		**4,324.3223**	**4,324.3223**	**0.0621**	**0.6574**	**4,521.7873**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3017	15.8722	4.2059	0.0826	2.6253	0.1811	2.8063	0.7197	0.1732	0.8930		8,815.7006	8,815.7006	0.1236	1.3891	9,232.7520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0836	0.0597	0.7648	2.3900e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		241.2573	241.2573	5.2900e-003	6.0500e-003	243.1919
Total	**0.3853**	**15.9319**	**4.9707**	**0.0849**	**2.9263**	**0.1824**	**3.1087**	**0.7996**	**0.1745**	**0.9741**		**9,056.9579**	**9,056.9579**	**0.1289**	**1.3952**	**9,475.9438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3017	15.8722	4.2059	0.0826	2.6253	0.1811	2.8063	0.7197	0.1732	0.8930		8,815.7006	8,815.7006	0.1236	1.3891	9,232.7520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0836	0.0597	0.7648	2.3900e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		241.2573	241.2573	5.2900e-003	6.0500e-003	243.1919
Total	**0.3853**	**15.9319**	**4.9707**	**0.0849**	**2.9263**	**0.1824**	**3.1087**	**0.7996**	**0.1745**	**0.9741**		**9,056.9579**	**9,056.9579**	**0.1289**	**1.3952**	**9,475.9438**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1076	3.6981	1.4037	0.0194	0.7183	0.0319	0.7502	0.2068	0.0305	0.2373		2,057.3998	2,057.3998	0.0202	0.3040	2,148.4950
Worker	1.0495	0.7497	9.5983	0.0300	3.7781	0.0173	3.7954	1.0019	0.0159	1.0178		3,027.7791	3,027.7791	0.0664	0.0759	3,052.0578
Total	**1.1570**	**4.4478**	**11.0020**	**0.0494**	**4.4964**	**0.0492**	**4.5456**	**1.2086**	**0.0464**	**1.2551**		**5,085.1789**	**5,085.1789**	**0.0866**	**0.3799**	**5,200.5529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1076	3.6981	1.4037	0.0194	0.7183	0.0319	0.7502	0.2068	0.0305	0.2373		2,057.3998	2,057.3998	0.0202	0.3040	2,148.4950
Worker	1.0495	0.7497	9.5983	0.0300	3.7781	0.0173	3.7954	1.0019	0.0159	1.0178		3,027.7791	3,027.7791	0.0664	0.0759	3,052.0578
Total	**1.1570**	**4.4478**	**11.0020**	**0.0494**	**4.4964**	**0.0492**	**4.5456**	**1.2086**	**0.0464**	**1.2551**		**5,085.1789**	**5,085.1789**	**0.0866**	**0.3799**	**5,200.5529**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	3.6992	1.3874	0.0191	0.7183	0.0317	0.7500	0.2068	0.0303	0.2371		2,025.7313	2,025.7313	0.0209	0.2989	2,115.3109
Worker	0.9825	0.6661	8.9641	0.0290	3.7781	0.0165	3.7946	1.0019	0.0152	1.0170		2,931.9690	2,931.9690	0.0601	0.0704	2,954.4447
Total	**1.0882**	**4.3653**	**10.3515**	**0.0481**	**4.4964**	**0.0482**	**4.5446**	**1.2086**	**0.0455**	**1.2541**		**4,957.7003**	**4,957.7003**	**0.0811**	**0.3692**	**5,069.7556**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	3.6992	1.3874	0.0191	0.7183	0.0317	0.7500	0.2068	0.0303	0.2371		2,025.7313	2,025.7313	0.0209	0.2989	2,115.3109
Worker	0.9825	0.6661	8.9641	0.0290	3.7781	0.0165	3.7946	1.0019	0.0152	1.0170		2,931.9690	2,931.9690	0.0601	0.0704	2,954.4447
Total	**1.0882**	**4.3653**	**10.3515**	**0.0481**	**4.4964**	**0.0482**	**4.5446**	**1.2086**	**0.0455**	**1.2541**		**4,957.7003**	**4,957.7003**	**0.0811**	**0.3692**	**5,069.7556**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0587	0.0398	0.5357	1.7300e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		175.2173	175.2173	3.5900e-003	4.2100e-003	176.5604
Total	**0.0587**	**0.0398**	**0.5357**	**1.7300e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**175.2173**	**175.2173**	**3.5900e-003**	**4.2100e-003**	**176.5604**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0587	0.0398	0.5357	1.7300e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		175.2173	175.2173	3.5900e-003	4.2100e-003	176.5604
Total	**0.0587**	**0.0398**	**0.5357**	**1.7300e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**175.2173**	**175.2173**	**3.5900e-003**	**4.2100e-003**	**176.5604**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1957	0.1327	1.7857	5.7800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		584.0576	584.0576	0.0120	0.0140	588.5348
Total	**0.1957**	**0.1327**	**1.7857**	**5.7800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**584.0576**	**584.0576**	**0.0120**	**0.0140**	**588.5348**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1957	0.1327	1.7857	5.7800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		584.0576	584.0576	0.0120	0.0140	588.5348
Total	**0.1957**	**0.1327**	**1.7857**	**5.7800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**584.0576**	**584.0576**	**0.0120**	**0.0140**	**588.5348**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9461	30.6862	13.0541	0.2024	9.9312	0.3730	10.3042	2.7477	0.3564	3.1041		21,373.0267	21,373.0267	0.2785	2.8351	22,224.8587

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.9461	30.6862	13.0541	0.2024	9.9312	0.3730	10.3042	2.7477	0.3564	3.1041		21,373.0267	21,373.0267	0.2785	2.8351	22,224.8587

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	1,339,396	1,339,396
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	2,911,534	2,911,534
Total	455.43	455.43	455.43	4,250,930	4,250,930

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
NaturalGas Unmitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	148.477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1376.48	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.148477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.37648	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S2

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Trips and VMT -

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation - X

Fleet Mix - Note 7

Stationary Sources - Emergency Generators and Fire Pumps - Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	122,222.00	61,111.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	366,666.00	183,333.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	61,110.00	61,111.00
tblLandUse	LandUseSquareFeet	177,330.00	177,332.00
tblLandUse	LandUseSquareFeet	104,544.00	104,694.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	77.00
tblVehicleTrips	ST_TR	6.42	0.46
tblVehicleTrips	ST_TR	1.74	0.61
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	77.00
tblVehicleTrips	SU_TR	5.09	0.46
tblVehicleTrips	SU_TR	1.74	0.61

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	77.00
tblVehicleTrips	WD_TR	3.93	0.46
tblVehicleTrips	WD_TR	1.74	0.61

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0752	0.8873	0.6904	2.6500e-003	0.3122	0.0307	0.3428	0.0777	0.0285	0.1062	0.0000	244.6052	244.6052	0.0321	0.0203	251.4607
2024	0.8584	1.7953	2.7426	7.4700e-003	0.4250	0.0681	0.4931	0.1144	0.0640	0.1784	0.0000	677.9570	677.9570	0.0658	0.0317	689.0611
Maximum	**0.8584**	**1.7953**	**2.7426**	**7.4700e-003**	**0.4250**	**0.0681**	**0.4931**	**0.1144**	**0.0640**	**0.1784**	**0.0000**	**677.9570**	**677.9570**	**0.0658**	**0.0317**	**689.0611**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0752	0.8873	0.6904	2.6500e-003	0.1614	0.0307	0.1921	0.0411	0.0285	0.0696	0.0000	244.6051	244.6051	0.0321	0.0203	251.4606
2024	0.8584	1.7953	2.7426	7.4700e-003	0.4250	0.0681	0.4931	0.1144	0.0640	0.1784	0.0000	677.9567	677.9567	0.0658	0.0317	689.0609
Maximum	**0.8584**	**1.7953**	**2.7426**	**7.4700e-003**	**0.4250**	**0.0681**	**0.4931**	**0.1144**	**0.0640**	**0.1784**	**0.0000**	**677.9567**	**677.9567**	**0.0658**	**0.0317**	**689.0609**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.45**	**0.00**	**18.03**	**19.06**	**0.00**	**12.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-20-2023**	**2-19-2024**	1.2652	1.2652
2	**2-20-2024**	**5-19-2024**	0.6496	0.6496
3	**5-20-2024**	**8-19-2024**	0.7504	0.7504
4	**8-20-2024**	**9-30-2024**	0.8198	0.8198
		Highest	1.2652	1.2652

2.2 Overall Operational

Unmitigated Operational

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0170	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003
Energy	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	330.9165	330.9165	0.0197	4.4000e-003	332.7220
Mobile	0.1995	4.8150	2.6767	0.0332	1.7304	0.0587	1.7891	0.4771	0.0561	0.5332	0.0000	3,172.1885	3,172.1885	0.0445	0.4032	3,293.4559
Stationary	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Waste						0.0000	0.0000		0.0000	0.0000	50.3945	0.0000	50.3945	2.9782	0.0000	124.8503
Water						0.0000	0.0000		0.0000	0.0000	17.8315	136.7130	154.5445	1.8430	0.0446	213.9233
Total	**1.2395**	**4.9590**	**2.8030**	**0.0339**	**1.7304**	**0.0690**	**1.7994**	**0.4771**	**0.0664**	**0.5434**	**68.2260**	**3,644.5842**	**3,712.8102**	**4.8861**	**0.4523**	**3,969.7348**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0170	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003
Energy	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	330.9165	330.9165	0.0197	4.4000e-003	332.7220
Mobile	0.1995	4.8150	2.6767	0.0332	1.7304	0.0587	1.7891	0.4771	0.0561	0.5332	0.0000	3,172.1885	3,172.1885	0.0445	0.4032	3,293.4559
Stationary	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Waste						0.0000	0.0000		0.0000	0.0000	50.3945	0.0000	50.3945	2.9782	0.0000	124.8503
Water						0.0000	0.0000		0.0000	0.0000	17.8315	136.7130	154.5445	1.8430	0.0446	213.9233
Total	**1.2395**	**4.9590**	**2.8030**	**0.0339**	**1.7304**	**0.0690**	**1.7994**	**0.4771**	**0.0664**	**0.5434**	**68.2260**	**3,644.5842**	**3,712.8102**	**4.8861**	**0.4523**	**3,969.7348**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	

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2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	
5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.59

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 183,333; Non-Residential Outdoor: 61,111; Striped Parking Area: 14,610 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	97.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1535	0.0000	0.1535	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.1535**	**9.9800e-003**	**0.1635**	**0.0233**	**9.2800e-003**	**0.0325**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0743	0.0195	3.9000e-004	0.0122	8.5000e-004	0.0130	3.3400e-003	8.1000e-004	4.1500e-003	0.0000	37.5541	37.5541	5.3000e-004	5.9200e-003	39.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.6000e-004	6.0600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6798	1.6798	4.0000e-005	4.0000e-005	1.6933
Total	**2.0800e-003**	**0.0747**	**0.0256**	**4.1000e-004**	**0.0144**	**8.6000e-004**	**0.0152**	**3.9300e-003**	**8.2000e-004**	**4.7500e-003**	**0.0000**	**39.2339**	**39.2339**	**5.7000e-004**	**5.9600e-003**	**41.0240**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0599	0.0000	0.0599	9.0700e-003	0.0000	9.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0599**	**9.9800e-003**	**0.0699**	**9.0700e-003**	**9.2800e-003**	**0.0184**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0743	0.0195	3.9000e-004	0.0122	8.5000e-004	0.0130	3.3400e-003	8.1000e-004	4.1500e-003	0.0000	37.5541	37.5541	5.3000e-004	5.9200e-003	39.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.6000e-004	6.0600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6798	1.6798	4.0000e-005	4.0000e-005	1.6933
Total	**2.0800e-003**	**0.0747**	**0.0256**	**4.1000e-004**	**0.0144**	**8.6000e-004**	**0.0152**	**3.9300e-003**	**8.2000e-004**	**4.7500e-003**	**0.0000**	**39.2339**	**39.2339**	**5.7000e-004**	**5.9600e-003**	**41.0240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0936	0.0000	0.0936	0.0368	0.0000	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5352	54.5352	0.0176	0.0000	54.9762
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.0936**	**0.0142**	**0.1078**	**0.0368**	**0.0131**	**0.0499**	**0.0000**	**54.5352**	**54.5352**	**0.0176**	**0.0000**	**54.9762**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.1580	0.0416	8.2000e-004	0.0259	1.8100e-003	0.0277	7.1000e-003	1.7300e-003	8.8300e-003	0.0000	79.9023	79.9023	1.1300e-003	0.0126	83.6825
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	6.1000e-004	8.0900e-003	2.0000e-005	2.9600e-003	1.0000e-005	2.9700e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.2398	2.2398	5.0000e-005	6.0000e-005	2.2577
Total	**3.9600e-003**	**0.1586**	**0.0496**	**8.4000e-004**	**0.0288**	**1.8200e-003**	**0.0307**	**7.8900e-003**	**1.7400e-003**	**9.6300e-003**	**0.0000**	**82.1420**	**82.1420**	**1.1800e-003**	**0.0127**	**85.9401**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0365	0.0000	0.0365	0.0143	0.0000	0.0143	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5351	54.5351	0.0176	0.0000	54.9761
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.0365**	**0.0142**	**0.0507**	**0.0143**	**0.0131**	**0.0275**	**0.0000**	**54.5351**	**54.5351**	**0.0176**	**0.0000**	**54.9761**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.1580	0.0416	8.2000e-004	0.0259	1.8100e-003	0.0277	7.1000e-003	1.7300e-003	8.8300e-003	0.0000	79.9023	79.9023	1.1300e-003	0.0126	83.6825
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	6.1000e-004	8.0900e-003	2.0000e-005	2.9600e-003	1.0000e-005	2.9700e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.2398	2.2398	5.0000e-005	6.0000e-005	2.2577
Total	**3.9600e-003**	**0.1586**	**0.0496**	**8.4000e-004**	**0.0288**	**1.8200e-003**	**0.0307**	**7.8900e-003**	**1.7400e-003**	**9.6300e-003**	**0.0000**	**82.1420**	**82.1420**	**1.1800e-003**	**0.0127**	**85.9401**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8600e-003	0.0719	0.0812	1.3000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	11.5902	11.5902	2.7600e-003	0.0000	11.6592
Total	**7.8600e-003**	**0.0719**	**0.0812**	**1.3000e-004**		**3.5000e-003**	**3.5000e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.5902**	**11.5902**	**2.7600e-003**	**0.0000**	**11.6592**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0181	6.8300e-003	1.0000e-004	3.5100e-003	1.6000e-004	3.6600e-003	1.0100e-003	1.5000e-004	1.1600e-003	0.0000	9.2253	9.2253	9.0000e-005	1.3600e-003	9.6337
Worker	4.8700e-003	3.8100e-003	0.0501	1.5000e-004	0.0184	9.0000e-005	0.0184	4.8700e-003	8.0000e-005	4.9500e-003	0.0000	13.8865	13.8865	3.0000e-004	3.5000e-004	13.9975
Total	**5.4200e-003**	**0.0220**	**0.0570**	**2.5000e-004**	**0.0219**	**2.5000e-004**	**0.0221**	**5.8800e-003**	**2.3000e-004**	**6.1100e-003**	**0.0000**	**23.1118**	**23.1118**	**3.9000e-004**	**1.7100e-003**	**23.6312**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8600e-003	0.0719	0.0812	1.3000e-004		3.5000e-003	3.5000e-003		3.2900e-003	3.2900e-003	0.0000	11.5902	11.5902	2.7600e-003	0.0000	11.6592
Total	**7.8600e-003**	**0.0719**	**0.0812**	**1.3000e-004**		**3.5000e-003**	**3.5000e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.5902**	**11.5902**	**2.7600e-003**	**0.0000**	**11.6592**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0181	6.8300e-003	1.0000e-004	3.5100e-003	1.6000e-004	3.6600e-003	1.0100e-003	1.5000e-004	1.1600e-003	0.0000	9.2253	9.2253	9.0000e-005	1.3600e-003	9.6337
Worker	4.8700e-003	3.8100e-003	0.0501	1.5000e-004	0.0184	9.0000e-005	0.0184	4.8700e-003	8.0000e-005	4.9500e-003	0.0000	13.8865	13.8865	3.0000e-004	3.5000e-004	13.9975
Total	**5.4200e-003**	**0.0220**	**0.0570**	**2.5000e-004**	**0.0219**	**2.5000e-004**	**0.0221**	**5.8800e-003**	**2.3000e-004**	**6.1100e-003**	**0.0000**	**23.1118**	**23.1118**	**3.9000e-004**	**1.7100e-003**	**23.6312**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1398	1.2772	1.5359	2.5600e-003		0.0583	0.0583		0.0548	0.0548	0.0000	220.2567	220.2567	0.0521	0.0000	221.5588
Total	**0.1398**	**1.2772**	**1.5359**	**2.5600e-003**		**0.0583**	**0.0583**		**0.0548**	**0.0548**	**0.0000**	**220.2567**	**220.2567**	**0.0521**	**0.0000**	**221.5588**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0103	0.3447	0.1282	1.7900e-003	0.0666	2.9800e-003	0.0696	0.0192	2.8500e-003	0.0221	0.0000	172.5805	172.5805	1.8000e-003	0.0255	180.2113
Worker	0.0866	0.0643	0.8896	2.7900e-003	0.3487	1.5500e-003	0.3503	0.0926	1.4200e-003	0.0940	0.0000	255.4913	255.4913	5.1700e-003	6.1200e-003	257.4432
Total	**0.0969**	**0.4090**	**1.0178**	**4.5800e-003**	**0.4153**	**4.5300e-003**	**0.4199**	**0.1118**	**4.2700e-003**	**0.1161**	**0.0000**	**428.0718**	**428.0718**	**6.9700e-003**	**0.0316**	**437.6544**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1398	1.2772	1.5359	2.5600e-003		0.0583	0.0583		0.0548	0.0548	0.0000	220.2564	220.2564	0.0521	0.0000	221.5585
Total	**0.1398**	**1.2772**	**1.5359**	**2.5600e-003**		**0.0583**	**0.0583**		**0.0548**	**0.0548**	**0.0000**	**220.2564**	**220.2564**	**0.0521**	**0.0000**	**221.5585**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0103	0.3447	0.1282	1.7900e-003	0.0666	2.9800e-003	0.0696	0.0192	2.8500e-003	0.0221	0.0000	172.5805	172.5805	1.8000e-003	0.0255	180.2113
Worker	0.0866	0.0643	0.8896	2.7900e-003	0.3487	1.5500e-003	0.3503	0.0926	1.4200e-003	0.0940	0.0000	255.4913	255.4913	5.1700e-003	6.1200e-003	257.4432
Total	**0.0969**	**0.4090**	**1.0178**	**4.5800e-003**	**0.4153**	**4.5300e-003**	**0.4199**	**0.1118**	**4.2700e-003**	**0.1161**	**0.0000**	**428.0718**	**428.0718**	**6.9700e-003**	**0.0316**	**437.6544**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0172**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.6600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6266	1.6266	3.0000e-005	4.0000e-005	1.6391
Total	**5.5000e-004**	**4.1000e-004**	**5.6600e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6266**	**1.6266**	**3.0000e-005**	**4.0000e-005**	**1.6391**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0172**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.1000e-004	5.6600e-003	2.0000e-005	2.2200e-003	1.0000e-005	2.2300e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6266	1.6266	3.0000e-005	4.0000e-005	1.6391
Total	**5.5000e-004**	**4.1000e-004**	**5.6600e-003**	**2.0000e-005**	**2.2200e-003**	**1.0000e-005**	**2.2300e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6266**	**1.6266**	**3.0000e-005**	**4.0000e-005**	**1.6391**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.6022**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.3600e-003	0.0189	6.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9600e-003	3.0000e-005	2.0000e-003	0.0000	5.4221	5.4221	1.1000e-004	1.3000e-004	5.4636
Total	**1.8400e-003**	**1.3600e-003**	**0.0189**	**6.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9600e-003**	**3.0000e-005**	**2.0000e-003**	**0.0000**	**5.4221**	**5.4221**	**1.1000e-004**	**1.3000e-004**	**5.4636**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.6022**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.3600e-003	0.0189	6.0000e-005	7.4000e-003	3.0000e-005	7.4300e-003	1.9600e-003	3.0000e-005	2.0000e-003	0.0000	5.4221	5.4221	1.1000e-004	1.3000e-004	5.4636
Total	**1.8400e-003**	**1.3600e-003**	**0.0189**	**6.0000e-005**	**7.4000e-003**	**3.0000e-005**	**7.4300e-003**	**1.9600e-003**	**3.0000e-005**	**2.0000e-003**	**0.0000**	**5.4221**	**5.4221**	**1.1000e-004**	**1.3000e-004**	**5.4636**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1995	4.8150	2.6767	0.0332	1.7304	0.0587	1.7891	0.4771	0.0561	0.5332	0.0000	3,172.1885	3,172.1885	0.0445	0.4032	3,293.4559
Unmitigated	0.1995	4.8150	2.6767	0.0332	1.7304	0.0587	1.7891	0.4771	0.0561	0.5332	0.0000	3,172.1885	3,172.1885	0.0445	0.4032	3,293.4559

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	1,712,815	1,712,815
Manufacturing	28.11	28.11	28.11	511,613	511,613
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	1,968,718	1,968,718
Total	598.28	598.28	598.28	4,193,146	4,193,146

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	77	19	4
Manufacturing	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	205.3655	205.3655	0.0173	2.1000e-003	206.4250
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	205.3655	205.3655	0.0173	2.1000e-003	206.4250
NaturalGas Mitigated	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5510	125.5510	2.4100e-003	2.3000e-003	126.2970

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Unmitigated	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5510	125.5510	2.4100e-003	2.3000e-003	126.2970

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	20580	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0982	1.0982	2.0000e-005	2.0000e-005	1.1048
Manufacturing	1.97572e+006	0.0107	0.0969	0.0814	5.8000e-004		7.3600e-003	7.3600e-003		7.3600e-003	7.3600e-003	0.0000	105.4319	105.4319	2.0200e-003	1.9300e-003	106.0584
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	356437	1.9200e-003	0.0175	0.0147	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0209	19.0209	3.6000e-004	3.5000e-004	19.1339
Total		**0.0127**	**0.1153**	**0.0969**	**6.9000e-004**		**8.7700e-003**	**8.7700e-003**		**8.7700e-003**	**8.7700e-003**	**0.0000**	**125.5510**	**125.5510**	**2.4000e-003**	**2.3000e-003**	**126.2970**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	20580	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0982	1.0982	2.0000e-005	2.0000e-005	1.1048
Manufacturing	1.97572e+006	0.0107	0.0969	0.0814	5.8000e-004		7.3600e-003	7.3600e-003		7.3600e-003	7.3600e-003	0.0000	105.4319	105.4319	2.0200e-003	1.9300e-003	106.0584
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	356437	1.9200e-003	0.0175	0.0147	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0209	19.0209	3.6000e-004	3.5000e-004	19.1339
Total		**0.0127**	**0.1153**	**0.0969**	**6.9000e-004**		**8.7700e-003**	**8.7700e-003**		**8.7700e-003**	**8.7700e-003**	**0.0000**	**125.5510**	**125.5510**	**2.4000e-003**	**2.3000e-003**	**126.2970**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
General Office Building	55140		9.7788	8.3000e-004	1.0000e-004	9.8293
Manufacturing	606221		107.5106	9.0700e-003	1.1000e-003	108.0652
Parking Lot	85225.1		15.1143	1.2800e-003	1.5000e-004	15.1923
Unrefrigerated Warehouse-No Rail	411410		72.9618	6.1600e-003	7.5000e-004	73.3382
Total			**205.3655**	**0.0173**	**2.1000e-003**	**206.4250**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
General Office Building	55140		9.7788	8.3000e-004	1.0000e-004	9.8293
Manufacturing	606221		107.5106	9.0700e-003	1.1000e-003	108.0652
Parking Lot	85225.1		15.1143	1.2800e-003	1.5000e-004	15.1923
Unrefrigerated Warehouse-No Rail	411410		72.9618	6.1600e-003	7.5000e-004	73.3382
Total			**205.3655**	**0.0173**	**2.1000e-003**	**206.4250**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
	Appendix A															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	1.0170	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003
Unmitigated	1.0170	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1167					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003
Total	**1.0170**	**3.0000e-005**	**3.2200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.2600e-003**	**6.2600e-003**	**2.0000e-005**	**0.0000**	**6.6700e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1167					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2600e-003	6.2600e-003	2.0000e-005	0.0000	6.6700e-003
Total	**1.0170**	**3.0000e-005**	**3.2200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.2600e-003**	**6.2600e-003**	**2.0000e-005**	**0.0000**	**6.6700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		154.5445	1.8430	0.0446	213.9233
Unmitigated		154.5445	1.8430	0.0446	213.9233

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 2.85956		5.6342	4.8000e-004	6.0000e-005	5.6633
General Office Building	1.0664 / 0.653602		4.0887	0.0351	8.6000e-004	5.2212
Manufacturing	14.1317 / 0		37.1165	0.4632	0.0112	52.0370
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	41.0076 / 0		107.7051	1.3442	0.0325	151.0018
Total			**154.5445**	**1.8430**	**0.0447**	**213.9233**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 2.85956		5.6342	4.8000e-004	6.0000e-005	5.6633
General Office Building	1.0664 / 0.653602		4.0887	0.0351	8.6000e-004	5.2212
Manufacturing	14.1317 / 0		37.1165	0.4632	0.0112	52.0370
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	41.0076 / 0		107.7051	1.3442	0.0325	151.0018
Total			**154.5445**	**1.8430**	**0.0447**	**213.9233**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated		50.3945	2.9782	0.0000	124.8503
Unmitigated		50.3945	2.9782	0.0000	124.8503

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.21		0.0426	2.5200e-003	0.0000	0.1056
General Office Building	5.58		1.1327	0.0669	0.0000	2.8062
Manufacturing	75.78		15.3827	0.9091	0.0000	38.1099
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	166.69		33.8366	1.9997	0.0000	83.8287
Total			**50.3945**	**2.9782**	**0.0000**	**124.8503**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0.21		0.0426	2.5200e-003	0.0000	0.1056
General Office Building	5.58		1.1327	0.0669	0.0000	2.8062
Manufacturing	75.78		15.3827	0.9091	0.0000	38.1099
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	166.69		33.8366	1.9997	0.0000	83.8287
Total			**50.3945**	**2.9782**	**0.0000**	**124.8503**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (175 - 300 HP)	0.0103	0.0287	0.0262	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7600	4.7600	6.7000e-004	0.0000	4.7767
Total	**0.0103**	**0.0287**	**0.0262**	**5.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**4.7600**	**4.7600**	**6.7000e-004**	**0.0000**	**4.7767**

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S2

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Trips and VMT -

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation -

Fleet Mix - Note 7

Stationary Sources - Emergency Generators and Fire Pumps - Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	122,222.00	61,111.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	366,666.00	183,333.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	61,110.00	61,111.00
tblLandUse	LandUseSquareFeet	177,330.00	177,332.00
tblLandUse	LandUseSquareFeet	104,544.00	104,694.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	77.00
tblVehicleTrips	ST_TR	6.42	0.46
tblVehicleTrips	ST_TR	1.74	0.61
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	77.00
tblVehicleTrips	SU_TR	5.09	0.46
tblVehicleTrips	SU_TR	1.74	0.61

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	77.00
tblVehicleTrips	WD_TR	3.93	0.46
tblVehicleTrips	WD_TR	1.74	0.61

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.2259	78.1208	55.4198	0.2267	29.0942	2.6902	31.7844	7.1990	2.4950	9.6940	0.0000	23,163.4388	23,163.4388	3.1867	2.0492	23,853.7584
2024	63.0124	27.0958	43.8420	0.1022	5.1965	1.1304	5.9216	1.3941	1.0538	2.3082	0.0000	10,155.0466	10,155.0466	1.4040	0.3766	10,299.5177
Maximum	**63.0124**	**78.1208**	**55.4198**	**0.2267**	**29.0942**	**2.6902**	**31.7844**	**7.1990**	**2.4950**	**9.6940**	**0.0000**	**23,163.4388**	**23,163.4388**	**3.1867**	**2.0492**	**23,853.7584**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.2259	78.1208	55.4198	0.2267	14.0222	2.6902	16.7124	3.5382	2.4950	6.0332	0.0000	23,163.4388	23,163.4388	3.1867	2.0492	23,853.7584
2024	63.0124	27.0958	43.8420	0.1022	5.1965	1.1304	5.9216	1.3941	1.0538	2.3082	0.0000	10,155.0466	10,155.0466	1.4040	0.3766	10,299.5177
Maximum	**63.0124**	**78.1208**	**55.4198**	**0.2267**	**14.0222**	**2.6902**	**16.7124**	**3.5382**	**2.4950**	**6.0332**	**0.0000**	**23,163.4388**	**23,163.4388**	**3.1867**	**2.0492**	**23,853.7584**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.95**	**0.00**	**39.97**	**42.60**	**0.00**	**30.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	1.2397	25.0330	16.0345	0.1847	9.6538	0.3230	9.9767	2.6571	0.3084	2.9655		19,454.0337	19,454.0337	0.2676	2.4399	20,187.8107
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.9401**	**25.8257**	**16.7375**	**0.1888**	**9.6538**	**0.3795**	**10.0333**	**2.6571**	**0.3650**	**3.0221**		**20,241.8075**	**20,241.8075**	**0.2864**	**2.4538**	**20,980.1975**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	1.2397	25.0330	16.0345	0.1847	9.6538	0.3230	9.9767	2.6571	0.3084	2.9655		19,454.0337	19,454.0337	0.2676	2.4399	20,187.8107
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.9401**	**25.8257**	**16.7375**	**0.1888**	**9.6538**	**0.3795**	**10.0333**	**2.6571**	**0.3650**	**3.0221**		**20,241.8075**	**20,241.8075**	**0.2864**	**2.4538**	**20,980.1975**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.59

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 183,333; Non-Residential Outdoor: 61,111; Striped Parking Area: 14,610 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	97.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1543	7.0404	1.9360	0.0387	1.2339	0.0850	1.3189	0.3383	0.0813	0.4196		4,136.9096	4,136.9096	0.0587	0.6519	4,332.6338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0654	0.0432	0.7158	1.9800e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		199.7709	199.7709	4.0800e-003	4.4300e-003	201.1942
Total	**0.2197**	**7.0836**	**2.6518**	**0.0407**	**1.4597**	**0.0860**	**1.5457**	**0.3982**	**0.0823**	**0.4804**		**4,336.6805**	**4,336.6805**	**0.0628**	**0.6563**	**4,533.8279**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1543	7.0404	1.9360	0.0387	1.2339	0.0850	1.3189	0.3383	0.0813	0.4196		4,136.9096	4,136.9096	0.0587	0.6519	4,332.6338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0654	0.0432	0.7158	1.9800e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		199.7709	199.7709	4.0800e-003	4.4300e-003	201.1942
Total	**0.2197**	**7.0836**	**2.6518**	**0.0407**	**1.4597**	**0.0860**	**1.5457**	**0.3982**	**0.0823**	**0.4804**		**4,336.6805**	**4,336.6805**	**0.0628**	**0.6563**	**4,533.8279**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3283	14.9796	4.1192	0.0824	2.6253	0.1808	2.8061	0.7197	0.1730	0.8927		8,801.9353	8,801.9353	0.1249	1.3870	9,218.3697
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0872	0.0576	0.9544	2.6400e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		266.3613	266.3613	5.4400e-003	5.9100e-003	268.2589
Total	**0.4154**	**15.0372**	**5.0735**	**0.0851**	**2.9263**	**0.1822**	**3.1085**	**0.7996**	**0.1742**	**0.9738**		**9,068.2965**	**9,068.2965**	**0.1303**	**1.3929**	**9,486.6286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3283	14.9796	4.1192	0.0824	2.6253	0.1808	2.8061	0.7197	0.1730	0.8927		8,801.9353	8,801.9353	0.1249	1.3870	9,218.3697
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0872	0.0576	0.9544	2.6400e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		266.3613	266.3613	5.4400e-003	5.9100e-003	268.2589
Total	**0.4154**	**15.0372**	**5.0735**	**0.0851**	**2.9263**	**0.1822**	**3.1085**	**0.7996**	**0.1742**	**0.9738**		**9,068.2965**	**9,068.2965**	**0.1303**	**1.3929**	**9,486.6286**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1145	3.4535	1.3459	0.0192	0.7110	0.0315	0.7425	0.2047	0.0301	0.2348		2,031.9466	2,031.9466	0.0203	0.3000	2,121.8510
Worker	1.0808	0.7140	11.8341	0.0327	3.7329	0.0171	3.7500	0.9899	0.0157	1.0056		3,302.8796	3,302.8796	0.0674	0.0733	3,326.4100
Total	**1.1953**	**4.1675**	**13.1800**	**0.0518**	**4.4439**	**0.0486**	**4.4925**	**1.1946**	**0.0458**	**1.2404**		**5,334.8263**	**5,334.8263**	**0.0877**	**0.3733**	**5,448.2611**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1145	3.4535	1.3459	0.0192	0.7110	0.0315	0.7425	0.2047	0.0301	0.2348		2,031.9466	2,031.9466	0.0203	0.3000	2,121.8510
Worker	1.0808	0.7140	11.8341	0.0327	3.7329	0.0171	3.7500	0.9899	0.0157	1.0056		3,302.8796	3,302.8796	0.0674	0.0733	3,326.4100
Total	**1.1953**	**4.1675**	**13.1800**	**0.0518**	**4.4439**	**0.0486**	**4.4925**	**1.1946**	**0.0458**	**1.2404**		**5,334.8263**	**5,334.8263**	**0.0877**	**0.3733**	**5,448.2611**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1126	3.4544	1.3298	0.0189	0.7109	0.0313	0.7422	0.2047	0.0299	0.2346		2,000.6392	2,000.6392	0.0211	0.2949	2,089.0501
Worker	1.0084	0.6347	11.0512	0.0316	3.7329	0.0163	3.7492	0.9899	0.0150	1.0049		3,197.7491	3,197.7491	0.0609	0.0680	3,219.5338
Total	**1.1210**	**4.0890**	**12.3810**	**0.0505**	**4.4439**	**0.0476**	**4.4915**	**1.1945**	**0.0449**	**1.2395**		**5,198.3883**	**5,198.3883**	**0.0820**	**0.3629**	**5,308.5839**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1126	3.4544	1.3298	0.0189	0.7109	0.0313	0.7422	0.2047	0.0299	0.2346		2,000.6392	2,000.6392	0.0211	0.2949	2,089.0501
Worker	1.0084	0.6347	11.0512	0.0316	3.7329	0.0163	3.7492	0.9899	0.0150	1.0049		3,197.7491	3,197.7491	0.0609	0.0680	3,219.5338
Total	**1.1210**	**4.0890**	**12.3810**	**0.0505**	**4.4439**	**0.0476**	**4.4915**	**1.1945**	**0.0449**	**1.2395**		**5,198.3883**	**5,198.3883**	**0.0820**	**0.3629**	**5,308.5839**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0384	0.6684	1.9100e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		193.4122	193.4122	3.6800e-003	4.1100e-003	194.7299
Total	**0.0610**	**0.0384**	**0.6684**	**1.9100e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**193.4122**	**193.4122**	**3.6800e-003**	**4.1100e-003**	**194.7299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0384	0.6684	1.9100e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		193.4122	193.4122	3.6800e-003	4.1100e-003	194.7299
Total	**0.0610**	**0.0384**	**0.6684**	**1.9100e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**193.4122**	**193.4122**	**3.6800e-003**	**4.1100e-003**	**194.7299**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2033	0.1280	2.2281	6.3800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		644.7075	644.7075	0.0123	0.0137	649.0996
Total	**0.2033**	**0.1280**	**2.2281**	**6.3800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**644.7075**	**644.7075**	**0.0123**	**0.0137**	**649.0996**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2033	0.1280	2.2281	6.3800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		644.7075	644.7075	0.0123	0.0137	649.0996
Total	**0.2033**	**0.1280**	**2.2281**	**6.3800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**644.7075**	**644.7075**	**0.0123**	**0.0137**	**649.0996**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2397	25.0330	16.0345	0.1847	9.6538	0.3230	9.9767	2.6571	0.3084	2.9655		19,454.0337	19,454.0337	0.2676	2.4399	20,187.8107

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	1.2397	25.0330	16.0345	0.1847	9.6538	0.3230	9.9767	2.6571	0.3084	2.9655		19,454.0337	19,454.0337	0.2676	2.4399	20,187.8107

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	1,712,815	1,712,815
Manufacturing	28.11	28.11	28.11	511,613	511,613
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	1,968,718	1,968,718
Total	598.28	598.28	598.28	4,193,146	4,193,146

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	77	19	4
Manufacturing	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
NaturalGas Unmitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	56.3836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5412.93	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	976.541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0563836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5.41293	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.976541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
	Appendix A															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Unmitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S2

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Trips and VMT -

Demolition - Note 4

Grading - Note 3

Architectural Coating - Note 5

Vehicle Trips - Note 6

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Note 9

Area Mitigation - X

Fleet Mix - Note 7

Stationary Sources - Emergency Generators and Fire Pumps - Note 8

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	122,222.00	61,111.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	366,666.00	183,333.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	61,110.00	61,111.00
tblLandUse	LandUseSquareFeet	177,330.00	177,332.00
tblLandUse	LandUseSquareFeet	104,544.00	104,694.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CC_TL	10.10	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CNW_TL	7.90	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	CW_TL	18.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	77.00
tblVehicleTrips	ST_TR	6.42	0.46
tblVehicleTrips	ST_TR	1.74	0.61
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	77.00
tblVehicleTrips	SU_TR	5.09	0.46
tblVehicleTrips	SU_TR	1.74	0.61

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	77.00
tblVehicleTrips	WD_TR	3.93	0.46
tblVehicleTrips	WD_TR	1.74	0.61

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.1807	79.4366	55.2156	0.2265	29.0942	2.6906	31.7848	7.1990	2.4954	9.6944	0.0000	23,139.7420	23,139.7420	3.1845	2.0526	23,831.0330
2024	62.9592	27.3277	41.5584	0.0991	5.1965	1.1305	5.9217	1.3941	1.0539	2.3083	0.0000	9,840.4495	9,840.4495	1.4020	0.3794	9,985.6231
Maximum	**62.9592**	**79.4366**	**55.2156**	**0.2265**	**29.0942**	**2.6906**	**31.7848**	**7.1990**	**2.4954**	**9.6944**	**0.0000**	**23,139.7420**	**23,139.7420**	**3.1845**	**2.0526**	**23,831.0330**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.1807	79.4366	55.2156	0.2265	14.0222	2.6906	16.7128	3.5382	2.4954	6.0336	0.0000	23,139.7419	23,139.7419	3.1845	2.0526	23,831.0330
2024	62.9592	27.3277	41.5584	0.0991	5.1965	1.1305	5.9217	1.3941	1.0539	2.3083	0.0000	9,840.4495	9,840.4495	1.4020	0.3794	9,985.6231
Maximum	**62.9592**	**79.4366**	**55.2156**	**0.2265**	**14.0222**	**2.6906**	**16.7128**	**3.5382**	**2.4954**	**6.0336**	**0.0000**	**23,139.7419**	**23,139.7419**	**3.1845**	**2.0526**	**23,831.0330**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.95**	**0.00**	**39.97**	**42.60**	**0.00**	**30.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	1.0746	26.3864	14.3445	0.1820	9.6538	0.3231	9.9769	2.6571	0.3085	2.9657		19,176.6896	19,176.6896	0.2695	2.4444	19,911.8632
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.7749**	**27.1791**	**15.0475**	**0.1861**	**9.6538**	**0.3797**	**10.0335**	**2.6571**	**0.3651**	**3.0223**		**19,964.4633**	**19,964.4633**	**0.2882**	**2.4583**	**20,704.2500**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	1.0746	26.3864	14.3445	0.1820	9.6538	0.3231	9.9769	2.6571	0.3085	2.9657		19,176.6896	19,176.6896	0.2695	2.4444	19,911.8632
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.7749**	**27.1791**	**15.0475**	**0.1861**	**9.6538**	**0.3797**	**10.0335**	**2.6571**	**0.3651**	**3.0223**		**19,964.4633**	**19,964.4633**	**0.2882**	**2.4583**	**20,704.2500**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.59

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 183,333; Non-Residential Outdoor: 61,111; Striped Parking Area: 14,610 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	97.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1418	7.4599	1.9768	0.0388	1.2339	0.0851	1.3190	0.3383	0.0814	0.4197		4,143.3793	4,143.3793	0.0581	0.6529	4,339.3934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0448	0.5736	1.7900e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		180.9430	180.9430	3.9700e-003	4.5400e-003	182.3939
Total	**0.2045**	**7.5047**	**2.5504**	**0.0406**	**1.4597**	**0.0861**	**1.5458**	**0.3982**	**0.0824**	**0.4805**		**4,324.3223**	**4,324.3223**	**0.0621**	**0.6574**	**4,521.7873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1418	7.4599	1.9768	0.0388	1.2339	0.0851	1.3190	0.3383	0.0814	0.4197		4,143.3793	4,143.3793	0.0581	0.6529	4,339.3934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0448	0.5736	1.7900e-003	0.2258	1.0300e-003	0.2268	0.0599	9.5000e-004	0.0608		180.9430	180.9430	3.9700e-003	4.5400e-003	182.3939
Total	**0.2045**	**7.5047**	**2.5504**	**0.0406**	**1.4597**	**0.0861**	**1.5458**	**0.3982**	**0.0824**	**0.4805**		**4,324.3223**	**4,324.3223**	**0.0621**	**0.6574**	**4,521.7873**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3017	15.8722	4.2059	0.0826	2.6253	0.1811	2.8063	0.7197	0.1732	0.8930		8,815.7006	8,815.7006	0.1236	1.3891	9,232.7520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0836	0.0597	0.7648	2.3900e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		241.2573	241.2573	5.2900e-003	6.0500e-003	243.1919
Total	**0.3853**	**15.9319**	**4.9707**	**0.0849**	**2.9263**	**0.1824**	**3.1087**	**0.7996**	**0.1745**	**0.9741**		**9,056.9579**	**9,056.9579**	**0.1289**	**1.3952**	**9,475.9438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3017	15.8722	4.2059	0.0826	2.6253	0.1811	2.8063	0.7197	0.1732	0.8930		8,815.7006	8,815.7006	0.1236	1.3891	9,232.7520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0836	0.0597	0.7648	2.3900e-003	0.3010	1.3800e-003	0.3024	0.0798	1.2700e-003	0.0811		241.2573	241.2573	5.2900e-003	6.0500e-003	243.1919
Total	**0.3853**	**15.9319**	**4.9707**	**0.0849**	**2.9263**	**0.1824**	**3.1087**	**0.7996**	**0.1745**	**0.9741**		**9,056.9579**	**9,056.9579**	**0.1289**	**1.3952**	**9,475.9438**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1065	3.6604	1.3894	0.0192	0.7110	0.0316	0.7426	0.2047	0.0302	0.2349		2,036.4059	2,036.4059	0.0200	0.3009	2,126.5716
Worker	1.0369	0.7407	9.4836	0.0296	3.7329	0.0171	3.7500	0.9899	0.0157	1.0056		2,991.5905	2,991.5905	0.0656	0.0750	3,015.5790
Total	**1.1434**	**4.4011**	**10.8729**	**0.0488**	**4.4439**	**0.0487**	**4.4926**	**1.1946**	**0.0459**	**1.2405**		**5,027.9964**	**5,027.9964**	**0.0856**	**0.3759**	**5,142.1507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1065	3.6604	1.3894	0.0192	0.7110	0.0316	0.7426	0.2047	0.0302	0.2349		2,036.4059	2,036.4059	0.0200	0.3009	2,126.5716
Worker	1.0369	0.7407	9.4836	0.0296	3.7329	0.0171	3.7500	0.9899	0.0157	1.0056		2,991.5905	2,991.5905	0.0656	0.0750	3,015.5790
Total	**1.1434**	**4.4011**	**10.8729**	**0.0488**	**4.4439**	**0.0487**	**4.4926**	**1.1946**	**0.0459**	**1.2405**		**5,027.9964**	**5,027.9964**	**0.0856**	**0.3759**	**5,142.1507**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1046	3.6615	1.3732	0.0189	0.7109	0.0314	0.7423	0.2047	0.0300	0.2347		2,005.0606	2,005.0606	0.0207	0.2958	2,093.7261
Worker	0.9708	0.6581	8.8569	0.0287	3.7329	0.0163	3.7492	0.9899	0.0150	1.0049		2,896.9255	2,896.9255	0.0594	0.0695	2,919.1326
Total	**1.0754**	**4.3196**	**10.2302**	**0.0476**	**4.4439**	**0.0477**	**4.4916**	**1.1945**	**0.0450**	**1.2395**		**4,901.9861**	**4,901.9861**	**0.0801**	**0.3653**	**5,012.8587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1046	3.6615	1.3732	0.0189	0.7109	0.0314	0.7423	0.2047	0.0300	0.2347		2,005.0606	2,005.0606	0.0207	0.2958	2,093.7261
Worker	0.9708	0.6581	8.8569	0.0287	3.7329	0.0163	3.7492	0.9899	0.0150	1.0049		2,896.9255	2,896.9255	0.0594	0.0695	2,919.1326
Total	**1.0754**	**4.3196**	**10.2302**	**0.0476**	**4.4439**	**0.0477**	**4.4916**	**1.1945**	**0.0450**	**1.2395**		**4,901.9861**	**4,901.9861**	**0.0801**	**0.3653**	**5,012.8587**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0587	0.0398	0.5357	1.7300e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		175.2173	175.2173	3.5900e-003	4.2100e-003	176.5604
Total	**0.0587**	**0.0398**	**0.5357**	**1.7300e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**175.2173**	**175.2173**	**3.5900e-003**	**4.2100e-003**	**176.5604**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0587	0.0398	0.5357	1.7300e-003	0.2258	9.8000e-004	0.2268	0.0599	9.1000e-004	0.0608		175.2173	175.2173	3.5900e-003	4.2100e-003	176.5604
Total	**0.0587**	**0.0398**	**0.5357**	**1.7300e-003**	**0.2258**	**9.8000e-004**	**0.2268**	**0.0599**	**9.1000e-004**	**0.0608**		**175.2173**	**175.2173**	**3.5900e-003**	**4.2100e-003**	**176.5604**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1957	0.1327	1.7857	5.7800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		584.0576	584.0576	0.0120	0.0140	588.5348
Total	**0.1957**	**0.1327**	**1.7857**	**5.7800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**584.0576**	**584.0576**	**0.0120**	**0.0140**	**588.5348**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1957	0.1327	1.7857	5.7800e-003	0.7526	3.2800e-003	0.7559	0.1996	3.0200e-003	0.2026		584.0576	584.0576	0.0120	0.0140	588.5348
Total	**0.1957**	**0.1327**	**1.7857**	**5.7800e-003**	**0.7526**	**3.2800e-003**	**0.7559**	**0.1996**	**3.0200e-003**	**0.2026**		**584.0576**	**584.0576**	**0.0120**	**0.0140**	**588.5348**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0746	26.3864	14.3445	0.1820	9.6538	0.3231	9.9769	2.6571	0.3085	2.9657		19,176.6896	19,176.6896	0.2695	2.4444	19,911.8632

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	1.0746	26.3864	14.3445	0.1820	9.6538	0.3231	9.9769	2.6571	0.3085	2.9657		19,176.6896	19,176.6896	0.2695	2.4444	19,911.8632

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	1,712,815	1,712,815
Manufacturing	28.11	28.11	28.11	511,613	511,613
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	1,968,718	1,968,718
Total	598.28	598.28	598.28	4,193,146	4,193,146

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	18.50	10.10	7.90	33.00	48.00	19.00	77	19	4
Manufacturing	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
NaturalGas Unmitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	56.3836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5412.93	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	976.541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0563836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5.41293	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.976541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
	Appendix A															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Unmitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Frontage Construction LST

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.12	1000sqft	0.05	2,125.00	0
Parking Lot	1.84	1000sqft	0.04	1,845.00	0
City Park	0.47	Acre	0.47	20,343.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The construction vehicle trips are reduced to 0.25 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Operational trips are reduced to zero because no operational trips are associated with the frontage construction.

Consumer Products -

Area Coating -

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - SCAQMD dust control measure.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	2,120.00	2,125.00
tblLandUse	LandUseSquareFeet	1,840.00	1,845.00
tblLandUse	LandUseSquareFeet	20,473.20	20,343.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9467	10.1828	7.1118	0.0141	5.3135	0.4201	5.7337	2.5690	0.3865	2.9555	0.0000	1,367.6423	1,367.6423	0.4423	1.1100e-003	1,378.8466
Maximum	**0.9467**	**10.1828**	**7.1118**	**0.0141**	**5.3135**	**0.4201**	**5.7337**	**2.5690**	**0.3865**	**2.9555**	**0.0000**	**1,367.6423**	**1,367.6423**	**0.4423**	**1.1100e-003**	**1,378.8466**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9467	10.1828	7.1118	0.0141	2.0733	0.4201	2.4934	1.0022	0.3865	1.3887	0.0000	1,367.6423	1,367.6423	0.4423	1.1100e-003	1,378.8466
Maximum	**0.9467**	**10.1828**	**7.1118**	**0.0141**	**2.0733**	**0.4201**	**2.4934**	**1.0022**	**0.3865**	**1.3887**	**0.0000**	**1,367.6423**	**1,367.6423**	**0.4423**	**1.1100e-003**	**1,378.8466**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.98**	**0.00**	**56.51**	**60.99**	**0.00**	**53.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/27/2023	11/28/2023	5	2	
2	Paving	Paving	11/29/2023	12/5/2023	5	5	
3	Architectural Coating	Architectural Coating	12/6/2023	12/12/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 238 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**5.3119**	**0.4201**	**5.7320**	**2.5686**	**0.3865**	**2.9550**		**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	3.9200e-003	0.0404	3.0000e-005	1.6000e-003	4.0000e-005	1.6400e-003	4.3000e-004	4.0000e-005	4.7000e-004		2.8709	2.8709	8.8000e-004	4.9000e-004	3.0404
Total	**0.0132**	**3.9200e-003**	**0.0404**	**3.0000e-005**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**4.3000e-004**	**4.0000e-005**	**4.7000e-004**		**2.8709**	**2.8709**	**8.8000e-004**	**4.9000e-004**	**3.0404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0717	0.0000	2.0717	1.0017	0.0000	1.0017			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**2.0717**	**0.4201**	**2.4918**	**1.0017**	**0.3865**	**1.3882**	**0.0000**	**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	3.9200e-003	0.0404	3.0000e-005	1.6000e-003	4.0000e-005	1.6400e-003	4.3000e-004	4.0000e-005	4.7000e-004		2.8709	2.8709	8.8000e-004	4.9000e-004	3.0404
Total	**0.0132**	**3.9200e-003**	**0.0404**	**3.0000e-005**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**4.3000e-004**	**4.0000e-005**	**4.7000e-004**		**2.8709**	**2.8709**	**8.8000e-004**	**4.9000e-004**	**3.0404**

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0297	8.8300e-003	0.0909	6.0000e-005	3.6000e-003	1.0000e-004	3.6900e-003	9.8000e-004	9.0000e-005	1.0700e-003		6.4596	6.4596	1.9900e-003	1.1100e-003	6.8408
Total	**0.0297**	**8.8300e-003**	**0.0909**	**6.0000e-005**	**3.6000e-003**	**1.0000e-004**	**3.6900e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**		**6.4596**	**6.4596**	**1.9900e-003**	**1.1100e-003**	**6.8408**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0297	8.8300e-003	0.0909	6.0000e-005	3.6000e-003	1.0000e-004	3.6900e-003	9.8000e-004	9.0000e-005	1.0700e-003		6.4596	6.4596	1.9900e-003	1.1100e-003	6.8408
Total	**0.0297**	**8.8300e-003**	**0.0909**	**6.0000e-005**	**3.6000e-003**	**1.0000e-004**	**3.6900e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**		**6.4596**	**6.4596**	**1.9900e-003**	**1.1100e-003**	**6.8408**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	9.8000e-004	0.0101	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.7177	0.7177	2.2000e-004	1.2000e-004	0.7601
Total	**3.3000e-003**	**9.8000e-004**	**0.0101**	**1.0000e-005**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**		**0.7177**	**0.7177**	**2.2000e-004**	**1.2000e-004**	**0.7601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	9.8000e-004	0.0101	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.7177	0.7177	2.2000e-004	1.2000e-004	0.7601
Total	**3.3000e-003**	**9.8000e-004**	**0.0101**	**1.0000e-005**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**		**0.7177**	**0.7177**	**2.2000e-004**	**1.2000e-004**	**0.7601**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Unmitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Frontage Construction LST

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.12	1000sqft	0.05	2,125.00	0
Parking Lot	1.84	1000sqft	0.04	1,845.00	0
City Park	0.47	Acre	0.47	20,343.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The construction vehicle trips are reduced to 0.25 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Operational trips are reduced to zero because no operational trips are associated with the frontage construction.

Consumer Products -

Area Coating -

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - SCAQMD dust control measure.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	2,120.00	2,125.00
tblLandUse	LandUseSquareFeet	1,840.00	1,845.00
tblLandUse	LandUseSquareFeet	20,473.20	20,343.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	VendorTripLength	7.90	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblTripsAndVMT	WorkerTripLength	19.80	0.25
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9437	10.1829	7.1206	0.0141	5.3135	0.4201	5.7337	2.5690	0.3865	2.9555	0.0000	1,367.4763	1,367.4763	0.4424	1.1500e-003	1,378.6884
Maximum	**0.9437**	**10.1829**	**7.1206**	**0.0141**	**5.3135**	**0.4201**	**5.7337**	**2.5690**	**0.3865**	**2.9555**	**0.0000**	**1,367.4763**	**1,367.4763**	**0.4424**	**1.1500e-003**	**1,378.6884**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.9437	10.1829	7.1206	0.0141	2.0733	0.4201	2.4934	1.0022	0.3865	1.3887	0.0000	1,367.4763	1,367.4763	0.4424	1.1500e-003	1,378.6884
Maximum	**0.9437**	**10.1829**	**7.1206**	**0.0141**	**2.0733**	**0.4201**	**2.4934**	**1.0022**	**0.3865**	**1.3887**	**0.0000**	**1,367.4763**	**1,367.4763**	**0.4424**	**1.1500e-003**	**1,378.6884**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.98**	**0.00**	**56.51**	**60.99**	**0.00**	**53.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/27/2023	11/28/2023	5	2	
2	Paving	Paving	11/29/2023	12/5/2023	5	5	
3	Architectural Coating	Architectural Coating	12/6/2023	12/12/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 238 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	0.25	0.25	0.25	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**5.3119**	**0.4201**	**5.7320**	**2.5686**	**0.3865**	**2.9550**		**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0102	4.0800e-003	0.0443	3.0000e-005	1.6000e-003	4.0000e-005	1.6400e-003	4.3000e-004	4.0000e-005	4.7000e-004		2.7049	2.7049	1.0200e-003	5.1000e-004	2.8822
Total	**0.0102**	**4.0800e-003**	**0.0443**	**3.0000e-005**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**4.3000e-004**	**4.0000e-005**	**4.7000e-004**		**2.7049**	**2.7049**	**1.0200e-003**	**5.1000e-004**	**2.8822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0717	0.0000	2.0717	1.0017	0.0000	1.0017			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.7713	1,364.7713	0.4414		1,375.8062
Total	**0.9335**	**10.1789**	**5.5516**	**0.0141**	**2.0717**	**0.4201**	**2.4918**	**1.0017**	**0.3865**	**1.3882**	**0.0000**	**1,364.7713**	**1,364.7713**	**0.4414**		**1,375.8062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0102	4.0800e-003	0.0443	3.0000e-005	1.6000e-003	4.0000e-005	1.6400e-003	4.3000e-004	4.0000e-005	4.7000e-004		2.7049	2.7049	1.0200e-003	5.1000e-004	2.8822
Total	**0.0102**	**4.0800e-003**	**0.0443**	**3.0000e-005**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**4.3000e-004**	**4.0000e-005**	**4.7000e-004**		**2.7049**	**2.7049**	**1.0200e-003**	**5.1000e-004**	**2.8822**

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0229	9.1800e-003	0.0997	6.0000e-005	3.6000e-003	1.0000e-004	3.6900e-003	9.8000e-004	9.0000e-005	1.0700e-003		6.0861	6.0861	2.3000e-003	1.1500e-003	6.4849
Total	**0.0229**	**9.1800e-003**	**0.0997**	**6.0000e-005**	**3.6000e-003**	**1.0000e-004**	**3.6900e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**		**6.0861**	**6.0861**	**2.3000e-003**	**1.1500e-003**	**6.4849**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6321**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0229	9.1800e-003	0.0997	6.0000e-005	3.6000e-003	1.0000e-004	3.6900e-003	9.8000e-004	9.0000e-005	1.0700e-003		6.0861	6.0861	2.3000e-003	1.1500e-003	6.4849
Total	**0.0229**	**9.1800e-003**	**0.0997**	**6.0000e-005**	**3.6000e-003**	**1.0000e-004**	**3.6900e-003**	**9.8000e-004**	**9.0000e-005**	**1.0700e-003**		**6.0861**	**6.0861**	**2.3000e-003**	**1.1500e-003**	**6.4849**

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	1.0200e-003	0.0111	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.6762	0.6762	2.6000e-004	1.3000e-004	0.7205
Total	**2.5400e-003**	**1.0200e-003**	**0.0111**	**1.0000e-005**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**		**0.6762**	**0.6762**	**2.6000e-004**	**1.3000e-004**	**0.7205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.2234					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.4151**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	1.0200e-003	0.0111	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.6762	0.6762	2.6000e-004	1.3000e-004	0.7205
Total	**2.5400e-003**	**1.0200e-003**	**0.0111**	**1.0000e-005**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**		**0.6762**	**0.6762**	**2.6000e-004**	**1.3000e-004**	**0.7205**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Unmitigated	2.8200e-003	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0300e-003
Total	**2.8200e-003**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Frontage Construction LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S1 LST

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The construction vehicle trips are reduced to 0.6 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - The vehicle trips are reduced to 0.7 mile to represent localized emissions.

Consumer Products -

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	398,639.00	199,320.00
tblArchitecturalCoating	ConstArea_Parking	15,002.00	66,440.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00
tblLandUse	LandUseSquareFeet	249,960.00	249,958.00
tblLandUse	LotAcreage	0.36	0.18
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	18.70
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	18.70

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	18.70
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.9494	60.9545	51.9961	0.1114	24.8449	2.4326	27.2775	6.0391	2.2487	8.2877	0.0000	10,866.4805	10,866.4805	3.0177	0.1735	10,993.6233
2024	71.4902	24.4862	33.3201	0.0542	0.1971	1.0865	1.2674	0.0542	1.0124	1.0622	0.0000	5,231.4325	5,231.4325	1.3519	0.0672	5,284.6075
Maximum	**71.4902**	**60.9545**	**51.9961**	**0.1114**	**24.8449**	**2.4326**	**27.2775**	**6.0391**	**2.2487**	**8.2877**	**0.0000**	**10,866.4805**	**10,866.4805**	**3.0177**	**0.1735**	**10,993.6233**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.9494	60.9545	51.9961	0.1114	9.7728	2.4326	12.2055	2.3783	2.2487	4.6269	0.0000	10,866.4805	10,866.4805	3.0177	0.1735	10,993.6233
2024	71.4902	24.4862	33.3201	0.0542	0.1971	1.0865	1.2674	0.0542	1.0124	1.0622	0.0000	5,231.4325	5,231.4325	1.3519	0.0672	5,284.6075
Maximum	**71.4902**	**60.9545**	**51.9961**	**0.1114**	**9.7728**	**2.4326**	**12.2055**	**2.3783**	**2.2487**	**4.6269**	**0.0000**	**10,866.4805**	**10,866.4805**	**3.0177**	**0.1735**	**10,993.6233**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.19**	**0.00**	**52.80**	**60.08**	**0.00**	**39.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	0.5846	2.6410	3.6571	7.0400e-003	0.2570	7.4100e-003	0.2644	0.0698	7.0300e-003	0.0768		738.6303	738.6303	0.0413	0.1055	771.0906
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.7100**	**2.9513**	**3.9570**	**8.2200e-003**	**0.2570**	**0.0273**	**0.2844**	**0.0698**	**0.0269**	**0.0967**		**947.4799**	**947.4799**	**0.0490**	**0.1088**	**981.1132**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
Mobile	0.5846	2.6410	3.6571	7.0400e-003	0.2570	7.4100e-003	0.2644	0.0698	7.0300e-003	0.0768		738.6303	738.6303	0.0413	0.1055	771.0906
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.7100**	**2.9513**	**3.9570**	**8.2200e-003**	**0.2570**	**0.0273**	**0.2844**	**0.0698**	**0.0269**	**0.0967**		**947.4799**	**947.4799**	**0.0490**	**0.1088**	**981.1132**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 199,320; Non-Residential Outdoor: 132,880; Striped Parking Area: 66,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	98.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0957	1.5781	1.3103	3.2700e-003	0.0385	3.3200e-003	0.0418	0.0107	3.1800e-003	0.0139		347.6523	347.6523	6.4500e-003	0.0547	364.1232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0255	8.0000e-003	0.0872	9.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.8631	8.8631	1.7000e-003	9.9000e-004	9.2006
Total	**0.1211**	**1.5861**	**1.3975**	**3.3600e-003**	**0.0455**	**3.4200e-003**	**0.0489**	**0.0126**	**3.2700e-003**	**0.0158**		**356.5155**	**356.5155**	**8.1500e-003**	**0.0557**	**373.3238**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0957	1.5781	1.3103	3.2700e-003	0.0385	3.3200e-003	0.0418	0.0107	3.1800e-003	0.0139		347.6523	347.6523	6.4500e-003	0.0547	364.1232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0255	8.0000e-003	0.0872	9.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.8631	8.8631	1.7000e-003	9.9000e-004	9.2006
Total	**0.1211**	**1.5861**	**1.3975**	**3.3600e-003**	**0.0455**	**3.4200e-003**	**0.0489**	**0.0126**	**3.2700e-003**	**0.0158**		**356.5155**	**356.5155**	**8.1500e-003**	**0.0557**	**373.3238**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2035	3.3577	2.7878	6.9500e-003	0.0819	7.0700e-003	0.0889	0.0227	6.7600e-003	0.0295		739.6858	739.6858	0.0137	0.1165	774.7302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0339	0.0107	0.1163	1.2000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		11.8175	11.8175	2.2700e-003	1.3200e-003	12.2674
Total	**0.2375**	**3.3684**	**2.9041**	**7.0700e-003**	**0.0912**	**7.2000e-003**	**0.0984**	**0.0252**	**6.8800e-003**	**0.0321**		**751.5033**	**751.5033**	**0.0160**	**0.1178**	**786.9977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2035	3.3577	2.7878	6.9500e-003	0.0819	7.0700e-003	0.0889	0.0227	6.7600e-003	0.0295		739.6858	739.6858	0.0137	0.1165	774.7302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0339	0.0107	0.1163	1.2000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		11.8175	11.8175	2.2700e-003	1.3200e-003	12.2674
Total	**0.2375**	**3.3684**	**2.9041**	**7.0700e-003**	**0.0912**	**7.2000e-003**	**0.0984**	**0.0252**	**6.8800e-003**	**0.0321**		**751.5033**	**751.5033**	**0.0160**	**0.1178**	**786.9977**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0778	1.3913	1.0573	3.0300e-003	0.0569	3.0700e-003	0.0600	0.0166	2.9300e-003	0.0196		321.0519	321.0519	5.8100e-003	0.0492	335.8528
Worker	0.4259	0.1338	1.4591	1.4700e-003	0.1169	1.6500e-003	0.1185	0.0313	1.5200e-003	0.0328		148.3094	148.3094	0.0284	0.0166	153.9563
Total	**0.5037**	**1.5251**	**2.5164**	**4.5000e-003**	**0.1738**	**4.7200e-003**	**0.1786**	**0.0480**	**4.4500e-003**	**0.0524**		**469.3612**	**469.3612**	**0.0343**	**0.0657**	**489.8091**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0778	1.3913	1.0573	3.0300e-003	0.0569	3.0700e-003	0.0600	0.0166	2.9300e-003	0.0196		321.0519	321.0519	5.8100e-003	0.0492	335.8528
Worker	0.4259	0.1338	1.4591	1.4700e-003	0.1169	1.6500e-003	0.1185	0.0313	1.5200e-003	0.0328		148.3094	148.3094	0.0284	0.0166	153.9563
Total	**0.5037**	**1.5251**	**2.5164**	**4.5000e-003**	**0.1738**	**4.7200e-003**	**0.1786**	**0.0480**	**4.4500e-003**	**0.0524**		**469.3612**	**469.3612**	**0.0343**	**0.0657**	**489.8091**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0771	1.3875	1.0494	2.9800e-003	0.0569	3.0400e-003	0.0600	0.0166	2.9100e-003	0.0196		316.0451	316.0451	5.8500e-003	0.0484	330.6096
Worker	0.3937	0.1231	1.3948	1.4200e-003	0.1169	1.5700e-003	0.1185	0.0313	1.4500e-003	0.0328		143.5619	143.5619	0.0262	0.0157	148.8957
Total	**0.4708**	**1.5105**	**2.4442**	**4.4000e-003**	**0.1738**	**4.6100e-003**	**0.1784**	**0.0480**	**4.3600e-003**	**0.0523**		**459.6070**	**459.6070**	**0.0320**	**0.0641**	**479.5053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0771	1.3875	1.0494	2.9800e-003	0.0569	3.0400e-003	0.0600	0.0166	2.9100e-003	0.0196		316.0451	316.0451	5.8500e-003	0.0484	330.6096
Worker	0.3937	0.1231	1.3948	1.4200e-003	0.1169	1.5700e-003	0.1185	0.0313	1.4500e-003	0.0328		143.5619	143.5619	0.0262	0.0157	148.8957
Total	**0.4708**	**1.5105**	**2.4442**	**4.4000e-003**	**0.1738**	**4.6100e-003**	**0.1784**	**0.0480**	**4.3600e-003**	**0.0523**		**459.6070**	**459.6070**	**0.0320**	**0.0641**	**479.5053**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	7.3500e-003	0.0834	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.5794	8.5794	1.5600e-003	9.4000e-004	8.8982
Total	**0.0235**	**7.3500e-003**	**0.0834**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**8.5794**	**8.5794**	**1.5600e-003**	**9.4000e-004**	**8.8982**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	7.3500e-003	0.0834	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.5794	8.5794	1.5600e-003	9.4000e-004	8.8982
Total	**0.0235**	**7.3500e-003**	**0.0834**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**8.5794**	**8.5794**	**1.5600e-003**	**9.4000e-004**	**8.8982**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0784	0.0245	0.2779	2.8000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		28.5980	28.5980	5.2100e-003	3.1300e-003	29.6605
Total	**0.0784**	**0.0245**	**0.2779**	**2.8000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**28.5980**	**28.5980**	**5.2100e-003**	**3.1300e-003**	**29.6605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0784	0.0245	0.2779	2.8000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		28.5980	28.5980	5.2100e-003	3.1300e-003	29.6605
Total	**0.0784**	**0.0245**	**0.2779**	**2.8000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**28.5980**	**28.5980**	**5.2100e-003**	**3.1300e-003**	**29.6605**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5846	2.6410	3.6571	7.0400e-003	0.2570	7.4100e-003	0.2644	0.0698	7.0300e-003	0.0768		738.6303	738.6303	0.0413	0.1055	771.0906

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.5846	2.6410	3.6571	7.0400e-003	0.2570	7.4100e-003	0.2644	0.0698	7.0300e-003	0.0768		738.6303	738.6303	0.0413	0.1055	771.0906

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	75,283	75,283
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	40,761	40,761
Total	455.43	455.43	455.43	116,045	116,045

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	0.70	0.70	0.70	33.00	48.00	19.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.70	0.70	0.70	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
NaturalGas Unmitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	148.477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1376.48	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.148477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.37648	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S1 LST

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.80	1000sqft	0.18	15,800.00	0
Unrefrigerated Warehouse-No Rail	249.96	1000sqft	5.74	249,958.00	0
Parking Lot	5.74	Acre	5.74	250,034.40	0
City Park	1.94	Acre	1.94	84,506.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The construction vehicle trips are reduced to 0.6 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - The vehicle trips are reduced to 0.7 mile to represent localized emissions.

Consumer Products -

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	398,639.00	199,320.00
tblArchitecturalCoating	ConstArea_Parking	15,002.00	66,440.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00
tblLandUse	LandUseSquareFeet	249,960.00	249,958.00
tblLandUse	LotAcreage	0.36	0.18
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	18.70
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	18.70

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	18.70
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.8974	61.3693	52.1356	0.1115	24.8449	2.4330	27.2779	6.0391	2.2490	8.2881	0.0000	10,885.2175	10,885.2175	3.0164	0.1767	11,013.2966
2024	71.3769	24.5894	33.4486	0.0542	0.1971	1.0866	1.2674	0.0542	1.0125	1.0623	0.0000	5,224.8824	5,224.8824	1.3557	0.0685	5,278.5159
Maximum	**71.3769**	**61.3693**	**52.1356**	**0.1115**	**24.8449**	**2.4330**	**27.2779**	**6.0391**	**2.2490**	**8.2881**	**0.0000**	**10,885.2175**	**10,885.2175**	**3.0164**	**0.1767**	**11,013.2966**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.8974	61.3693	52.1356	0.1115	9.7728	2.4330	12.2059	2.3783	2.2490	4.6273	0.0000	10,885.2175	10,885.2175	3.0164	0.1767	11,013.2965
2024	71.3769	24.5894	33.4486	0.0542	0.1971	1.0866	1.2674	0.0542	1.0125	1.0623	0.0000	5,224.8824	5,224.8824	1.3557	0.0685	5,278.5159
Maximum	**71.3769**	**61.3693**	**52.1356**	**0.1115**	**9.7728**	**2.4330**	**12.2059**	**2.3783**	**2.2490**	**4.6273**	**0.0000**	**10,885.2175**	**10,885.2175**	**3.0164**	**0.1767**	**11,013.2965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.19**	**0.00**	**52.80**	**60.08**	**0.00**	**39.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	0.4819	2.8412	3.8358	7.0100e-003	0.2570	7.5900e-003	0.2646	0.0698	7.1900e-003	0.0769		735.5449	735.5449	0.0450	0.1075	768.7012
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.6073**	**3.1515**	**4.1357**	**8.1900e-003**	**0.2570**	**0.0275**	**0.2845**	**0.0698**	**0.0271**	**0.0969**		**944.3945**	**944.3945**	**0.0528**	**0.1108**	**978.7238**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Energy	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
Mobile	0.4819	2.8412	3.8358	7.0100e-003	0.2570	7.5900e-003	0.2646	0.0698	7.1900e-003	0.0769		735.5449	735.5449	0.0450	0.1075	768.7012
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.6073**	**3.1515**	**4.1357**	**8.1900e-003**	**0.2570**	**0.0275**	**0.2845**	**0.0698**	**0.0271**	**0.0969**		**944.3945**	**944.3945**	**0.0528**	**0.1108**	**978.7238**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 199,320; Non-Residential Outdoor: 132,880; Striped Parking Area: 66,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	98.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0832	1.7105	1.3514	3.3300e-003	0.0385	3.4400e-003	0.0419	0.0107	3.2900e-003	0.0140		354.1226	354.1226	5.8500e-003	0.0558	370.8817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	8.3200e-003	0.0919	8.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.2203	8.2203	1.9500e-003	1.0200e-003	8.5727
Total	**0.1031**	**1.7188**	**1.4433**	**3.4100e-003**	**0.0455**	**3.5400e-003**	**0.0490**	**0.0126**	**3.3800e-003**	**0.0159**		**362.3429**	**362.3429**	**7.8000e-003**	**0.0568**	**379.4544**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0832	1.7105	1.3514	3.3300e-003	0.0385	3.4400e-003	0.0419	0.0107	3.2900e-003	0.0140		354.1226	354.1226	5.8500e-003	0.0558	370.8817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	8.3200e-003	0.0919	8.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.2203	8.2203	1.9500e-003	1.0200e-003	8.5727
Total	**0.1031**	**1.7188**	**1.4433**	**3.4100e-003**	**0.0455**	**3.5400e-003**	**0.0490**	**0.0126**	**3.3800e-003**	**0.0159**		**362.3429**	**362.3429**	**7.8000e-003**	**0.0568**	**379.4544**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1770	3.6394	2.8753	7.0800e-003	0.0819	7.3200e-003	0.0892	0.0227	7.0000e-003	0.0297		753.4524	753.4524	0.0124	0.1186	789.1101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0111	0.1225	1.1000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		10.9604	10.9604	2.6000e-003	1.3600e-003	11.4302
Total	**0.2035**	**3.6505**	**2.9978**	**7.1900e-003**	**0.0912**	**7.4500e-003**	**0.0986**	**0.0252**	**7.1200e-003**	**0.0323**		**764.4128**	**764.4128**	**0.0150**	**0.1200**	**800.5403**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1770	3.6394	2.8753	7.0800e-003	0.0819	7.3200e-003	0.0892	0.0227	7.0000e-003	0.0297		753.4524	753.4524	0.0124	0.1186	789.1101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0111	0.1225	1.1000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		10.9604	10.9604	2.6000e-003	1.3600e-003	11.4302
Total	**0.2035**	**3.6505**	**2.9978**	**7.1900e-003**	**0.0912**	**7.4500e-003**	**0.0986**	**0.0252**	**7.1200e-003**	**0.0323**		**764.4128**	**764.4128**	**0.0150**	**0.1200**	**800.5403**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0691	1.4892	1.1045	3.0700e-003	0.0569	3.1700e-003	0.0601	0.0166	3.0300e-003	0.0197		325.5628	325.5628	5.4700e-003	0.0499	340.5773
Worker	0.3323	0.1392	1.5373	1.3600e-003	0.1169	1.6500e-003	0.1185	0.0313	1.5200e-003	0.0328		137.5531	137.5531	0.0327	0.0170	143.4494
Total	**0.4014**	**1.6284**	**2.6418**	**4.4300e-003**	**0.1738**	**4.8200e-003**	**0.1787**	**0.0480**	**4.5500e-003**	**0.0525**		**463.1159**	**463.1159**	**0.0382**	**0.0670**	**484.0267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0691	1.4892	1.1045	3.0700e-003	0.0569	3.1700e-003	0.0601	0.0166	3.0300e-003	0.0197		325.5628	325.5628	5.4700e-003	0.0499	340.5773
Worker	0.3323	0.1392	1.5373	1.3600e-003	0.1169	1.6500e-003	0.1185	0.0313	1.5200e-003	0.0328		137.5531	137.5531	0.0327	0.0170	143.4494
Total	**0.4014**	**1.6284**	**2.6418**	**4.4300e-003**	**0.1738**	**4.8200e-003**	**0.1787**	**0.0480**	**4.5500e-003**	**0.0525**		**463.1159**	**463.1159**	**0.0382**	**0.0670**	**484.0267**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0685	1.4854	1.0960	3.0200e-003	0.0569	3.1400e-003	0.0601	0.0166	3.0000e-003	0.0196		320.5169	320.5169	5.5000e-003	0.0491	335.2928
Worker	0.3065	0.1280	1.4720	1.3200e-003	0.1169	1.5700e-003	0.1185	0.0313	1.4500e-003	0.0328		133.1615	133.1615	0.0301	0.0162	138.7286
Total	**0.3749**	**1.6134**	**2.5680**	**4.3400e-003**	**0.1738**	**4.7100e-003**	**0.1785**	**0.0480**	**4.4500e-003**	**0.0524**		**453.6784**	**453.6784**	**0.0356**	**0.0653**	**474.0214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0685	1.4854	1.0960	3.0200e-003	0.0569	3.1400e-003	0.0601	0.0166	3.0000e-003	0.0196		320.5169	320.5169	5.5000e-003	0.0491	335.2928
Worker	0.3065	0.1280	1.4720	1.3200e-003	0.1169	1.5700e-003	0.1185	0.0313	1.4500e-003	0.0328		133.1615	133.1615	0.0301	0.0162	138.7286
Total	**0.3749**	**1.6134**	**2.5680**	**4.3400e-003**	**0.1738**	**4.7100e-003**	**0.1785**	**0.0480**	**4.4500e-003**	**0.0524**		**453.6784**	**453.6784**	**0.0356**	**0.0653**	**474.0214**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0183	7.6500e-003	0.0880	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		7.9579	7.9579	1.8000e-003	9.7000e-004	8.2906
Total	**0.0183**	**7.6500e-003**	**0.0880**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**7.9579**	**7.9579**	**1.8000e-003**	**9.7000e-004**	**8.2906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7401**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0183	7.6500e-003	0.0880	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		7.9579	7.9579	1.8000e-003	9.7000e-004	8.2906
Total	**0.0183**	**7.6500e-003**	**0.0880**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**7.9579**	**7.9579**	**1.8000e-003**	**9.7000e-004**	**8.2906**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0255	0.2932	2.6000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		26.5262	26.5262	5.9900e-003	3.2200e-003	27.6352
Total	**0.0611**	**0.0255**	**0.2932**	**2.6000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**26.5262**	**26.5262**	**5.9900e-003**	**3.2200e-003**	**27.6352**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.2886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**69.4694**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S1 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0255	0.2932	2.6000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		26.5262	26.5262	5.9900e-003	3.2200e-003	27.6352
Total	**0.0611**	**0.0255**	**0.2932**	**2.6000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**26.5262**	**26.5262**	**5.9900e-003**	**3.2200e-003**	**27.6352**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4819	2.8412	3.8358	7.0100e-003	0.2570	7.5900e-003	0.2646	0.0698	7.1900e-003	0.0769		735.5449	735.5449	0.0450	0.1075	768.7012

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.4819	2.8412	3.8358	7.0100e-003	0.2570	7.5900e-003	0.2646	0.0698	7.1900e-003	0.0769		735.5449	735.5449	0.0450	0.1075	768.7012

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	75,283	75,283
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	40,761	40,761
Total	455.43	455.43	455.43	116,045	116,045

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	0.70	0.70	0.70	33.00	48.00	19.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.70	0.70	0.70	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729
NaturalGas Unmitigated	0.0165	0.1495	0.1256	9.0000e-004		0.0114	0.0114		0.0114	0.0114		179.4068	179.4068	3.4400e-003	3.2900e-003	180.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	148.477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1376.48	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.148477	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003		17.4679	17.4679	3.3000e-004	3.2000e-004	17.5717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.37648	0.0148	0.1350	0.1134	8.1000e-004		0.0103	0.0103		0.0103	0.0103		161.9390	161.9390	3.1000e-003	2.9700e-003	162.9013
Total		**0.0164**	**0.1495**	**0.1256**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**179.4068**	**179.4068**	**3.4300e-003**	**3.2900e-003**	**180.4729**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	6.0515	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6940					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5700e-003	2.5000e-004	0.0279	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0598	0.0598	1.6000e-004		0.0638
Total	**6.0515**	**2.5000e-004**	**0.0279**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0598**	**0.0598**	**1.6000e-004**		**0.0638**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S2 LST

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The vehicle trips are reduced to 0.6 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - The vehicle trips are reduced to 0.7 mile to represent localized emissions.

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Please see fleet mix adjustment in Appendix.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	122,222.00	61,111.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	366,666.00	183,333.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	61,110.00	61,111.00
tblLandUse	LandUseSquareFeet	177,330.00	177,332.00
tblLandUse	LandUseSquareFeet	104,544.00	104,694.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	77.00
tblVehicleTrips	ST_TR	6.42	0.46
tblVehicleTrips	ST_TR	1.74	0.61
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	77.00
tblVehicleTrips	SU_TR	5.09	0.46
tblVehicleTrips	SU_TR	1.74	0.61
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	77.00
tblVehicleTrips	WD_TR	3.93	0.46
tblVehicleTrips	WD_TR	1.74	0.61

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.9494	60.9545	51.9961	0.1114	24.8449	2.4326	27.2775	6.0391	2.2487	8.2877	0.0000	10,866.4805	10,866.4805	3.0177	0.1735	10,993.6233
2024	62.2319	24.4706	33.2927	0.0542	0.1951	1.0865	1.2653	0.0537	1.0123	1.0616	0.0000	5,226.4917	5,226.4917	1.3515	0.0665	5,279.4543
Maximum	**62.2319**	**60.9545**	**51.9961**	**0.1114**	**24.8449**	**2.4326**	**27.2775**	**6.0391**	**2.2487**	**8.2877**	**0.0000**	**10,866.4805**	**10,866.4805**	**3.0177**	**0.1735**	**10,993.6233**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.9494	60.9545	51.9961	0.1114	9.7728	2.4326	12.2055	2.3783	2.2487	4.6269	0.0000	10,866.4805	10,866.4805	3.0177	0.1735	10,993.6233
2024	62.2319	24.4706	33.2927	0.0542	0.1951	1.0865	1.2653	0.0537	1.0123	1.0616	0.0000	5,226.4917	5,226.4917	1.3515	0.0665	5,279.4543
Maximum	**62.2319**	**60.9545**	**51.9961**	**0.1114**	**9.7728**	**2.4326**	**12.2055**	**2.3783**	**2.2487**	**4.6269**	**0.0000**	**10,866.4805**	**10,866.4805**	**3.0177**	**0.1735**	**10,993.6233**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.19**	**0.00**	**52.80**	**60.08**	**0.00**	**39.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	0.7963	2.3464	4.1720	6.8500e-003	0.2874	7.3900e-003	0.2948	0.0776	6.9700e-003	0.0845		715.2906	715.2906	0.0563	0.1024	747.2212
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.4966**	**3.1391**	**4.8750**	**0.0109**	**0.2874**	**0.0640**	**0.3513**	**0.0776**	**0.0635**	**0.1411**		**1,503.0644**	**1,503.0644**	**0.0750**	**0.1163**	**1,539.6079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	0.7963	2.3464	4.1720	6.8500e-003	0.2874	7.3900e-003	0.2948	0.0776	6.9700e-003	0.0845		715.2906	715.2906	0.0563	0.1024	747.2212
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.4966**	**3.1391**	**4.8750**	**0.0109**	**0.2874**	**0.0640**	**0.3513**	**0.0776**	**0.0635**	**0.1411**		**1,503.0644**	**1,503.0644**	**0.0750**	**0.1163**	**1,539.6079**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.59

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 183,333; Non-Residential Outdoor: 61,111; Striped Parking Area: 14,610 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	97.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0957	1.5781	1.3103	3.2700e-003	0.0385	3.3200e-003	0.0418	0.0107	3.1800e-003	0.0139		347.6523	347.6523	6.4500e-003	0.0547	364.1232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0255	8.0000e-003	0.0872	9.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.8631	8.8631	1.7000e-003	9.9000e-004	9.2006
Total	**0.1211**	**1.5861**	**1.3975**	**3.3600e-003**	**0.0455**	**3.4200e-003**	**0.0489**	**0.0126**	**3.2700e-003**	**0.0158**		**356.5155**	**356.5155**	**8.1500e-003**	**0.0557**	**373.3238**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0957	1.5781	1.3103	3.2700e-003	0.0385	3.3200e-003	0.0418	0.0107	3.1800e-003	0.0139		347.6523	347.6523	6.4500e-003	0.0547	364.1232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0255	8.0000e-003	0.0872	9.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.8631	8.8631	1.7000e-003	9.9000e-004	9.2006
Total	**0.1211**	**1.5861**	**1.3975**	**3.3600e-003**	**0.0455**	**3.4200e-003**	**0.0489**	**0.0126**	**3.2700e-003**	**0.0158**		**356.5155**	**356.5155**	**8.1500e-003**	**0.0557**	**373.3238**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2035	3.3577	2.7878	6.9500e-003	0.0819	7.0700e-003	0.0889	0.0227	6.7600e-003	0.0295		739.6858	739.6858	0.0137	0.1165	774.7302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0339	0.0107	0.1163	1.2000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		11.8175	11.8175	2.2700e-003	1.3200e-003	12.2674
Total	**0.2375**	**3.3684**	**2.9041**	**7.0700e-003**	**0.0912**	**7.2000e-003**	**0.0984**	**0.0252**	**6.8800e-003**	**0.0321**		**751.5033**	**751.5033**	**0.0160**	**0.1178**	**786.9977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2035	3.3577	2.7878	6.9500e-003	0.0819	7.0700e-003	0.0889	0.0227	6.7600e-003	0.0295		739.6858	739.6858	0.0137	0.1165	774.7302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0339	0.0107	0.1163	1.2000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		11.8175	11.8175	2.2700e-003	1.3200e-003	12.2674
Total	**0.2375**	**3.3684**	**2.9041**	**7.0700e-003**	**0.0912**	**7.2000e-003**	**0.0984**	**0.0252**	**6.8800e-003**	**0.0321**		**751.5033**	**751.5033**	**0.0160**	**0.1178**	**786.9977**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0770	1.3771	1.0465	3.0000e-003	0.0564	3.0400e-003	0.0594	0.0165	2.9000e-003	0.0194		317.7758	317.7758	5.7500e-003	0.0487	332.4257
Worker	0.4208	0.1322	1.4417	1.4500e-003	0.1155	1.6300e-003	0.1171	0.0309	1.5000e-003	0.0324		146.5367	146.5367	0.0281	0.0164	152.1162
Total	**0.4978**	**1.5094**	**2.4882**	**4.4500e-003**	**0.1719**	**4.6700e-003**	**0.1765**	**0.0474**	**4.4000e-003**	**0.0518**		**464.3126**	**464.3126**	**0.0339**	**0.0651**	**484.5419**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0770	1.3771	1.0465	3.0000e-003	0.0564	3.0400e-003	0.0594	0.0165	2.9000e-003	0.0194		317.7758	317.7758	5.7500e-003	0.0487	332.4257
Worker	0.4208	0.1322	1.4417	1.4500e-003	0.1155	1.6300e-003	0.1171	0.0309	1.5000e-003	0.0324		146.5367	146.5367	0.0281	0.0164	152.1162
Total	**0.4978**	**1.5094**	**2.4882**	**4.4500e-003**	**0.1719**	**4.6700e-003**	**0.1765**	**0.0474**	**4.4000e-003**	**0.0518**		**464.3126**	**464.3126**	**0.0339**	**0.0651**	**484.5419**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0763	1.3733	1.0387	2.9500e-003	0.0564	3.0100e-003	0.0594	0.0165	2.8800e-003	0.0194		312.8201	312.8201	5.7900e-003	0.0479	327.2361
Worker	0.3890	0.1216	1.3781	1.4000e-003	0.1155	1.5500e-003	0.1171	0.0309	1.4300e-003	0.0324		141.8461	141.8461	0.0258	0.0155	147.1161
Total	**0.4653**	**1.4949**	**2.4168**	**4.3500e-003**	**0.1719**	**4.5600e-003**	**0.1764**	**0.0474**	**4.3100e-003**	**0.0517**		**454.6662**	**454.6662**	**0.0316**	**0.0634**	**474.3521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0763	1.3733	1.0387	2.9500e-003	0.0564	3.0100e-003	0.0594	0.0165	2.8800e-003	0.0194		312.8201	312.8201	5.7900e-003	0.0479	327.2361
Worker	0.3890	0.1216	1.3781	1.4000e-003	0.1155	1.5500e-003	0.1171	0.0309	1.4300e-003	0.0324		141.8461	141.8461	0.0258	0.0155	147.1161
Total	**0.4653**	**1.4949**	**2.4168**	**4.3500e-003**	**0.1719**	**4.5600e-003**	**0.1764**	**0.0474**	**4.3100e-003**	**0.0517**		**454.6662**	**454.6662**	**0.0316**	**0.0634**	**474.3521**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	7.3500e-003	0.0834	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.5794	8.5794	1.5600e-003	9.4000e-004	8.8982
Total	**0.0235**	**7.3500e-003**	**0.0834**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**8.5794**	**8.5794**	**1.5600e-003**	**9.4000e-004**	**8.8982**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	7.3500e-003	0.0834	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.5794	8.5794	1.5600e-003	9.4000e-004	8.8982
Total	**0.0235**	**7.3500e-003**	**0.0834**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**8.5794**	**8.5794**	**1.5600e-003**	**9.4000e-004**	**8.8982**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0784	0.0245	0.2779	2.8000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		28.5980	28.5980	5.2100e-003	3.1300e-003	29.6605
Total	**0.0784**	**0.0245**	**0.2779**	**2.8000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**28.5980**	**28.5980**	**5.2100e-003**	**3.1300e-003**	**29.6605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0784	0.0245	0.2779	2.8000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		28.5980	28.5980	5.2100e-003	3.1300e-003	29.6605
Total	**0.0784**	**0.0245**	**0.2779**	**2.8000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**28.5980**	**28.5980**	**5.2100e-003**	**3.1300e-003**	**29.6605**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7963	2.3464	4.1720	6.8500e-003	0.2874	7.3900e-003	0.2948	0.0776	6.9700e-003	0.0845		715.2906	715.2906	0.0563	0.1024	747.2212

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.7963	2.3464	4.1720	6.8500e-003	0.2874	7.3900e-003	0.2948	0.0776	6.9700e-003	0.0845		715.2906	715.2906	0.0563	0.1024	747.2212

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	96,907	96,907
Manufacturing	28.11	28.11	28.11	7,163	7,163
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	27,562	27,562
Total	598.28	598.28	598.28	131,631	131,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	0.70	0.70	0.70	33.00	48.00	19.00	77	19	4
Manufacturing	0.70	0.70	0.70	59.00	28.00	13.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.70	0.70	0.70	59.00	0.00	41.00	100	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
NaturalGas Unmitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	56.3836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5412.93	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	976.541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0563836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5.41293	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.976541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
	Appendix A															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Unmitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Riverside Palmyrita Avenue Project S2 LST

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Manufacturing	61.11	1000sqft	1.40	61,111.00	0
Unrefrigerated Warehouse-No Rail	177.33	1000sqft	4.07	177,332.00	0
Parking Lot	5.59	Acre	5.59	243,500.40	0
City Park	2.40	Acre	2.40	104,694.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Trips and VMT - The vehicle trips are reduced to 0.6 mile to represent localized emissions.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - The vehicle trips are reduced to 0.7 mile to represent localized emissions.

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	122,222.00	61,111.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	366,666.00	183,333.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	300.00	200.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.63
tblFleetMix	HHD	0.02	0.63
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD1	0.03	0.13
tblFleetMix	LHD2	7.1910e-003	0.00
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	LHD2	7.1910e-003	0.04
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MH	5.1890e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	OBUS	6.1100e-004	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblFleetMix	UBUS	3.0900e-004	0.00
tblGrading	MaterialExported	0.00	24,000.00

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	61,110.00	61,111.00
tblLandUse	LandUseSquareFeet	177,330.00	177,332.00
tblLandUse	LandUseSquareFeet	104,544.00	104,694.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	HaulingTripLength	20.00	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	VendorTripLength	7.90	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblTripsAndVMT	WorkerTripLength	19.80	0.60
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70
tblVehicleTrips	CC_TL	10.10	0.70

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CNW_TL	7.90	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	CW_TL	18.50	0.70
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	77.00
tblVehicleTrips	ST_TR	6.42	0.46
tblVehicleTrips	ST_TR	1.74	0.61
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	77.00
tblVehicleTrips	SU_TR	5.09	0.46
tblVehicleTrips	SU_TR	1.74	0.61
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	77.00
tblVehicleTrips	WD_TR	3.93	0.46
tblVehicleTrips	WD_TR	1.74	0.61

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.8974	61.3693	52.1356	0.1115	24.8449	2.4330	27.2779	6.0391	2.2490	8.2881	0.0000	10,885.2175	10,885.2175	3.0164	0.1767	11,013.2966
2024	62.1197	24.5727	33.4198	0.0541	0.1951	1.0866	1.2654	0.0537	1.0124	1.0617	0.0000	5,220.0202	5,220.0202	1.3553	0.0678	5,273.4365
Maximum	**62.1197**	**61.3693**	**52.1356**	**0.1115**	**24.8449**	**2.4330**	**27.2779**	**6.0391**	**2.2490**	**8.2881**	**0.0000**	**10,885.2175**	**10,885.2175**	**3.0164**	**0.1767**	**11,013.2966**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.8974	61.3693	52.1356	0.1115	9.7728	2.4330	12.2059	2.3783	2.2490	4.6273	0.0000	10,885.2175	10,885.2175	3.0164	0.1767	11,013.2965
2024	62.1197	24.5727	33.4198	0.0541	0.1951	1.0866	1.2654	0.0537	1.0124	1.0617	0.0000	5,220.0202	5,220.0202	1.3553	0.0678	5,273.4365
Maximum	**62.1197**	**61.3693**	**52.1356**	**0.1115**	**9.7728**	**2.4330**	**12.2059**	**2.3783**	**2.2490**	**4.6273**	**0.0000**	**10,885.2175**	**10,885.2175**	**3.0164**	**0.1767**	**11,013.2965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.19**	**0.00**	**52.80**	**60.08**	**0.00**	**39.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	0.6483	2.5208	4.4247	6.7700e-003	0.2874	7.5400e-003	0.2949	0.0776	7.1100e-003	0.0847		707.4704	707.4704	0.0627	0.1045	740.1858
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.3486**	**3.3135**	**5.1277**	**0.0108**	**0.2874**	**0.0641**	**0.3515**	**0.0776**	**0.0637**	**0.1412**		**1,495.2442**	**1,495.2442**	**0.0815**	**0.1184**	**1,532.5726**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Energy	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
Mobile	0.6483	2.5208	4.4247	6.7700e-003	0.2874	7.5400e-003	0.2949	0.0776	7.1100e-003	0.0847		707.4704	707.4704	0.0627	0.1045	740.1858
Stationary	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**6.3486**	**3.3135**	**5.1277**	**0.0108**	**0.2874**	**0.0641**	**0.3515**	**0.0776**	**0.0637**	**0.1412**		**1,495.2442**	**1,495.2442**	**0.0815**	**0.1184**	**1,532.5726**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/20/2023	12/15/2023	5	20	
2	Grading	Grading	11/20/2023	12/15/2023	5	20	
3	Building Construction	Building Construction	12/18/2023	9/20/2024	5	200	
4	Paving	Paving	7/29/2024	8/23/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.59

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 183,333; Non-Residential Outdoor: 61,111; Striped Parking Area: 14,610 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,410.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,000.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Building Construction	9	248.00	97.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	0.60	0.60	0.60	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3527	0.0000	15.3527	2.3245	0.0000	2.3245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**15.3527**	**0.9975**	**16.3502**	**2.3245**	**0.9280**	**3.2525**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0832	1.7105	1.3514	3.3300e-003	0.0385	3.4400e-003	0.0419	0.0107	3.2900e-003	0.0140		354.1226	354.1226	5.8500e-003	0.0558	370.8817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	8.3200e-003	0.0919	8.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.2203	8.2203	1.9500e-003	1.0200e-003	8.5727
Total	**0.1031**	**1.7188**	**1.4433**	**3.4100e-003**	**0.0455**	**3.5400e-003**	**0.0490**	**0.0126**	**3.3800e-003**	**0.0159**		**362.3429**	**362.3429**	**7.8000e-003**	**0.0568**	**379.4544**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9876	0.0000	5.9876	0.9066	0.0000	0.9066			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**5.9876**	**0.9975**	**6.9851**	**0.9066**	**0.9280**	**1.8346**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0832	1.7105	1.3514	3.3300e-003	0.0385	3.4400e-003	0.0419	0.0107	3.2900e-003	0.0140		354.1226	354.1226	5.8500e-003	0.0558	370.8817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	8.3200e-003	0.0919	8.0000e-005	6.9900e-003	1.0000e-004	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		8.2203	8.2203	1.9500e-003	1.0200e-003	8.5727
Total	**0.1031**	**1.7188**	**1.4433**	**3.4100e-003**	**0.0455**	**3.5400e-003**	**0.0490**	**0.0126**	**3.3800e-003**	**0.0159**		**362.3429**	**362.3429**	**7.8000e-003**	**0.0568**	**379.4544**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.3556	0.0000	9.3556	3.6768	0.0000	3.6768			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.3556**	**1.4245**	**10.7800**	**3.6768**	**1.3105**	**4.9873**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1770	3.6394	2.8753	7.0800e-003	0.0819	7.3200e-003	0.0892	0.0227	7.0000e-003	0.0297		753.4524	753.4524	0.0124	0.1186	789.1101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0111	0.1225	1.1000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		10.9604	10.9604	2.6000e-003	1.3600e-003	11.4302
Total	**0.2035**	**3.6505**	**2.9978**	**7.1900e-003**	**0.0912**	**7.4500e-003**	**0.0986**	**0.0252**	**7.1200e-003**	**0.0323**		**764.4128**	**764.4128**	**0.0150**	**0.1200**	**800.5403**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6487	0.0000	3.6487	1.4339	0.0000	1.4339			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.6487**	**1.4245**	**5.0732**	**1.4339**	**1.3105**	**2.7445**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1770	3.6394	2.8753	7.0800e-003	0.0819	7.3200e-003	0.0892	0.0227	7.0000e-003	0.0297		753.4524	753.4524	0.0124	0.1186	789.1101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0111	0.1225	1.1000e-004	9.3100e-003	1.3000e-004	9.4500e-003	2.4900e-003	1.2000e-004	2.6200e-003		10.9604	10.9604	2.6000e-003	1.3600e-003	11.4302
Total	**0.2035**	**3.6505**	**2.9978**	**7.1900e-003**	**0.0912**	**7.4500e-003**	**0.0986**	**0.0252**	**7.1200e-003**	**0.0323**		**764.4128**	**764.4128**	**0.0150**	**0.1200**	**800.5403**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.4740	1.0932	3.0400e-003	0.0564	3.1300e-003	0.0595	0.0165	3.0000e-003	0.0195		322.2407	322.2407	5.4100e-003	0.0494	337.1021
Worker	0.3284	0.1375	1.5189	1.3400e-003	0.1155	1.6300e-003	0.1171	0.0309	1.5000e-003	0.0324		135.9091	135.9091	0.0323	0.0168	141.7349
Total	**0.3968**	**1.6115**	**2.6121**	**4.3800e-003**	**0.1719**	**4.7600e-003**	**0.1766**	**0.0474**	**4.5000e-003**	**0.0519**		**458.1498**	**458.1498**	**0.0377**	**0.0663**	**478.8369**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.4740	1.0932	3.0400e-003	0.0564	3.1300e-003	0.0595	0.0165	3.0000e-003	0.0195		322.2407	322.2407	5.4100e-003	0.0494	337.1021
Worker	0.3284	0.1375	1.5189	1.3400e-003	0.1155	1.6300e-003	0.1171	0.0309	1.5000e-003	0.0324		135.9091	135.9091	0.0323	0.0168	141.7349
Total	**0.3968**	**1.6115**	**2.6121**	**4.3800e-003**	**0.1719**	**4.7600e-003**	**0.1766**	**0.0474**	**4.5000e-003**	**0.0519**		**458.1498**	**458.1498**	**0.0377**	**0.0663**	**478.8369**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0678	1.4703	1.0849	2.9900e-003	0.0564	3.1000e-003	0.0595	0.0165	2.9700e-003	0.0194		317.2463	317.2463	5.4500e-003	0.0486	331.8715
Worker	0.3028	0.1264	1.4544	1.3000e-003	0.1155	1.5500e-003	0.1171	0.0309	1.4300e-003	0.0324		131.5700	131.5700	0.0297	0.0160	137.0705
Total	**0.3705**	**1.5967**	**2.5393**	**4.2900e-003**	**0.1719**	**4.6500e-003**	**0.1765**	**0.0474**	**4.4000e-003**	**0.0518**		**448.8163**	**448.8163**	**0.0351**	**0.0646**	**468.9419**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0678	1.4703	1.0849	2.9900e-003	0.0564	3.1000e-003	0.0595	0.0165	2.9700e-003	0.0194		317.2463	317.2463	5.4500e-003	0.0486	331.8715
Worker	0.3028	0.1264	1.4544	1.3000e-003	0.1155	1.5500e-003	0.1171	0.0309	1.4300e-003	0.0324		131.5700	131.5700	0.0297	0.0160	137.0705
Total	**0.3705**	**1.5967**	**2.5393**	**4.2900e-003**	**0.1719**	**4.6500e-003**	**0.1765**	**0.0474**	**4.4000e-003**	**0.0518**		**448.8163**	**448.8163**	**0.0351**	**0.0646**	**468.9419**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0183	7.6500e-003	0.0880	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		7.9579	7.9579	1.8000e-003	9.7000e-004	8.2906
Total	**0.0183**	**7.6500e-003**	**0.0880**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**7.9579**	**7.9579**	**1.8000e-003**	**9.7000e-004**	**8.2906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0183	7.6500e-003	0.0880	8.0000e-005	6.9900e-003	9.0000e-005	7.0800e-003	1.8700e-003	9.0000e-005	1.9600e-003		7.9579	7.9579	1.8000e-003	9.7000e-004	8.2906
Total	**0.0183**	**7.6500e-003**	**0.0880**	**8.0000e-005**	**6.9900e-003**	**9.0000e-005**	**7.0800e-003**	**1.8700e-003**	**9.0000e-005**	**1.9600e-003**		**7.9579**	**7.9579**	**1.8000e-003**	**9.7000e-004**	**8.2906**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0255	0.2932	2.6000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		26.5262	26.5262	5.9900e-003	3.2200e-003	27.6352
Total	**0.0611**	**0.0255**	**0.2932**	**2.6000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**26.5262**	**26.5262**	**5.9900e-003**	**3.2200e-003**	**27.6352**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.0358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**60.2165**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0255	0.2932	2.6000e-004	0.0233	3.1000e-004	0.0236	6.2400e-003	2.9000e-004	6.5300e-003		26.5262	26.5262	5.9900e-003	3.2200e-003	27.6352
Total	**0.0611**	**0.0255**	**0.2932**	**2.6000e-004**	**0.0233**	**3.1000e-004**	**0.0236**	**6.2400e-003**	**2.9000e-004**	**6.5300e-003**		**26.5262**	**26.5262**	**5.9900e-003**	**3.2200e-003**	**27.6352**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6483	2.5208	4.4247	6.7700e-003	0.2874	7.5400e-003	0.2949	0.0776	7.1100e-003	0.0847		707.4704	707.4704	0.0627	0.1045	740.1858

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.6483	2.5208	4.4247	6.7700e-003	0.2874	7.5400e-003	0.2949	0.0776	7.1100e-003	0.0847		707.4704	707.4704	0.0627	0.1045	740.1858

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	96,907	96,907
Manufacturing	28.11	28.11	28.11	7,163	7,163
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	27,562	27,562
Total	598.28	598.28	598.28	131,631	131,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	18.50	10.10	7.90	33.00	48.00	19.00	66	28	6
General Office Building	0.70	0.70	0.70	33.00	48.00	19.00	77	19	4
Manufacturing	0.70	0.70	0.70	59.00	28.00	13.00	100	0	0
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.70	0.70	0.70	59.00	0.00	41.00	100	0	0

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
General Office Building	0.594000	0.062000	0.191000	0.153000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.132000	0.037000	0.206000	0.625000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419
NaturalGas Unmitigated	0.0695	0.6320	0.5308	3.7900e-003		0.0480	0.0480		0.0480	0.0480		758.3355	758.3355	0.0145	0.0139	762.8419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	56.3836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5412.93	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	976.541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0563836	6.1000e-004	5.5300e-003	4.6400e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6334	6.6334	1.3000e-004	1.2000e-004	6.6728
Manufacturing	5.41293	0.0584	0.5307	0.4458	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.8150	636.8150	0.0122	0.0117	640.5993
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.976541	0.0105	0.0957	0.0804	5.7000e-004		7.2800e-003	7.2800e-003		7.2800e-003	7.2800e-003		114.8871	114.8871	2.2000e-003	2.1100e-003	115.5699
Total		**0.0695**	**0.6320**	**0.5308**	**3.7800e-003**		**0.0480**	**0.0480**		**0.0480**	**0.0480**		**758.3355**	**758.3355**	**0.0145**	**0.0139**	**762.8419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
	Appendix A															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Unmitigated	5.5734	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6394					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3800e-003	2.3000e-004	0.0257	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0552	0.0552	1.4000e-004		0.0589
Total	**5.5734**	**2.3000e-004**	**0.0257**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0552**	**0.0552**	**1.4000e-004**		**0.0589**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Riverside Palmyrita Avenue Project S2 LST - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.14	50	250	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (175 - 300 HP)	0.0574	0.1605	0.1465	2.8000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003		29.3830	29.3830	4.1200e-003		29.4860
Total	**0.0574**	**0.1605**	**0.1465**	**2.8000e-004**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**		**29.3830**	**29.3830**	**4.1200e-003**		**29.4860**

11.0 Vegetation

DEMOLITION CALCULATIONS

Parameters[1]			
1	building st	10	cf building volume
1	cf building volume	0.25	cf waste volume
1	cf	0.037	cy
1	cy waste volume	0.5	ton waste weight
1	**sf**	**0.04625**	**ton waste material**

Description	square feet[2]	height/ depth (ft)[3]	density (lbs/cf)[4]	Demolition Weight (pounds)	Demolition Weight (tons)
Buildings	99,165	-	-	-	4,586.38
Pavement	258,000	0.5	150	19,350,000	9,675.00
					14,261

Notes:
cy = cubic yard
gsf = gross square feet
sf = square feet
cf = cubic feet

[1] Source: California Air Pollution Control Officers Association (CAPCOA). 2017. Appendix A Calculation Details for CalEEMod. October.

[2] Source: information provided by project applicant

[3] Source: DC Construction Services. 2017. How Thick Is Parking Lot Asphalt? Website: https://dccpaving.com/how-thick-is-parking-lot-asphalt/

[4] Source: SFGate. 2019. How to Calculate Asphalt Weight Per Yard. Website: https://homeguides.sfgate.com/calculate-asphalt-weight-per-yard-81825.html

Operational Vehicle Trip Generation Rate Adjustments Scenario 1

Trip-Generating CalEEMod Land Use	Size Metric	Size	Default Trip Generation Rates[1]			Daily Trips[2]	Adjusted Trip Generation Rates[2] (Based on proportional change to weekday trips)		
			Weekday	Saturday	Sunday		Weekday	Saturday	Sunday
Unrefrigerated Warehouse-No Rail	1000sqft	249.958	1.74	1.74	1.74	160	0.64	0.64	0.64
General Office Building	1000sqft	15.8	9.74	9.74	9.74	296	18.73	18.7	18.7

Operational Vehicle Trip Generation Rate Adjustments Scenario 2

Trip-Generating CalEEMod Land Use	Size Metric	Size	Default Trip Generation Rates[1]				Adjusted Trip Generation Rates[2]		
			Weekday	Saturday	Sunday		Weekday	Saturday	Sunday
Unrefrigerated Warehouse-No Rail	1000sqft	177.332	1.74	1.74	1.74	108	0.61	0.61	0.61
Manufacturing	1000sqft	61.111	3.93	3.93	3.93	28	0.46	0.46	0.46
General Office Building	1000sqft	6	9.74	9.74	9.74	462	77.00	77.00	77.00

Notes/Sources:

[1] California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod), Version 2020.4.0.

[2] Urban Crossroad. 2022. Iowa & Palmyrita Warehouses Vehicle Miles Traveled (VMT) Analysis. August.

Project Fleet Mix Adjustments (2024)

CalEEMod Riverside County 2024 Operational Year Default Fleet Mix														**Total**
	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0.537845	0.056225	0.173186	0.1384	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189	1.000
					2-Axle	2-Axle	3-Axle	4-Axle						
Trucks Only*	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0	0	0	0	0.0259	0.0072	0.0114	0.0188	0	0	0	0	0	0.063
Truck Trips based on Traffic Study						27		33	100					160
Adjusted Truck Fleet Mix 2024 for Warehouse Land Use in CalEEMod	0	0	0	0	0.132	0.037	0.206	0.625	0	0	0	0	0	1.000
Passenger Cars	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
Default Light Duty Fleet Mix	0.538	0.056	0.173	0.138	0	0	0	0	0	0	0	0	0	0.906
Difference to be allocated	0.094													
Adjusted Passenger Cars Fleet Mix 2024 for Office Land Use in CalEEMod														
	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0.594	0.062	0.191	0.153	0	0	0	0	0	0	0	0	0	1.000

Scenario 1	Cars	Trucks	Total Daily Trips
Daily Trips	296	160	**456**

Scenario 2	Cars	Trucks	Total Daily Trips
Daily Trips	462	136	**598**

Note: Scenario 1 and Scenario 2 have different number of trips, but they have the same fleet mix ratio for Truck and Passenger Car catogroies.

Appendix B:
Health Risk Assessments

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Appendix B: Health Risk Assessments

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Assumptions and Emission Calculations 1

HARP2 Output and Health Risk Calculations 3

AERMOD Output—All Sources (Unit Emissions) 66

Palmyrita Avenue Warehouse Project **DPM**

Emission Assumptions

Emission Factors

1) Truck Emissions

(1) EMFAC2017 for running emissions

(a) Calculations for	Riverside County portion of South Coast Air Basin
(b) Truck Mix	Fleet mix consistent with the buildout year CalEEMod run and based on TIA
(c) Truck Idle	Two instances per trip
(d) Onsite Vehicle Travel Speed	5 mph for trucks
(e) Offsite Vehicle Travel Speed	5-25 mph aggregated for trucks

Traffic Allocation

1) Traffic distribution based on site layout identified in the site plan
2) Project-specific trip generation
3) Onsite travel emissions generated from diesel vehicles
4) Onsite idling emissions generated only by trucks

Emission Source Configuration

1) Project onsite truck traffic represented by a line source
2) Project onsite truck idling represented as line sources (series of point sources)
3) Offsite vehicles represented by a line source

Onsite Vehicle Travel Segments

Segment	**Source ID**	**Segment Travel Distance (m)**	
On-site Truck Route 1	SLINE1	343.7	On-site Truck Travel Route 1
On-site Truck Route 2	SLINE2	577.0	On-site Truck Travel Route 2
Onsite Truck Idling			
On-site Idling – Location 1	SLINE3	91.9	Loading Docks Building 1
On-site Idling – Location 2	SLINE4	77.4	Loading Docks Building 2
On-site Idling – Location 3	VOL1	14.5	Trailer Parking

Offsite Vehicle Travel Segments

Segment		**Segment Travel Distance (m)**	
Off-site Truck Travel	SLINE5	959.5	Off-site Truck Travel

Other Input Parameters

Facility Operations (hr/day):	24

Palmyrita Avenue Warehouse Project

Vehicle Fleet Mix

Total Daily Truck Trips		Trucks	Total Daily Truck Trips
(Trips/day)	Daily Trips	160	160
160	Fleet Mix	100.0%	100.0%
—			
160			

Vehicle Fleet

	Trucks Project Vehicle Mix	**EMFAC % Diesel**	**Total Number of Daily Trips**	**Number of Daily Diesel Trips**	**Number of Daily Non-Trips**	**Total Number of Daily Trips**	**% Diesel Trips**	**% Non-Diesel Trips**	**Total Trips**
LHDT1 (2-axle truck)	13.2%	45.9%	21	9.7	11	21	6.06%	7.14%	
LHDT2 (2-axle truck)	3.7%	73.7%	6	4.4	2	6	2.73%	0.97%	
MHDT (3 axle truck)	20.6%	100.0%	33	33.0	0	33	20.60%	0.00%	
HHDT (4+ axle truck)	62.5%	100.0%	100	100.0	0	100	62.50%	0.00%	
Truck Subtotal	100.0%		160	147.0	13	160	91.88%	8.12%	100.00%

Truck fleet mix consistent with the project CalEEMod runs used in the Air Quality Analysis and is consistent with the project-specific traffic information.
Assumed 100% diesel for MHDT and HHDT; % Diesel taken from EMFAC2021 for LHDT1, and LHDT2.

Palmyrita Avenue Warehouse Project

Trip Distribution

Vehicle Allocation - Number of Daily Diesel Trips

Allocation of Building Trips

Percent Allocation - On-site Travel

50% On-site Travel – Route 1 (DSL trucks)
50% On-site Travel – Route 2 (DSL trucks)
100% Total Diesel Truck Trips

Segment - On-site Travel	Source ID	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	SBUS	MH	Total
On-site Truck Route 1	SLINE1	0.0	0.0	0.0	0.0	4.8	2.2	16.5	50.0	0.0	0.0	0.0	0.0	73.5
On-site Truck Route 2	SLINE2	0.0	0.0	0.0	0.0	4.8	2.2	16.5	50.0	0.0	0.0	0.0	0.0	73.5
Total Diesel Trucks	—	0	0	0	0	10	4	33	100	0	0	0	0	147

Percent Allocation of Trips - On-site Diesel Truck Idling

50.0% On-site Idling – Location 1 Loading Docks Building 1
50.0% On-site Idling – Location 2 Loading Docks Building 2
100.0% On-site Idling – Location 3 Trailer Parking
200% Total Diesel Truck Trips (two occurrences per trip)

Segment - On-site Truck Idle	Source ID	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	SBUS	MH	Total
On-site Idling – Location 1	SLINE3	0.0	0.0	0.0	0.0	4.8	2.2	16.5	50.0	0.0	0.0	0.0	0.0	73.5
On-site Idling – Location 2	SLINE4	0.0	0.0	0.0	0.0	4.8	2.2	16.5	50.0	0.0	0.0	0.0	0.0	73.5
On-site Idling – Location 3	VOL1	0.0	0.0	0.0	0.0	9.7	4.4	33.0	100.0	0.0	0.0	0.0	0.0	147.0
Total Idling (Diesel Trucks Idling)	—	0	0	0	0	19	9	66	200	0	0	0	0	294

Palmyrita Avenue Warehouse Project

Diesel Vehicle Emissions

Processes Modeled

Diesel vehicle exhaust
Diesel vehicle idling

Facility Operations

24 hrs/day, 52 weeks/year

On-site Travel Links Modeled

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per Daily (in and out)	Link Length (m)	Link Length (mi)	Ave Emissions Over Link (g/day)	Ave Emissions (lbs/day)	Average Emissions (g/sec)	Emissions for all Vehicles (g/sec)
SLINE1	**LHDT1**	5	0.105	4.8	343.7	0.21	1.090E-01	2.40E-04	1.262E-06	
	LHDT2	5	0.094	2.2	343.7	0.21	4.391E-02	9.67E-05	5.083E-07	
	MHDT	5	0.041	16.5	343.7	0.21	1.441E-01	3.17E-04	1.667E-06	
	HHDT	5	0.013	50.0	343.7	0.21	1.395E-01	3.07E-04	1.615E-06	**5.05E-06**
SLINE2	**LHDT1**	5	0.105	4.8	577	0.36	1.83E-01	4.03E-04	2.12E-06	
	LHDT2	5	0.094	2.2	577	0.36	7.37E-02	1.62E-04	8.53E-07	
	MHDT	5	0.041	16.5	577	0.36	2.42E-01	5.33E-04	2.80E-06	
	HHDT	5	0.013	50.0	577	0.36	2.34E-01	5.16E-04	2.71E-06	**8.48E-06**

Palmyrita Avenue Warehouse Project

Diesel Truck Idling Emissions

Onsite Vehicle Travel Segments	Truck Type	DPM Emission Factor (grams/trip)	Number Idling Vehicle Trips/day	Emissions (g/day)	Emissions (lb/day)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
SLINE3	**LHDT1**	0.027	4.8	1.32E-01	2.92E-04	1.53E-06	
	LHDT2	0.027	2.2	5.96E-02	1.31E-04	6.89E-07	
	MHDT	0.024	16.5	3.98E-01	8.77E-04	4.61E-06	
	HHDT	0.030	50.0	1.49E+00	3.29E-03	1.73E-05	**2.4116E-05**
SLINE4	**LHDT1**	0.027	4.8	1.32E-01	2.92E-04	1.53E-06	
	LHDT2	0.027	2.2	5.96E-02	1.31E-04	6.89E-07	
	MHDT	0.024	16.5	3.98E-01	8.77E-04	4.61E-06	
	HHDT	0.030	50.0	1.49E+00	3.29E-03	1.73E-05	**2.4116E-05**
VOL1	**LHDT1**	0.027	9.7	2.65E-01	5.83E-04	3.07E-06	
	LHDT2	0.027	4.4	1.19E-01	2.62E-04	1.38E-06	
	MHDT	0.024	33.0	7.96E-01	1.75E-03	9.22E-06	
	HHDT	0.030	100.0	2.99E+00	6.58E-03	3.46E-05	**4.8232E-05**

Palmyrita Avenue Warehouse Project

Project Operations **24 hours/day**

Emission Rates **Running Emissions 5-25 mph Averaged (EMFAC2021 for the South Coast Air Basin portion of Riverside County by vehicle type and speed)**

Offsite DSL Truck Roadway Emissions

Segment ID	Description	% total Trips
SLINE5	Off-site Truck Travel	100.0%

Segment ID: SLINE5

Travel Distance: 959.5 meters

Operations 24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	9.7	0.0737709	0.60	0.426	4.93E-06
LHDT2-DSL	4.4	0.0674369	0.60	0.175	2.03E-06
MHDT-DSL	33.0	0.0237055	0.60	0.466	5.39E-06
HHDT-DSL	100.0	0.0089888	0.60	0.536	6.20E-06
Total	147.0			**1.60E+00**	**1.86E-05**

DPM 2024

EMFAC Running Diesel Exhaust Emissions
in units of grams/mile

EMFAC2021

		Emission Factor (g/mi)			
		5 mph	**10 mph**	**25 mph**	**35 mph**
LHDT1	DSL	0.105	—	0.048	—
LHDT2	DSL	0.094	—	0.045	—
MHDT	DSL	0.041	—	0.010	—
HHDT	DSL	0.013	—	0.007	—

Idling Emissions for Trucks

Vehicle Class	**Fuel**	**Vehicle Speed (mph)**	**DPM (grams/trip)**
LHDT1	DSL	Idle	0.027326
LHDT2	DSL	Idle	0.027309
MHDT	DSL	Idle	0.024164
HHDT	DSL	Idle	0.029869

Off-site Truck Running Emissions for the Health Risk Screening Analysis—XX

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Riverside (SC)	2024	HHDT	Aggregate	5	Diesel	78.98900926	10.54786759	0.012505365	0.013070802	3185.826321	0.005961199	0.501928234	0.128342986	0.14610872	1.174959344	0.03016787
Riverside (SC)	2024	HHDT	Aggregate	10	Diesel	1775.474132	7.645351619	0.010723033	0.011207881	2728.832703	0.003540551	0.429928704	0.076227088	0.086778737	0.734996919	0.025840414
Riverside (SC)	2024	HHDT	Aggregate	15	Diesel	2255.26306	5.066894453	0.008649122	0.009040197	2242.361449	0.001807632	0.353284959	0.038917826	0.044304983	0.401484463	0.021233822
Riverside (SC)	2024	HHDT	Aggregate	20	Diesel	53817.37933	2.997351557	0.004672867	0.004884153	2041.2366	0.00095534	0.321597658	0.020568207	0.023415338	0.245742672	0.01932929
Riverside (SC)	2024	HHDT	Aggregate	25	Diesel	21381.31455	3.025565516	0.006449152	0.006740754	1788.115596	0.000839729	0.28171834	0.018079145	0.02058173	0.212529131	0.016932385
						Total	29.28303073	0.042999538	0.044943786	11986.37267	0.013104452	1.888457895	0.282135252	0.321189508	2.769712529	0.113503781
Riverside (SC)	2024	LHDT1	Aggregate	5	Diesel	34.70747808	2.467775192	0.100823649	0.105382447	1195.01218	0.021321877	0.188274656	0.459047451	0.522595003	1.474817225	0.011323348
Riverside (SC)	2024	LHDT1	Aggregate	10	Diesel	660.7517188	2.291214766	0.08237373	0.086098305	1035.333699	0.017445805	0.163117246	0.375597921	0.427593262	1.173914466	0.009810313
Riverside (SC)	2024	LHDT1	Aggregate	15	Diesel	676.8864444	2.138258962	0.067734068	0.070796702	869.0332848	0.014448831	0.136916548	0.311074831	0.354138013	0.94172775	0.008234532
Riverside (SC)	2024	LHDT1	Aggregate	20	Diesel	2319.232173	2.00813341	0.055847685	0.05837287	751.5480552	0.01204883	0.118406702	0.259404224	0.295314463	0.7570182	0.0071213
Riverside (SC)	2024	LHDT1	Aggregate	25	Diesel	13720.16123	1.905003012	0.046118652	0.048203933	653.3807717	0.01008674	0.102940407	0.217161571	0.24722401	0.607971135	0.006191115
						Total	10.81038534	0.352897784	0.368854256	4504.307991	0.075352084	0.709655558	1.622285997	1.846864751	4.955448776	0.042680607
Riverside (SC)	2024	LHDT2	Aggregate	5	Diesel	15.73838616	2.250113866	0.090215048	0.094294172	1426.30061	0.018794267	0.224714242	0.404629497	0.460643781	1.284461336	0.013514923
Riverside (SC)	2024	LHDT2	Aggregate	10	Diesel	299.6232016	2.036428167	0.07496386	0.078353393	1243.279088	0.015754937	0.195879127	0.339194528	0.386150419	1.040985924	0.011780701
Riverside (SC)	2024	LHDT2	Aggregate	15	Diesel	306.9396232	1.848689392	0.062399734	0.065221173	1061.08179	0.013294091	0.167173868	0.286213959	0.325835564	0.843743483	0.010054289
Riverside (SC)	2024	LHDT2	Aggregate	20	Diesel	1051.674554	1.686326852	0.051901244	0.054247988	918.4009143	0.011245297	0.144694438	0.242104613	0.275620006	0.680555385	0.008702315
Riverside (SC)	2024	LHDT2	Aggregate	25	Diesel	6221.517884	1.552874648	0.043118026	0.045067631	797.8404445	0.009514718	0.125700087	0.204846274	0.233203864	0.544646951	0.007559944
						Total	9.374432925	0.322597912	0.337184358	5446.902846	0.06860331	0.858161762	1.476988871	1.681453633	4.394393079	0.051612173
Riverside (SC)	2024	MHDT	Aggregate	5	Diesel	265.8486488	3.591084713	0.039173335	0.040944579	2418.261289	0.009512805	0.380998051	0.204808084	0.233158414	0.504491478	0.022899488
Riverside (SC)	2024	MHDT	Aggregate	10	Diesel	1046.951297	2.68323681	0.031327149	0.032743623	2004.231388	0.006465627	0.315767471	0.139203174	0.158472217	0.35747404	0.018978873
Riverside (SC)	2024	MHDT	Aggregate	15	Diesel	1518.897156	1.866832619	0.019983388	0.020886948	1576.960333	0.003223323	0.248450743	0.069397259	0.079003497	0.225820843	0.014932871
Riverside (SC)	2024	MHDT	Aggregate	20	Diesel	3664.345504	1.488228336	0.012914771	0.01349872	1343.260843	0.001593868	0.211631293	0.034315551	0.039065642	0.161666038	0.012719877
Riverside (SC)	2024	MHDT	Aggregate	25	Diesel	16808.58128	1.249040961	0.01000152	0.010453744	1211.38586	0.001139081	0.190854336	0.024524092	0.027918812	0.129284368	0.0114711
						Total	10.87842344	0.113400162	0.118527614	8554.099713	0.021934704	1.347701893	0.47224816	0.537618582	1.378736768	0.081002209

Running Emissions 5-25 MPH Averaged

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
HHDT	**5.8566**	**0.0086**	**0.0090**	**2397.2745**	**0.0026**	**0.3777**	**0.0564**	**0.0642**	**0.5539**	**0.0227**
LHDT1	**2.1621**	**0.0706**	**0.0738**	**900.8616**	**0.0151**	**0.1419**	**0.3245**	**0.3694**	**0.9911**	**0.0085**
LHDT2	**1.8749**	**0.0645**	**0.0674**	**1089.3806**	**0.0137**	**0.1716**	**0.2954**	**0.3363**	**0.8789**	**0.0103**
MHDT	**2.1757**	**0.0227**	**0.0237**	**1710.8199**	**0.0044**	**0.2695**	**0.0944**	**0.1075**	**0.2757**	**0.0162**

Palmyrita Avenue Warehouse Project

Summary of Emissions in Pounds

Diesel Truck Idling Emissions

Segment - On-site Truck Idle	Emissions (g/day)	Emissions (lb/day)	Emissions (lb/year)	Max Emissions in an Hour (lbs/hr)	
On-site Idling – Location 1	2.083636585	0.004589508	1.675170382	0.000458951	Loading Docks Building 1
On-site Idling – Location 2	2.083636585	0.004589508	1.675170382	0.000458951	Loading Docks Building 2
On-site Idling – Location 3	4.167273169	0.009179016	3.350340764	0.000917902	Trailer Parking
Subtotal Idle	**8.334546338**	**0.018358032**	**6.700681527**		

Diesel Truck On-site Travel Emissions (5 mph)

Segment	Source ID	Source Group	Emissions (g/day)	Emissions (lb/day)	Emissions (lb/year)	Max Emissions in an Hour (lbs/hr)
On-site Truck Route 1	ONSITE1	ONSITE1	0.436559775	0.000961585	0.350978674	9.61585E-05
On-site Truck Route 2	ONSITE2	ONSITE2	0.732892028	0.0016143	0.589219362	0.00016143
		Subtotal On-site Travel	**1.169451803**	**0.002575885**	**0.940198036**	

Diesel Truck Localized Off-site Travel Emissions (5-25 mph aggregated)

Segment	Source ID	Source Group	Emissions (g/day)	Emissions (lb/day)	Emissions (lb/year)	Max Emissions in an Hour (lbs/hr)
Off-site Truck Route 1	SLINE5	Off1	1.60302385	0.00353089	1.288774681	0.000588482
		Subtotal Off-site Travel	**1.60302385**	**0.00353089**	**1.288774681**	

Notes: Divided pounds per day by 10 hours to estimate maximum pounds in an hour.

Health Risk Summary (Summary of HARP2 Results)

Palmyrita Avenue Warehouse Project

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	4.979E-07	0.4979	1.13E-04	0.00E+00

	X	Y
MER UTM	469184.28	3763161.46

Receptor # 4

MER = Maximally Exposed Receptor

*HARP - HRACalc v22118 11/3/2022 4:41:54 PM - Cancer Risk - Input File: F:\BACKUP\4996.00017 Palmyrita\02 - V2\HARP\PALMYRITA\hra\PalmyritaHRAInput.hra

*HARP - HRACalc v22118 11/3/2022 4:41:54 PM - Chronic Risk - Input File: F:\BACKUP\4996.00017 Palmyrita\02 - V2\HARP\PALMYRITA\hra\PalmyritaHRAInput.hra

*HARP - HRACalc v22118 11/3/2022 4:41:54 PM - Acute Risk - Input File: F:\BACKUP\4996.00017 Palmyrita\02 - V2\HARP\PALMYRITA\hra\PalmyritaHRAInput.hra

REC	GRP	X	Y	RISK_SUM	SCENARIO	MAXHI NonCancerChronic	MAXHI Acute
1	ALL	469181.21	3763171.19	4.790E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.08E-04	0.00E+00
2	ALL	469180.43	3763187.66	4.472E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-04	0.00E+00
3	ALL	469197.68	3763200.2	4.164E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	9.42E-05	0.00E+00
4	ALL	469184.28	3763161.46	4.979E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.13E-04	0.00E+00
5	ALL	469202.62	3763178.61	4.494E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-04	0.00E+00
6	ALL	469202.6	3763160.03	4.868E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-04	0.00E+00
7	ALL	469230.58	3763154.76	4.693E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-04	0.00E+00
8	ALL	469254.37	3763155.85	4.457E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-04	0.00E+00
9	ALL	469249.28	3763174.92	4.209E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	9.52E-05	0.00E+00
10	ALL	469276.89	3763154.04	4.296E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	9.72E-05	0.00E+00
11	ALL	469289.79	3763155.67	4.159E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	9.41E-05	0.00E+00
12	ALL	469289.97	3763168.75	4.025E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	9.10E-05	0.00E+00
13	ALL	469332.34	3763167.95	3.742E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	8.46E-05	0.00E+00
14	ALL	469211.85	3763343.48	2.508E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.67E-05	0.00E+00
15	ALL	469185.38	3763375.01	2.323E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.26E-05	0.00E+00
16	ALL	469191.26	3763390.14	2.184E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.94E-05	0.00E+00
17	ALL	469207.65	3763367.44	2.290E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.18E-05	0.00E+00
18	ALL	469194.2	3763420.4	1.980E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.48E-05	0.00E+00
19	ALL	469268.17	3763313.64	2.589E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.86E-05	0.00E+00
20	ALL	469248.42	3763343.48	2.362E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.34E-05	0.00E+00
21	ALL	469252.62	3763357.77	2.241E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.07E-05	0.00E+00
22	ALL	469192.05	3763403.32	2.089E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.73E-05	0.00E+00
23	ALL	468258.4	3762314.78	2.664E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	6.02E-05	0.00E+00
24	ALL	468245.93	3761977.99	1.256E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	2.84E-05	0.00E+00
25	ALL	468580.64	3761973.83	1.146E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	2.59E-05	0.00E+00
26	ALL	468593.11	3761971.75	1.137E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	2.57E-05	0.00E+00
27	ALL	468595.19	3762316.86	3.255E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	7.36E-05	0.00E+00
28	ALL	468260.48	3762323.1	2.716E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	6.14E-05	0.00E+00
29	ALL	468258.22	3762309.83	2.636E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.96E-05	0.00E+00
30	ALL	468258.03	3762304.87	2.608E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.90E-05	0.00E+00
31	ALL	468257.85	3762299.92	2.581E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.84E-05	0.00E+00
32	ALL	468257.67	3762294.97	2.553E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.77E-05	0.00E+00
33	ALL	468257.48	3762290.02	2.526E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.71E-05	0.00E+00
34	ALL	468257.3	3762285.06	2.498E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.65E-05	0.00E+00
35	ALL	468257.12	3762280.11	2.470E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.59E-05	0.00E+00
36	ALL	468256.93	3762275.16	2.441E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.52E-05	0.00E+00
37	ALL	468256.75	3762270.21	2.413E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.46E-05	0.00E+00
38	ALL	468256.57	3762265.25	2.385E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.39E-05	0.00E+00
39	ALL	468256.38	3762260.3	2.357E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.33E-05	0.00E+00
40	ALL	468256.2	3762255.35	2.329E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.27E-05	0.00E+00
41	ALL	468256.02	3762250.39	2.303E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.21E-05	0.00E+00
42	ALL	468255.83	3762245.44	2.277E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.15E-05	0.00E+00
43	ALL	468255.65	3762240.49	2.251E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.09E-05	0.00E+00
44	ALL	468255.47	3762235.54	2.226E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	5.03E-05	0.00E+00
45	ALL	468255.28	3762230.58	2.200E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.98E-05	0.00E+00
46	ALL	468255.1	3762225.63	2.175E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.92E-05	0.00E+00
47	ALL	468254.92	3762220.68	2.151E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.86E-05	0.00E+00
48	ALL	468254.73	3762215.72	2.126E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.81E-05	0.00E+00
49	ALL	468254.55	3762210.77	2.102E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.75E-05	0.00E+00
50	ALL	468254.37	3762205.82	2.078E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.70E-05	0.00E+00
51	ALL	468254.18	3762200.87	2.055E-07	30YrCancerHighEnd_InhSoilDermMMilkCrops	4.65E-05	0.00E+00

HARP2 - HRACalc (dated 22118) 11/3/2022 4:41:54 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True

Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

```
*********************************
TIER 2 SETTINGS
Tier2 not used.

*********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaCancerRisk.csv
Cancer risk total by receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaNCAcuteRisk.csv
Acute risk total by receptor saved to: F:\BACKUP\4996.00017 Palmyrita\02 -
V2\HARP\PALMYRITA\hra\PalmyritaNCAcuteRiskSumByRec.csv
HRA ran successfully
```

```
* AERMOD (22112 ): C:\Project\Riverside Palmyrita Avenue Warehouse 4996.0017\AERMOD\Pal     11/03/22
* AERMET ( 16216):                                                                         14:06:08
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
*         PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS   5 YEARS FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   592 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)
```

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
469181.21000	3763171.19000	23.58034	293.00	877.00	0.00	ANNUAL	ALL	00000005	
469180.43000	3763187.66000	22.23865	292.93	877.00	0.00	ANNUAL	ALL	00000005	
469197.68000	3763200.20000	20.83173	292.64	877.00	0.00	ANNUAL	ALL	00000005	
469184.28000	3763161.46000	24.35742	293.00	877.00	0.00	ANNUAL	ALL	00000005	
469202.62000	3763178.61000	22.18397	293.00	877.00	0.00	ANNUAL	ALL	00000005	
469202.60000	3763160.03000	23.77244	293.00	877.00	0.00	ANNUAL	ALL	00000005	
469230.58000	3763154.76000	22.80864	293.70	877.00	0.00	ANNUAL	ALL	00000005	
469254.37000	3763155.85000	21.69866	294.00	877.00	0.00	ANNUAL	ALL	00000005	
469249.28000	3763174.92000	20.73265	293.19	877.00	0.00	ANNUAL	ALL	00000005	
469276.89000	3763154.04000	20.96021	294.02	877.00	0.00	ANNUAL	ALL	00000005	
469289.79000	3763155.67000	20.35440	294.02	914.00	0.00	ANNUAL	ALL	00000005	
469289.97000	3763168.75000	19.90041	292.63	914.00	0.00	ANNUAL	ALL	00000005	
469332.34000	3763167.95000	18.66184	292.07	914.00	0.00	ANNUAL	ALL	00000005	
469211.85000	3763343.48000	13.18551	291.58	877.00	0.00	ANNUAL	ALL	00000005	
469185.38000	3763375.01000	12.32145	291.61	877.00	0.00	ANNUAL	ALL	00000005	
469191.26000	3763390.14000	11.58887	292.26	866.00	0.00	ANNUAL	ALL	00000005	
469207.65000	3763367.44000	12.06728	292.87	877.00	0.00	ANNUAL	ALL	00000005	
469194.20000	3763420.40000	10.54017	292.49	866.00	0.00	ANNUAL	ALL	00000005	
469268.17000	3763313.64000	13.47787	291.33	877.00	0.00	ANNUAL	ALL	00000005	
469248.42000	3763343.48000	12.33494	293.07	877.00	0.00	ANNUAL	ALL	00000005	
469252.62000	3763357.77000	11.73096	293.31	877.00	0.00	ANNUAL	ALL	00000005	
469192.05000	3763403.32000	11.10231	292.42	866.00	0.00	ANNUAL	ALL	00000005	
468258.40000	3762314.78000	17.76075	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468245.93000	3761977.99000	7.83414	276.25	914.00	0.00	ANNUAL	ALL	00000005	
468580.64000	3761973.83000	6.84841	280.04	914.00	0.00	ANNUAL	ALL	00000005	
468593.11000	3761971.75000	6.78532	280.45	914.00	0.00	ANNUAL	ALL	00000005	
468595.19000	3762316.86000	20.19392	279.52	914.00	0.00	ANNUAL	ALL	00000005	
468260.48000	3762323.10000	18.14178	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468258.22000	3762309.83000	17.55282	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468258.03000	3762304.87000	17.34573	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468257.85000	3762299.92000	17.14062	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468257.67000	3762294.97000	16.93698	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468257.48000	3762290.02000	16.73472	275.00	914.00	0.00	ANNUAL	ALL	00000005	
468257.30000	3762285.06000	16.53050	274.96	914.00	0.00	ANNUAL	ALL	00000005	
468257.12000	3762280.11000	16.32195	274.84	914.00	0.00	ANNUAL	ALL	00000005	
468256.93000	3762275.16000	16.11440	274.71	914.00	0.00	ANNUAL	ALL	00000005	
468256.75000	3762270.21000	15.90971	274.59	914.00	0.00	ANNUAL	ALL	00000005	
468256.57000	3762265.25000	15.70584	274.46	914.00	0.00	ANNUAL	ALL	00000005	
468256.38000	3762260.30000	15.50353	274.32	914.00	0.00	ANNUAL	ALL	00000005	
468256.20000	3762255.35000	15.30572	274.21	914.00	0.00	ANNUAL	ALL	00000005	
468256.02000	3762250.39000	15.11494	274.17	914.00	0.00	ANNUAL	ALL	00000005	
468255.83000	3762245.44000	14.92643	274.13	914.00	0.00	ANNUAL	ALL	00000005	
468255.65000	3762240.49000	14.73997	274.09	914.00	0.00	ANNUAL	ALL	00000005	
468255.47000	3762235.54000	14.55624	274.06	914.00	0.00	ANNUAL	ALL	00000005	
468255.28000	3762230.58000	14.37409	274.03	914.00	0.00	ANNUAL	ALL	00000005	
468255.10000	3762225.63000	14.19438	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.92000	3762220.68000	14.01879	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.73000	3762215.72000	13.84478	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.55000	3762210.77000	13.67317	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.37000	3762205.82000	13.50357	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.18000	3762200.87000	13.33595	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468254.00000	3762195.91000	13.17007	274.00	914.00	0.00	ANNUAL	ALL	00000005	
468253.82000	3762190.96000	13.00841	274.03	914.00	0.00	ANNUAL	ALL	00000005	
468253.63000	3762186.01000	12.84810	274.05	914.00	0.00	ANNUAL	ALL	00000005	
468253.45000	3762181.06000	12.68981	274.07	914.00	0.00	ANNUAL	ALL	00000005	
468253.27000	3762176.10000	12.53262	274.08	914.00	0.00	ANNUAL	ALL	00000005	
468253.08000	3762171.15000	12.37834	274.10	914.00	0.00	ANNUAL	ALL	00000005	
468252.90000	3762166.20000	12.22552	274.11	914.00	0.00	ANNUAL	ALL	00000005	
468252.72000	3762161.24000	12.07389	274.11	914.00	0.00	ANNUAL	ALL	00000005	
468252.53000	3762156.29000	11.92405	274.10	914.00	0.00	ANNUAL	ALL	00000005	
468252.35000	3762151.34000	11.77627	274.09	914.00	0.00	ANNUAL	ALL	00000005	
468252.16000	3762146.38000	11.63075	274.09	914.00	0.00	ANNUAL	ALL	00000005	
468251.98000	3762141.43000	11.48705	274.08	914.00	0.00	ANNUAL	ALL	00000005	

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468251.80000 3762136.48000     11.34587   274.08   914.00     0.00  ANNUAL  ALL       00000005
468251.61000 3762131.53000     11.21397   274.23   914.00     0.00  ANNUAL  ALL       00000005
468251.43000 3762126.57000     11.08341   274.38   914.00     0.00  ANNUAL  ALL       00000005
468251.25000 3762121.62000     10.95477   274.53   914.00     0.00  ANNUAL  ALL       00000005
468251.06000 3762116.67000     10.82776   274.68   914.00     0.00  ANNUAL  ALL       00000005
468250.88000 3762111.71000     10.70253   274.84   914.00     0.00  ANNUAL  ALL       00000005
468250.70000 3762106.76000     10.57875   274.99   914.00     0.00  ANNUAL  ALL       00000005
468250.51000 3762101.81000     10.45131   275.01   914.00     0.00  ANNUAL  ALL       00000005
468250.33000 3762096.86000     10.32493   275.01   914.00     0.00  ANNUAL  ALL       00000005
468250.15000 3762091.90000     10.20018   275.01   914.00     0.00  ANNUAL  ALL       00000005
468249.96000 3762086.95000     10.07755   275.01   914.00     0.00  ANNUAL  ALL       00000005
468249.78000 3762082.00000      9.95675   275.01   914.00     0.00  ANNUAL  ALL       00000005
468249.60000 3762077.05000      9.83738   275.00   914.00     0.00  ANNUAL  ALL       00000005
468249.41000 3762072.09000      9.72542   275.15   914.00     0.00  ANNUAL  ALL       00000005
468249.23000 3762067.14000      9.61553   275.31   914.00     0.00  ANNUAL  ALL       00000005
468249.05000 3762062.19000      9.50712   275.47   914.00     0.00  ANNUAL  ALL       00000005
468248.86000 3762057.23000      9.39997   275.63   914.00     0.00  ANNUAL  ALL       00000005
468248.68000 3762052.28000      9.29448   275.79   914.00     0.00  ANNUAL  ALL       00000005
468248.50000 3762047.33000      9.19011   275.94   914.00     0.00  ANNUAL  ALL       00000005
468248.31000 3762042.38000      9.08331   275.96   914.00     0.00  ANNUAL  ALL       00000005
468248.13000 3762037.42000      8.97701   275.95   914.00     0.00  ANNUAL  ALL       00000005
468247.95000 3762032.47000      8.87284   275.95   914.00     0.00  ANNUAL  ALL       00000005
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468465.30000	3762319.28000	20.66500	276.28	914.00	0.00	ANNUAL	ALL	00000005
468460.31000	3762319.38000	20.61371	276.12	914.00	0.00	ANNUAL	ALL	00000005
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468435.33000	3762319.84000	20.31814	275.30	914.00	0.00	ANNUAL	ALL	00000005
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468365.39000	3762321.14000	19.68731	276.00	914.00	0.00	ANNUAL	ALL	00000005
468360.39000	3762321.24000	19.62704	276.00	914.00	0.00	ANNUAL	ALL	00000005
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468350.40000	3762321.42000	19.50255	276.00	914.00	0.00	ANNUAL	ALL	00000005
468345.41000	3762321.52000	19.43952	276.00	914.00	0.00	ANNUAL	ALL	00000005

468340.41000	3762321.61000	19.37490	276.00	914.00	0.00	ANNUAL	ALL	00000005
468335.42000	3762321.70000	19.29505	275.86	914.00	0.00	ANNUAL	ALL	00000005
468330.42000	3762321.80000	19.21281	275.70	914.00	0.00	ANNUAL	ALL	00000005
468325.42000	3762321.89000	19.12826	275.53	914.00	0.00	ANNUAL	ALL	00000005
468320.43000	3762321.98000	19.04314	275.36	914.00	0.00	ANNUAL	ALL	00000005
468315.43000	3762322.08000	18.95876	275.20	914.00	0.00	ANNUAL	ALL	00000005
468310.44000	3762322.17000	18.87230	275.03	914.00	0.00	ANNUAL	ALL	00000005
468305.44000	3762322.26000	18.79972	275.00	914.00	0.00	ANNUAL	ALL	00000005
468300.45000	3762322.35000	18.72964	275.00	914.00	0.00	ANNUAL	ALL	00000005
468295.45000	3762322.45000	18.65907	275.00	914.00	0.00	ANNUAL	ALL	00000005
468290.45000	3762322.54000	18.58722	275.00	914.00	0.00	ANNUAL	ALL	00000005
468285.46000	3762322.63000	18.51475	275.00	914.00	0.00	ANNUAL	ALL	00000005
468280.46000	3762322.73000	18.44182	275.00	914.00	0.00	ANNUAL	ALL	00000005
468275.47000	3762322.82000	18.36786	275.00	914.00	0.00	ANNUAL	ALL	00000005
468270.47000	3762322.91000	18.29302	275.00	914.00	0.00	ANNUAL	ALL	00000005
468265.48000	3762323.01000	18.21805	275.00	914.00	0.00	ANNUAL	ALL	00000005
468259.44000	3762318.94000	17.95031	275.00	914.00	0.00	ANNUAL	ALL	00000005
469861.62000	3763923.36000	2.49162	302.85	866.00	0.00	ANNUAL	ALL	00000005
469858.61000	3763691.98000	3.12641	304.10	877.00	0.00	ANNUAL	ALL	00000005
469983.32000	3763688.97000	2.74305	307.79	877.00	0.00	ANNUAL	ALL	00000005
470038.91000	3763688.97000	2.58672	309.64	877.00	0.00	ANNUAL	ALL	00000005
470046.42000	3763921.86000	2.11817	307.89	877.00	0.00	ANNUAL	ALL	00000005
470043.89000	3763930.23000	2.10932	307.81	877.00	0.00	ANNUAL	ALL	00000005
469861.15000	3763927.09000	2.48422	302.81	866.00	0.00	ANNUAL	ALL	00000005
469861.56000	3763918.44000	2.50270	302.89	866.00	0.00	ANNUAL	ALL	00000005
469861.49000	3763913.51000	2.51364	302.94	866.00	0.00	ANNUAL	ALL	00000005
469861.43000	3763908.59000	2.52484	302.98	866.00	0.00	ANNUAL	ALL	00000005
469861.36000	3763903.67000	2.53661	303.00	866.00	0.00	ANNUAL	ALL	00000005
469861.30000	3763898.75000	2.54894	303.00	866.00	0.00	ANNUAL	ALL	00000005
469861.24000	3763893.82000	2.56136	303.00	866.00	0.00	ANNUAL	ALL	00000005
469861.17000	3763888.90000	2.57386	303.00	877.00	0.00	ANNUAL	ALL	00000005
469861.11000	3763883.98000	2.58641	303.00	877.00	0.00	ANNUAL	ALL	00000005
469861.04000	3763879.05000	2.59909	303.00	877.00	0.00	ANNUAL	ALL	00000005
469860.98000	3763874.13000	2.61027	303.06	877.00	0.00	ANNUAL	ALL	00000005
469860.92000	3763869.21000	2.62021	303.17	877.00	0.00	ANNUAL	ALL	00000005
469860.85000	3763864.28000	2.62998	303.29	877.00	0.00	ANNUAL	ALL	00000005
469860.79000	3763859.36000	2.64002	303.40	877.00	0.00	ANNUAL	ALL	00000005
469860.72000	3763854.44000	2.64986	303.52	877.00	0.00	ANNUAL	ALL	00000005
469860.66000	3763849.52000	2.65999	303.63	877.00	0.00	ANNUAL	ALL	00000005
469860.60000	3763844.59000	2.67127	303.70	877.00	0.00	ANNUAL	ALL	00000005
469860.53000	3763839.67000	2.68451	303.70	877.00	0.00	ANNUAL	ALL	00000005
469860.47000	3763834.75000	2.69783	303.70	877.00	0.00	ANNUAL	ALL	00000005
469860.40000	3763829.82000	2.71157	303.69	877.00	0.00	ANNUAL	ALL	00000005
469860.34000	3763824.90000	2.72509	303.69	877.00	0.00	ANNUAL	ALL	00000005
469860.28000	3763819.98000	2.73871	303.69	877.00	0.00	ANNUAL	ALL	00000005
469860.21000	3763815.05000	2.75249	303.69	877.00	0.00	ANNUAL	ALL	00000005
469860.15000	3763810.13000	2.76662	303.68	877.00	0.00	ANNUAL	ALL	00000005
469860.08000	3763805.21000	2.78059	303.68	877.00	0.00	ANNUAL	ALL	00000005
469860.02000	3763800.29000	2.79466	303.68	877.00	0.00	ANNUAL	ALL	00000005
469859.95000	3763795.36000	2.80890	303.68	877.00	0.00	ANNUAL	ALL	00000005
469859.89000	3763790.44000	2.82321	303.68	877.00	0.00	ANNUAL	ALL	00000005
469859.83000	3763785.52000	2.83793	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.76000	3763780.59000	2.85255	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.70000	3763775.67000	2.86724	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.63000	3763770.75000	2.88208	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.57000	3763765.83000	2.89705	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.51000	3763760.90000	2.91249	303.66	877.00	0.00	ANNUAL	ALL	00000005
469859.44000	3763755.98000	2.92746	303.67	877.00	0.00	ANNUAL	ALL	00000005
469859.38000	3763751.06000	2.94131	303.72	877.00	0.00	ANNUAL	ALL	00000005
469859.31000	3763746.13000	2.95503	303.78	877.00	0.00	ANNUAL	ALL	00000005
469859.25000	3763741.21000	2.96914	303.83	877.00	0.00	ANNUAL	ALL	00000005
469859.19000	3763736.29000	2.98306	303.89	877.00	0.00	ANNUAL	ALL	00000005
469859.12000	3763731.36000	2.99750	303.94	877.00	0.00	ANNUAL	ALL	00000005
469859.06000	3763726.44000	3.01170	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.99000	3763721.52000	3.02802	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.93000	3763716.60000	3.04449	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.87000	3763711.67000	3.06118	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.80000	3763706.75000	3.07804	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.74000	3763701.83000	3.09509	304.00	877.00	0.00	ANNUAL	ALL	00000005
469858.67000	3763696.90000	3.11238	304.00	877.00	0.00	ANNUAL	ALL	00000005
469863.60000	3763691.86000	3.11419	304.12	877.00	0.00	ANNUAL	ALL	00000005
469868.59000	3763691.74000	3.10168	304.15	877.00	0.00	ANNUAL	ALL	00000005
469873.58000	3763691.62000	3.08619	304.27	877.00	0.00	ANNUAL	ALL	00000005

469878.56000	3763691.50000	3.06980	304.42	877.00	0.00	ANNUAL	ALL	00000005
469883.55000	3763691.38000	3.05382	304.56	877.00	0.00	ANNUAL	ALL	00000005
469888.54000	3763691.26000	3.03793	304.70	877.00	0.00	ANNUAL	ALL	00000005
469893.53000	3763691.14000	3.02246	304.83	877.00	0.00	ANNUAL	ALL	00000005
469898.52000	3763691.02000	3.00676	304.97	877.00	0.00	ANNUAL	ALL	00000005
469903.51000	3763690.90000	2.99050	305.13	877.00	0.00	ANNUAL	ALL	00000005
469908.49000	3763690.78000	2.97404	305.30	877.00	0.00	ANNUAL	ALL	00000005
469913.48000	3763690.66000	2.95799	305.46	877.00	0.00	ANNUAL	ALL	00000005
469918.47000	3763690.54000	2.94173	305.63	877.00	0.00	ANNUAL	ALL	00000005
469923.46000	3763690.42000	2.92558	305.80	877.00	0.00	ANNUAL	ALL	00000005
469928.45000	3763690.29000	2.90991	305.96	877.00	0.00	ANNUAL	ALL	00000005
469933.44000	3763690.17000	2.89400	306.13	877.00	0.00	ANNUAL	ALL	00000005
469938.42000	3763690.05000	2.87855	306.29	877.00	0.00	ANNUAL	ALL	00000005
469943.41000	3763689.93000	2.86288	306.46	877.00	0.00	ANNUAL	ALL	00000005
469948.40000	3763689.81000	2.84733	306.63	877.00	0.00	ANNUAL	ALL	00000005
469953.39000	3763689.69000	2.83223	306.79	877.00	0.00	ANNUAL	ALL	00000005
469958.38000	3763689.57000	2.81693	306.96	877.00	0.00	ANNUAL	ALL	00000005
469963.37000	3763689.45000	2.80176	307.13	877.00	0.00	ANNUAL	ALL	00000005
469968.35000	3763689.33000	2.78706	307.29	877.00	0.00	ANNUAL	ALL	00000005
469973.34000	3763689.21000	2.77215	307.46	877.00	0.00	ANNUAL	ALL	00000005
469978.33000	3763689.09000	2.75769	307.62	877.00	0.00	ANNUAL	ALL	00000005
469987.95000	3763688.97000	2.72950	307.94	877.00	0.00	ANNUAL	ALL	00000005
469992.59000	3763688.97000	2.71573	308.10	877.00	0.00	ANNUAL	ALL	00000005
469997.22000	3763688.97000	2.70241	308.25	877.00	0.00	ANNUAL	ALL	00000005
470001.85000	3763688.97000	2.68890	308.41	877.00	0.00	ANNUAL	ALL	00000005
470006.48000	3763688.97000	2.67582	308.56	877.00	0.00	ANNUAL	ALL	00000005
470011.11000	3763688.97000	2.66256	308.72	877.00	0.00	ANNUAL	ALL	00000005
470015.75000	3763688.97000	2.64970	308.87	877.00	0.00	ANNUAL	ALL	00000005
470020.38000	3763688.97000	2.63668	309.03	877.00	0.00	ANNUAL	ALL	00000005
470025.01000	3763688.97000	2.62409	309.18	877.00	0.00	ANNUAL	ALL	00000005
470029.65000	3763688.97000	2.61161	309.33	877.00	0.00	ANNUAL	ALL	00000005
470034.28000	3763688.97000	2.59895	309.49	877.00	0.00	ANNUAL	ALL	00000005
470039.07000	3763693.92000	2.57188	309.65	877.00	0.00	ANNUAL	ALL	00000005
470039.23000	3763698.88000	2.55905	309.60	877.00	0.00	ANNUAL	ALL	00000005
470039.39000	3763703.83000	2.54795	309.50	877.00	0.00	ANNUAL	ALL	00000005
470039.55000	3763708.79000	2.53729	309.39	877.00	0.00	ANNUAL	ALL	00000005
470039.71000	3763713.75000	2.52650	309.29	877.00	0.00	ANNUAL	ALL	00000005
470039.87000	3763718.70000	2.51619	309.18	877.00	0.00	ANNUAL	ALL	00000005
470040.03000	3763723.66000	2.50631	309.06	877.00	0.00	ANNUAL	ALL	00000005
470040.19000	3763728.61000	2.49545	308.98	877.00	0.00	ANNUAL	ALL	00000005
470040.35000	3763733.57000	2.48389	308.93	877.00	0.00	ANNUAL	ALL	00000005
470040.51000	3763738.52000	2.47252	308.88	877.00	0.00	ANNUAL	ALL	00000005
470040.67000	3763743.48000	2.46130	308.83	877.00	0.00	ANNUAL	ALL	00000005
470040.83000	3763748.43000	2.44999	308.79	877.00	0.00	ANNUAL	ALL	00000005
470040.99000	3763753.39000	2.43909	308.74	877.00	0.00	ANNUAL	ALL	00000005
470041.15000	3763758.34000	2.42756	308.72	877.00	0.00	ANNUAL	ALL	00000005
470041.31000	3763763.30000	2.41562	308.72	877.00	0.00	ANNUAL	ALL	00000005
470041.47000	3763768.25000	2.40361	308.73	877.00	0.00	ANNUAL	ALL	00000005
470041.63000	3763773.21000	2.39201	308.73	877.00	0.00	ANNUAL	ALL	00000005
470041.79000	3763778.16000	2.38033	308.74	877.00	0.00	ANNUAL	ALL	00000005
470041.95000	3763783.12000	2.36904	308.74	877.00	0.00	ANNUAL	ALL	00000005
470042.11000	3763788.07000	2.35766	308.75	877.00	0.00	ANNUAL	ALL	00000005
470042.27000	3763793.03000	2.34641	308.76	877.00	0.00	ANNUAL	ALL	00000005
470042.43000	3763797.98000	2.33559	308.76	877.00	0.00	ANNUAL	ALL	00000005
470042.59000	3763802.94000	2.32462	308.77	877.00	0.00	ANNUAL	ALL	00000005
470042.74000	3763807.89000	2.31408	308.77	877.00	0.00	ANNUAL	ALL	00000005
470042.90000	3763812.85000	2.30339	308.78	877.00	0.00	ANNUAL	ALL	00000005
470043.06000	3763817.80000	2.29309	308.78	877.00	0.00	ANNUAL	ALL	00000005
470043.22000	3763822.76000	2.28264	308.79	877.00	0.00	ANNUAL	ALL	00000005
470043.38000	3763827.71000	2.27258	308.79	877.00	0.00	ANNUAL	ALL	00000005
470043.54000	3763832.67000	2.26237	308.80	877.00	0.00	ANNUAL	ALL	00000005
470043.70000	3763837.62000	2.25253	308.80	877.00	0.00	ANNUAL	ALL	00000005
470043.86000	3763842.58000	2.24255	308.81	877.00	0.00	ANNUAL	ALL	00000005
470044.02000	3763847.53000	2.23340	308.79	877.00	0.00	ANNUAL	ALL	00000005
470044.18000	3763852.49000	2.22691	308.66	877.00	0.00	ANNUAL	ALL	00000005
470044.34000	3763857.44000	2.22072	308.52	877.00	0.00	ANNUAL	ALL	00000005
470044.50000	3763862.40000	2.21432	308.39	877.00	0.00	ANNUAL	ALL	00000005
470044.66000	3763867.35000	2.20821	308.25	877.00	0.00	ANNUAL	ALL	00000005
470044.82000	3763872.31000	2.20188	308.12	877.00	0.00	ANNUAL	ALL	00000005
470044.98000	3763877.26000	2.19539	308.00	877.00	0.00	ANNUAL	ALL	00000005
470045.14000	3763882.22000	2.18692	307.97	877.00	0.00	ANNUAL	ALL	00000005
470045.30000	3763887.17000	2.17832	307.95	877.00	0.00	ANNUAL	ALL	00000005
470045.46000	3763892.13000	2.16976	307.93	877.00	0.00	ANNUAL	ALL	00000005

470045.62000	3763897.08000	2.16129	307.91	877.00	0.00	ANNUAL	ALL	00000005
470045.78000	3763902.04000	2.15287	307.89	877.00	0.00	ANNUAL	ALL	00000005
470045.94000	3763907.00000	2.14431	307.88	877.00	0.00	ANNUAL	ALL	00000005
470046.10000	3763911.95000	2.13560	307.88	877.00	0.00	ANNUAL	ALL	00000005
470046.26000	3763916.90000	2.12676	307.89	877.00	0.00	ANNUAL	ALL	00000005
470045.16000	3763926.04000	2.11375	307.85	877.00	0.00	ANNUAL	ALL	00000005
470038.95000	3763930.15000	2.11979	307.64	877.00	0.00	ANNUAL	ALL	00000005
470034.01000	3763930.06000	2.13010	307.48	877.00	0.00	ANNUAL	ALL	00000005
470029.07000	3763929.98000	2.14042	307.32	877.00	0.00	ANNUAL	ALL	00000005
470024.13000	3763929.89000	2.15099	307.15	877.00	0.00	ANNUAL	ALL	00000005
470019.20000	3763929.81000	2.16136	306.99	877.00	0.00	ANNUAL	ALL	00000005
470014.26000	3763929.72000	2.17199	306.82	877.00	0.00	ANNUAL	ALL	00000005
470009.32000	3763929.64000	2.18241	306.66	877.00	0.00	ANNUAL	ALL	00000005
470004.38000	3763929.55000	2.19310	306.49	877.00	0.00	ANNUAL	ALL	00000005
469999.44000	3763929.47000	2.20358	306.33	877.00	0.00	ANNUAL	ALL	00000005
469994.50000	3763929.38000	2.21431	306.16	877.00	0.00	ANNUAL	ALL	00000005
469989.56000	3763929.30000	2.22484	306.00	877.00	0.00	ANNUAL	ALL	00000005
469984.62000	3763929.21000	2.23477	305.87	877.00	0.00	ANNUAL	ALL	00000005
469979.68000	3763929.13000	2.24448	305.75	877.00	0.00	ANNUAL	ALL	00000005
469974.75000	3763929.04000	2.25422	305.63	877.00	0.00	ANNUAL	ALL	00000005
469969.81000	3763928.96000	2.26397	305.51	877.00	0.00	ANNUAL	ALL	00000005
469964.87000	3763928.87000	2.27376	305.39	877.00	0.00	ANNUAL	ALL	00000005
469959.93000	3763928.79000	2.28354	305.27	877.00	0.00	ANNUAL	ALL	00000005
469954.99000	3763928.70000	2.29182	305.22	877.00	0.00	ANNUAL	ALL	00000005
469950.05000	3763928.62000	2.29986	305.18	877.00	0.00	ANNUAL	ALL	00000005
469945.11000	3763928.53000	2.30793	305.14	877.00	0.00	ANNUAL	ALL	00000005
469940.17000	3763928.45000	2.31620	305.09	877.00	0.00	ANNUAL	ALL	00000005
469935.23000	3763928.36000	2.32426	305.05	866.00	0.00	ANNUAL	ALL	00000005
469930.29000	3763928.28000	2.33230	305.01	866.00	0.00	ANNUAL	ALL	00000005
469925.36000	3763928.19000	2.34284	304.86	866.00	0.00	ANNUAL	ALL	00000005
469920.42000	3763928.11000	2.35385	304.69	866.00	0.00	ANNUAL	ALL	00000005
469915.48000	3763928.02000	2.36467	304.53	866.00	0.00	ANNUAL	ALL	00000005
469910.54000	3763927.94000	2.37573	304.36	866.00	0.00	ANNUAL	ALL	00000005
469905.60000	3763927.85000	2.38660	304.20	866.00	0.00	ANNUAL	ALL	00000005
469900.66000	3763927.77000	2.39748	304.04	866.00	0.00	ANNUAL	ALL	00000005
469895.72000	3763927.68000	2.40863	303.87	866.00	0.00	ANNUAL	ALL	00000005
469890.78000	3763927.60000	2.41955	303.71	866.00	0.00	ANNUAL	ALL	00000005
469885.84000	3763927.51000	2.43075	303.54	866.00	0.00	ANNUAL	ALL	00000005
469880.91000	3763927.43000	2.44171	303.38	866.00	0.00	ANNUAL	ALL	00000005
469875.97000	3763927.35000	2.45294	303.21	866.00	0.00	ANNUAL	ALL	00000005
469871.03000	3763927.26000	2.46399	303.05	866.00	0.00	ANNUAL	ALL	00000005
469866.09000	3763927.17000	2.47435	302.92	866.00	0.00	ANNUAL	ALL	00000005
469297.02000	3763320.57000	12.35554	293.34	877.00	0.00	ANNUAL	ALL	00000005
469299.44000	3763360.06000	10.95064	294.00	877.00	0.00	ANNUAL	ALL	00000005
469305.88000	3763375.38000	10.34667	294.65	877.00	0.00	ANNUAL	ALL	00000005
469296.21000	3763406.01000	9.61006	294.89	877.00	0.00	ANNUAL	ALL	00000005
469316.36000	3763281.07000	13.97994	290.08	877.00	0.00	ANNUAL	ALL	00000005
469355.86000	3763287.52000	12.65932	292.53	877.00	0.00	ANNUAL	ALL	00000005
469395.36000	3763286.71000	11.76937	293.87	877.00	0.00	ANNUAL	ALL	00000005
469357.47000	3763303.64000	11.88477	293.73	877.00	0.00	ANNUAL	ALL	00000005
469338.93000	3763318.15000	11.67013	294.09	877.00	0.00	ANNUAL	ALL	00000005
469356.67000	3763317.34000	11.36246	294.62	877.00	0.00	ANNUAL	ALL	00000005
469382.46000	3763316.54000	10.85015	295.68	877.00	0.00	ANNUAL	ALL	00000005
469338.93000	3763336.69000	10.92942	295.32	877.00	0.00	ANNUAL	ALL	00000005
469362.31000	3763333.46000	10.42114	295.97	877.00	0.00	ANNUAL	ALL	00000005
469355.86000	3763347.97000	10.07021	296.26	877.00	0.00	ANNUAL	ALL	00000005
469375.20000	3763347.17000	9.72254	297.21	877.00	0.00	ANNUAL	ALL	00000005
469397.77000	3763349.58000	9.26413	298.27	877.00	0.00	ANNUAL	ALL	00000005
469349.41000	3763390.69000	8.96579	297.19	877.00	0.00	ANNUAL	ALL	00000005
469395.36000	3763388.28000	8.38351	298.78	877.00	0.00	ANNUAL	ALL	00000005
469251.42000	3763375.11000	11.14696	293.57	877.00	0.00	ANNUAL	ALL	00000005
469252.71000	3763389.58000	10.63257	293.87	877.00	0.00	ANNUAL	ALL	00000005
469263.31000	3763402.50000	10.13757	294.00	877.00	0.00	ANNUAL	ALL	00000005
469252.46000	3763415.17000	9.89569	294.00	877.00	0.00	ANNUAL	ALL	00000005
469303.88000	3763389.84000	9.93794	294.95	877.00	0.00	ANNUAL	ALL	00000005
469294.57000	3763341.20000	11.61553	293.86	877.00	0.00	ANNUAL	ALL	00000005
469194.84000	3763436.71000	10.05852	292.51	866.00	0.00	ANNUAL	ALL	00000005
469197.37000	3763450.18000	9.64770	292.59	866.00	0.00	ANNUAL	ALL	00000005
469198.63000	3763467.01000	9.19786	292.76	866.00	0.00	ANNUAL	ALL	00000005
469205.78000	3763480.05000	8.80574	292.97	866.00	0.00	ANNUAL	ALL	00000005
469258.38000	3763432.51000	9.39486	294.00	866.00	0.00	ANNUAL	ALL	00000005
469255.85000	3763478.79000	8.36319	294.00	866.00	0.00	ANNUAL	ALL	00000005
469258.38000	3763450.60000	8.96124	294.00	866.00	0.00	ANNUAL	ALL	00000005

469255.01000	3763464.90000	8.66411	294.00	866.00	0.00	ANNUAL	ALL	00000005
469351.37000	3763439.24000	7.92991	297.30	877.00	0.00	ANNUAL	ALL	00000005
469267.04000	3763287.77000	14.99130	287.69	877.00	0.00	ANNUAL	ALL	00000005
469266.45000	3763289.56000	14.91656	287.93	877.00	0.00	ANNUAL	ALL	00000005
469399.71000	3763442.01000	7.37194	298.66	877.00	0.00	ANNUAL	ALL	00000005
469365.93000	3763458.90000	7.48188	297.21	877.00	0.00	ANNUAL	ALL	00000005
469352.53000	3763479.29000	7.27847	296.76	877.00	0.00	ANNUAL	ALL	00000005
469350.20000	3763497.93000	7.00448	296.69	866.00	0.00	ANNUAL	ALL	00000005
469405.53000	3763502.01000	6.52339	297.76	877.00	0.00	ANNUAL	ALL	00000005
469907.06000	3763299.93000	5.44346	306.61	914.00	0.00	ANNUAL	ALL	00000005
469864.97000	3763353.38000	5.11695	305.56	914.00	0.00	ANNUAL	ALL	00000005
469870.02000	3763382.42000	4.76405	306.55	914.00	0.00	ANNUAL	ALL	00000005
469872.96000	3763416.94000	4.43005	307.11	914.00	0.00	ANNUAL	ALL	00000005
469871.28000	3763445.13000	4.22266	307.06	877.00	0.00	ANNUAL	ALL	00000005
469914.63000	3763322.24000	5.06452	308.27	914.00	0.00	ANNUAL	ALL	00000005
469924.31000	3763345.39000	4.74264	309.28	914.00	0.00	ANNUAL	ALL	00000005
469920.52000	3763375.69000	4.52353	308.70	914.00	0.00	ANNUAL	ALL	00000005
469924.73000	3763401.36000	4.29453	308.84	914.00	0.00	ANNUAL	ALL	00000005
469918.42000	3763449.34000	3.99779	308.15	914.00	0.00	ANNUAL	ALL	00000005
470012.27000	3763285.62000	4.89936	311.47	914.00	0.00	ANNUAL	ALL	00000005
470013.54000	3763314.66000	4.57106	312.00	914.00	0.00	ANNUAL	ALL	00000005
470019.43000	3763339.49000	4.33484	312.00	914.00	0.00	ANNUAL	ALL	00000005
470020.27000	3763368.54000	4.10481	311.95	914.00	0.00	ANNUAL	ALL	00000005
470016.48000	3763400.52000	3.93385	310.99	914.00	0.00	ANNUAL	ALL	00000005
469981.55000	3763427.46000	3.88880	309.99	914.00	0.00	ANNUAL	ALL	00000005
470016.48000	3763446.40000	3.64044	310.90	914.00	0.00	ANNUAL	ALL	00000005
469970.19000	3763444.29000	3.82389	309.62	914.00	0.00	ANNUAL	ALL	00000005
470069.93000	3763284.36000	4.72615	311.76	914.00	0.00	ANNUAL	ALL	00000005
470062.36000	3763314.24000	4.42168	312.26	914.00	0.00	ANNUAL	ALL	00000005
470064.04000	3763348.75000	4.08499	313.00	914.00	0.00	ANNUAL	ALL	00000005
470060.67000	3763382.42000	3.86429	312.67	914.00	0.00	ANNUAL	ALL	00000005
470064.88000	3763417.78000	3.63189	312.51	914.00	0.00	ANNUAL	ALL	00000005
470061.52000	3763450.18000	3.48758	311.61	914.00	0.00	ANNUAL	ALL	00000005
470064.04000	3763480.07000	3.32403	311.48	914.00	0.00	ANNUAL	ALL	00000005
470063.20000	3763505.74000	3.19598	311.45	914.00	0.00	ANNUAL	ALL	00000005
470010.59000	3763484.27000	3.46996	310.05	914.00	0.00	ANNUAL	ALL	00000005
469968.50000	3763487.22000	3.57897	309.29	877.00	0.00	ANNUAL	ALL	00000005
469928.52000	3763487.64000	3.73308	307.96	877.00	0.00	ANNUAL	ALL	00000005
469893.17000	3763489.33000	3.86198	307.00	877.00	0.00	ANNUAL	ALL	00000005
469850.24000	3763487.64000	4.03167	306.35	877.00	0.00	ANNUAL	ALL	00000005
469875.91000	3763626.53000	3.29073	305.21	877.00	0.00	ANNUAL	ALL	00000005
469874.23000	3763607.17000	3.37886	305.15	877.00	0.00	ANNUAL	ALL	00000005
469872.96000	3763590.76000	3.43791	305.58	877.00	0.00	ANNUAL	ALL	00000005
469880.12000	3763568.87000	3.50022	306.09	877.00	0.00	ANNUAL	ALL	00000005
469904.11000	3763562.56000	3.44891	306.55	877.00	0.00	ANNUAL	ALL	00000005
469927.26000	3763564.66000	3.36551	306.95	877.00	0.00	ANNUAL	ALL	00000005
469927.68000	3763589.07000	3.25398	306.94	877.00	0.00	ANNUAL	ALL	00000005
469923.89000	3763611.38000	3.17407	306.81	877.00	0.00	ANNUAL	ALL	00000005
469922.21000	3763628.21000	3.11385	306.75	877.00	0.00	ANNUAL	ALL	00000005
469976.92000	3763571.82000	3.15890	308.58	877.00	0.00	ANNUAL	ALL	00000005
469969.77000	3763589.49000	3.10629	308.34	877.00	0.00	ANNUAL	ALL	00000005
469972.29000	3763608.01000	3.02468	308.37	877.00	0.00	ANNUAL	ALL	00000005
469974.40000	3763625.69000	2.97129	307.85	877.00	0.00	ANNUAL	ALL	00000005
470014.38000	3763621.48000	2.87402	308.91	877.00	0.00	ANNUAL	ALL	00000005
470033.74000	3763611.80000	2.85714	309.47	877.00	0.00	ANNUAL	ALL	00000005
470026.16000	3763587.39000	2.95728	309.72	877.00	0.00	ANNUAL	ALL	00000005
470021.95000	3763565.50000	3.04583	310.03	877.00	0.00	ANNUAL	ALL	00000005
469992.49000	3763562.98000	3.14743	309.10	877.00	0.00	ANNUAL	ALL	00000005
470057.73000	3763606.75000	2.80948	310.27	877.00	0.00	ANNUAL	ALL	00000005
470050.99000	3763583.60000	2.91860	310.05	877.00	0.00	ANNUAL	ALL	00000005
470066.15000	3763565.92000	2.93682	310.90	877.00	0.00	ANNUAL	ALL	00000005
470095.61000	3763563.82000	2.86181	311.96	877.00	0.00	ANNUAL	ALL	00000005
470109.92000	3763586.55000	2.74929	312.01	877.00	0.00	ANNUAL	ALL	00000005
470104.87000	3763610.54000	2.67348	311.84	877.00	0.00	ANNUAL	ALL	00000005
470098.55000	3763632.84000	2.61153	311.63	877.00	0.00	ANNUAL	ALL	00000005
470088.03000	3763642.94000	2.60366	311.28	877.00	0.00	ANNUAL	ALL	00000005
470058.99000	3763651.78000	2.64836	310.31	877.00	0.00	ANNUAL	ALL	00000005
470032.90000	3763660.62000	2.68953	309.44	877.00	0.00	ANNUAL	ALL	00000005
470014.38000	3763662.30000	2.73564	308.83	877.00	0.00	ANNUAL	ALL	00000005
469995.44000	3763664.41000	2.78412	308.19	877.00	0.00	ANNUAL	ALL	00000005
469974.82000	3763662.72000	2.85181	307.51	877.00	0.00	ANNUAL	ALL	00000005
469954.61000	3763661.04000	2.92041	306.86	877.00	0.00	ANNUAL	ALL	00000005
469934.83000	3763661.46000	2.98008	306.31	877.00	0.00	ANNUAL	ALL	00000005

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  469917.58000 3763664.41000       3.03033   305.67   877.00     0.00  ANNUAL  ALL       00000005
  469895.27000 3763666.09000       3.09910   305.01   877.00     0.00  ANNUAL  ALL       00000005
  469875.07000 3763663.57000       3.15658   305.02   877.00     0.00  ANNUAL  ALL       00000005
  470074.14000 3763682.93000       2.51384   310.82   877.00     0.00  ANNUAL  ALL       00000005
  470085.08000 3763683.77000       2.48485   311.18   877.00     0.00  ANNUAL  ALL       00000005
  470098.55000 3763683.77000       2.45284   311.63   877.00     0.00  ANNUAL  ALL       00000005
  470109.07000 3763683.77000       2.42853   311.98   877.00     0.00  ANNUAL  ALL       00000005
  469364.11000 3763743.02000       4.68645   293.53   773.00     0.00  ANNUAL  ALL       00000005
  468835.94000 3763718.64000       6.90137   283.67   773.00     0.00  ANNUAL  ALL       00000005
  468478.41000 3763653.64000       7.97512   276.36   739.00     0.00  ANNUAL  ALL       00000005
  468100.57000 3763157.97000      12.24481   272.00   686.00     0.00  ANNUAL  ALL       00000005
  467994.94000 3762637.94000      15.21274   271.00   686.00     0.00  ANNUAL  ALL       00000005
  468068.07000 3762329.16000      14.73586   272.00   704.00     0.00  ANNUAL  ALL       00000005
  469108.15000 3762036.64000       5.95392   289.62   939.00     0.00  ANNUAL  ALL       00000005
  469477.86000 3762146.34000       5.74879   299.62   939.00     0.00  ANNUAL  ALL       00000005
  469733.82000 3762381.98000       9.78122   306.47   939.00     0.00  ANNUAL  ALL       00000005
  469685.07000 3762999.53000      19.75607   303.85   914.00     0.00  ANNUAL  ALL       00000005
  468059.13000 3763610.98000       6.17700   269.15   739.00     0.00  ANNUAL  ALL       00000005
** CONCUNIT ug/m^3
** DEPUNIT g/m^2
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Appendix C:
Energy Consumption Calculations

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Appendix C: Energy Consumption Calculations

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Riverside Palmyrita Avenue Warehouse Project Energy Use Summary

Scenario 1: 100% Warehouse

Summary of Energy Use During Construction		(Annually)
Construction equipment fuel	35,152	gallons (gasoline, diesel)
Construction vehicle fuel	69,302	gallons (diesel)
Total construction fuel	104,454	gallons (gasoline, diesel)
Construction office electricity	5,529	kilowatt hours

Summary of Energy Use During Operations		(Annually)
Operation vehicle fuel	356,297	gallons (gasoline, diesel)
Operation natural gas	556,610	kilo-British Thermal Units
Operation electricity	812,617	kilowatt hours

Scenario 2: 75% Warehouse + 25% Manufacturing

Summary of Energy Use During Construction		(Annually)
Construction equipment fuel	35,152	gallons (gasoline, diesel)
Construction vehicle fuel	68,695	gallons (diesel)
Total construction fuel	103,847	gallons (gasoline, diesel)
Construction office electricity	5,529	kilowatt hours

Summary of Energy Use During Operations		(Annually)
Operation vehicle fuel	325,463	gallons (gasoline, diesel)
Operation natural gas	2,352,737	kilo-British Thermal Units
Operation electricity	1,157,996	kilowatt hours

Scenario 1 Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/.

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Calculations

VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
HHDT	Aggregated	Aggregated	GAS	11.93633652	249170.008	67.19986647	3.70789439	923896.07
HHDT	Aggregated	Aggregated	DSL	25146.10122	1271489443	209883.4735	6.05807319	7.703E+09
LDA	Aggregated	Aggregated	GAS	630286.4475	9018576309	313198.7025	28.7950628	2.597E+11
LDA	Aggregated	Aggregated	DSL	2079.221075	25367559.2	600.5815939	42.2383227	1.071E+09
LDT1	Aggregated	Aggregated	GAS	57862.96001	732627799	30848.11342	23.7495171	1.74E+10
LDT1	Aggregated	Aggregated	DSL	31.04422619	208303.278	8.568513904	24.3103157	5063918.4
LDT2	Aggregated	Aggregated	GAS	269494.9026	3990762611	170906.308	23.350587	9.319E+10
LDT2	Aggregated	Aggregated	DSL	851.0940842	13372289.5	419.0304327	31.9124543	426742578
LHDT1	Aggregated	Aggregated	GAS	24429.19054	291677994	22100.44135	13.1978357	3.85E+09
LHDT1	Aggregated	Aggregated	DSL	19515.75426	237356221	11591.74896	20.4763079	4.86E+09
LHDT2	Aggregated	Aggregated	GAS	3795.455147	43857690.6	3740.14748	11.7261928	514283738
LHDT2	Aggregated	Aggregated	DSL	8669.58227	106527003	6259.54676	17.0183253	1.813E+09
MHDT	Aggregated	Aggregated	GAS	1955.423253	32763096	6397.487959	5.12124388	167787805
MHDT	Aggregated	Aggregated	DSL	15232.37207	214039560	23944.75251	8.93889215	1.913E+09

Worker

Sum of VMT*FE (Column BI)	**3.718E+11**
Total VMT	**1.378E+10**
Weighted Average FE	**26.977887**

Vendor

Sum of VMT*FE (Column BI)	**2.082E+10**
Total VMT	**2.198E+09**
Weighted Average FE	**9.4731728**

Haul

Sum of VMT*FE (Column BI)	**7.704E+09**
Total VMT	**1.272E+09**
Weighted Average FE	**6.0576127**

Construction Parameters

Source: AQ/GHG Appendix, CalEEMod Output
Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:38 AM

Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Construction					
Demolition	Demolition	11/20/2023	12/15/2023	5	20
Grading	Grading	11/20/2023	12/15/2023	5	20
Building Construction	Building Construction	12/18/2023	9/20/2024	5	200
Paving	Paving	7/29/2024	8/23/2024	5	20
Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20
Frontage Construction					
Grading	Grading	11/27/2023	11/28/2023	5	2
Paving	Paving	12/6/2023	12/12/2023	5	5
Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles			Number of Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Main Site Construction																
Demolition	15	0	1410	19.8	7.9	20	20	300	0	1,410	5,940	0	28,200	220.18	0.00	4,655.30
Site Preparation	20	0	3000	19.8	7.9	20	20	400	0	3,000	7,920	0	60,000	293.57	0.00	9,904.89
Grading	251	98	0	19.8	7.9	20	200	50,200	19,600	0	993,960	154,840	0	36,843.51	16,345.10	0.00
Building Construction	15	0	0	19.8	7.9	20	20	300	0	0	5,940	0	0	220.18	0.00	0.00
Paving	50	0	0	19.8	7.9	20	20	1,000	0	0	19,800	0	0	733.93	0.00	0.00
Frontage Construction																
Grading	8	0	0	19.8	7.9	20	2	16	0	0	317	0	0	11.74	0.00	0.00
Paving	18	0	0	19.8	7.9	20	5	90	0	0	1,782	0	0	66.05	0.00	0.00
Architectural Coating	2	0	0	19.8	7.9	20	5	10	0	0	198	0	0	7.34	0.00	0.00

Total Project Construction VMT (miles)

1,278,897

Total Project Fuel Consumption (gallons)

69,302 18.45 MPG

Scenario 2 Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/.

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Calculations

VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
HHDT	Aggregated	Aggregated	GAS	11.93633652	249170.008	67.19986647	3.70789439	923896.07
HHDT	Aggregated	Aggregated	DSL	25146.10122	1271489443	209883.4735	6.05807319	7.703E+09
LDA	Aggregated	Aggregated	GAS	630286.4475	9018576309	313198.7025	28.7950628	2.597E+11
LDA	Aggregated	Aggregated	DSL	2079.221075	25367559.2	600.5815939	42.2383227	1.071E+09
LDT1	Aggregated	Aggregated	GAS	57862.96001	732627799	30848.11342	23.7495171	1.74E+10
LDT1	Aggregated	Aggregated	DSL	31.04422619	208303.278	8.568513904	24.3103157	5063918.4
LDT2	Aggregated	Aggregated	GAS	269494.9026	3990762611	170906.308	23.350587	9.319E+10
LDT2	Aggregated	Aggregated	DSL	851.0940842	13372289.5	419.0304327	31.9124543	426742578
LHDT1	Aggregated	Aggregated	GAS	24429.19054	291677994	22100.44135	13.1978357	3.85E+09
LHDT1	Aggregated	Aggregated	DSL	19515.75426	237356221	11591.74896	20.4763079	4.86E+09
LHDT2	Aggregated	Aggregated	GAS	3795.455147	43857690.6	3740.14748	11.7261928	514283738
LHDT2	Aggregated	Aggregated	DSL	8669.58227	106527003	6259.54676	17.0183253	1.813E+09
MHDT	Aggregated	Aggregated	GAS	1955.423253	32763096	6397.487959	5.12124388	167787805
MHDT	Aggregated	Aggregated	DSL	15232.37207	214039560	23944.75251	8.93889215	1.913E+09

	Worker
Sum of VMT*FE (Column BI)	**3.718E+11**
Total VMT	**1.378E+10**
Weighted Average FE	**26.977887**

Vendor	
Sum of VMT*FE (Column BI)	2.082E+10
Total VMT	2.198E+09
Weighted Average FE	9.4731728

Haul	
Sum of VMT*FE (Column BI)	7.704E+09
Total VMT	1.272E+09
Weighted Average FE	6.0576127

Construction Parameters

Source: AQ/GHG Appendix, CalEEMod Output
Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:48 AM

Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Construction					
Demolition	Demolition	11/20/2023	12/15/2023	5	20
Grading	Grading	11/20/2023	12/15/2023	5	20
Building Construction	Building Construction	12/18/2023	9/20/2024	5	200
Paving	Paving	7/29/2024	8/23/2024	5	20
Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20
Frontage Construction					
Grading	Grading	11/27/2023	11/28/2023	5	2
Paving	Paving	12/6/2023	12/12/2023	5	5
Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5

Construction Trips and VMT

Phase Name	Trips per Day		Total Trips	Construction Trip Length in Miles			Number of Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Main Site Construction																
Demolition	15	0	1410	19.8	7.9	20	20	300	0	1,410	5,940	0	28,200	220.18	0.00	4,655.30
Site Preparation	20	0	3000	19.8	7.9	20	20	400	0	3,000	7,920	0	60,000	293.57	0.00	9,904.89
Grading	248	97	0	19.8	7.9	20	200	49,600	19,400	0	982,080	153,260	0	36,403.15	16,178.32	0.00
Building Construction	15	0	0	19.8	7.9	20	20	300	0	0	5,940	0	0	220.18	0.00	0.00
Paving	50	0	0	19.8	7.9	20	20	1,000	0	0	19,800	0	0	733.93	0.00	0.00
Frontage Construction																
Grading	8	0	0	19.8	7.9	20	2	16	0	0	317	0	0	11.74	0.00	0.00
Paving	18	0	0	19.8	7.9	20	5	90	0	0	1,782	0	0	66.05	0.00	0.00
Architectural Coating	2	0	0	19.8	7.9	20	5	10	0	0	198	0	0	7.34	0.00	0.00

Total Project Construction VMT (miles)

1,265,437

Total Project Fuel Consumption (gallons)

68,695 18.42 MPG

Scenario 1 and Scenario 2 Construction Equipment Fuel Calculation

Source: AQ/GHG Appendix, CalEEMod Output
Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:38 AM
Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:46 AM
Riverside Palmyrita Avenue Frontage Construction - Riverside-South Coast County, Annual
Date: 10/12/2022 11:26 AM

Construction Schedule

CalEEMod Run	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Construction					
Demolition	Demolition	11/20/2023	12/15/2023	5	20
Grading	Grading	11/20/2023	12/15/2023	5	20
Building Construction	Building Construction	12/18/2023	9/20/2024	5	200
Paving	Paving	7/29/2024	8/23/2024	5	20
Architectural Coating	Architectural Coating	8/26/2024	9/20/2024	5	20
Frontage Construction					
Grading	Grading	11/27/2023	11/28/2023	5	2
Paving	Paving	12/6/2023	12/12/2023	5	5
Architectural Coating	Architectural Coating	12/13/2023	12/19/2023	5	5

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
Main Site Construction								
Demolition	Concrete/Industrial Saws	1	8	81	0.73	20	9460.8	473.04
Demolition	Excavators	3	8	158	0.38	20	28819.2	1,440.96
Demolition	Rubber Tired Dozers	2	8	247	0.4	20	31616	1,580.80
Grading	Excavators	2	8	158	0.38	20	19212.8	960.64
Grading	Graders	1	8	187	0.41	20	12267.2	613.36
Grading	Rubber Tired Dozers	1	8	247	0.4	20	15808	790.40
Grading	Scrapers	2	8	367	0.48	20	56371.2	2,818.56
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	20	11484.8	574.24
Building Construction	Cranes	1	7	231	0.29	200	93786	4,689.30
Building Construction	Forklifts	3	8	89	0.2	200	85440	4,272.00
Building Construction	Generator Sets	1	8	84	0.74	200	99456	4,972.80
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	200	150738	7,536.90
Building Construction	Welders	1	8	46	0.45	200	33120	1,656.00
Paving	Pavers	2	8	130	0.42	20	17472	873.60
Paving	Paving Equipment	2	8	132	0.36	20	15206.4	760.32
Paving	Rollers	2	8	80	0.38	20	9728	486.40
Architectural Coating	Air Compressors	1	6	78	0.48	20	4492.8	224.64
Frontage Construction								
Grading	Graders	1	6	187	0.41	2	920.04	46.00
Grading	Rubber Tired Dozers	1	6	247	0.4	2	1185.6	59.28
Grading	Tractors/Loaders/Backhoes	1	7	97	0.37	2	502.46	25.12
Paving	Tractors/Loaders/Backhoes	1	7	97	0.37	5	1256.15	62.81
Paving	Cement and Mortar Mixers	4	6	9	0.56	5	604.8	30.24
Paving	Pavers	1	7	130	0.42	5	1911	95.55
Paving	Rollers	1	7	80	0.38	5	1064	53.20
Architectural Coating	Air Compressors	1	6	78	0.48	5	1123.2	56.16

Total Construction Equipment Fuel Consumption (gallons) 35,152.32

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Ani

Date: 10/13/2022 10:06 AM

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6616.8	1.1735	1.0000e-004	1.0000e-005	1.1795
Total		**1.1735**	**1.0000e-004**	**1.0000e-005**	**1.1795**

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	6,617 kWh/yr
Total Over Construction	**5,529 kWh**

Total Construction Schedule	
Start	11/20/2023
End	9/20/2024
Total Calendar Days	305
Years	0.84

Scenario 1 Project Operational Fuel Calculation

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Calculations

VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
HHDT	Aggregated	Aggregated	GAS	9.98880317	229926.8053	61.15993723	3.759434946	864394.867
HHDT	Aggregated	Aggregated	DSL	26140.27083	1299849740	211707.9614	6.139824555	7980849354
LDA	Aggregated	Aggregated	GAS	629406.9139	9026169518	307217.5412	29.3803846	2.65192E+11
LDA	Aggregated	Aggregated	DSL	1959.753877	23467406.53	550.8585655	42.60150972	999746947.2
LDT1	Aggregated	Aggregated	GAS	56644.68754	723077286.3	29861.92548	24.21402085	17508608489
LDT1	Aggregated	Aggregated	DSL	27.91479909	184552.3879	7.565315892	24.39453825	4502070.285
LDT2	Aggregated	Aggregated	GAS	277174.2091	4130284696	172167.2291	23.98995858	99085358773
LDT2	Aggregated	Aggregated	DSL	899.7266747	14146533.68	432.6141314	32.70011923	462593337.9
LHDT1	Aggregated	Aggregated	GAS	24193.88471	292531383.4	21522.2472	13.59204644	3976100149
LHDT1	Aggregated	Aggregated	DSL	19420.71943	235769779.3	11445.23717	20.59981597	4856814065
LHDT2	Aggregated	Aggregated	GAS	3740.394968	43279141.22	3610.229582	11.98791939	518826856.3
LHDT2	Aggregated	Aggregated	DSL	8700.338779	106284875.1	6194.709751	17.15736158	1823568032
MCY	Aggregated	Aggregated	GAS	31064.5051	63559961.88	1520.58781	41.79959979	2656780970
MDV	Aggregated	Aggregated	GAS	216020.6112	3018517564	156155.571	19.33019453	58348531695
MDV	Aggregated	Aggregated	DSL	3144.465844	45103228.43	1903.622076	23.69337328	1068647627
MH	Aggregated	Aggregated	GAS	5910.354464	16942140.69	3480.000918	4.868429949	82481625.15
MH	Aggregated	Aggregated	DSL	2677.341817	7619770.059	734.6301665	10.37225315	79034183.99
MHDT	Aggregated	Aggregated	GAS	1944.487553	33151205.76	6394.504234	5.184327752	171866716
MHDT	Aggregated	Aggregated	DSL	15553.21883	217266211.5	24221.91494	8.969819771	1948838759
OBUS	Aggregated	Aggregated	GAS	532.6451141	7702310.612	1507.886099	5.108018847	39343547.77
OBUS	Aggregated	Aggregated	DSL	277.631711	5792989.212	770.5102623	7.518380345	43553896.23
SBUS	Aggregated	Aggregated	GAS	525.825866	7891167.724	888.012343	8.886326623	70123493.83
SBUS	Aggregated	Aggregated	DSL	657.5906938	4493866.771	612.5565266	7.33624829	32968122.42
UBUS	Aggregated	Aggregated	GAS	146.2127201	6053134.018	1073.421016	5.639105188	34134259.44
UBUS	Aggregated	Aggregated	DSL	0.3117338	9845.875493	0.874762616	11.2554827	110820.0812

Trucks	**Sum of VMT*FE**	**21277728327**
	Total VMT	**2228362263**
	Weighted Average FE (miles/gallon)	**9.5486**
Passenger Cars	**Sum of VMT*FE**	**4.4267E+11**
	Total VMT	**16980950785**
	Weighted Average FE (miles/gallon)	**26.0686**

Total VMT

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:38 AM

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	295.46	295.46	295.46	1,339,396	1,339,396
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	159.97	159.97	159.97	2,911,534	2,911,534
Total	455.43	455.43	455.43	4,250,930	4,250,930

	Annual VMT (miles)	Fuel Consumption	
Truck VMT	2,911,534	**304,918**	**gallons per year**
Passenger Car VMT	1,339,396	**51,380**	**gallons per year**
Total	4,250,930	**356,297**	**gallons per year**

Scenario 2 Project Operational Fuel Calculation

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Calculations

VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
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MDV	Aggregated	Aggregated	GAS	216020.6112	3018517564	156155.571	19.33019453	58348531695
MDV	Aggregated	Aggregated	DSL	3144.465844	45103228.43	1903.622076	23.69337328	1068647627
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OBUS	Aggregated	Aggregated	DSL	277.631711	5792989.212	770.5102623	7.518380345	43553896.23
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SBUS	Aggregated	Aggregated	DSL	657.5906938	4493866.771	612.5565266	7.33624829	32968122.42
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UBUS	Aggregated	Aggregated	DSL	0.3117338	9845.875493	0.874762616	11.2554827	110820.0812

Trucks	**Sum of VMT*FE**	**21277728327**
	Total VMT	**2228362263**
	Weighted Average FE (miles/gallon)	**9.5486**
Passenger Cars	**Sum of VMT*FE**	**4.4267E+11**
	Total VMT	**16980950785**
	Weighted Average FE (miles/gallon)	**26.0686**

Total VMT

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual
Date: 10/21/2022 10:46 AM

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	462.00	462.00	462.00	1,712,815	1,712,815
Manufacturing	28.11	28.11	28.11	511,613	511,613
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	108.17	108.17	108.17	1,968,718	1,968,718
Total	598.28	598.28	598.28	4,193,146	4,193,146

	Annual VMT (miles)	Fuel Consumption	
Truck VMT	2,480,331	**259,759**	**gallons per year**
Passenger Car VMT	1,712,815	**65,704**	**gallons per year**
Total	4,193,146	**325,463**	**gallons per year**

Operation Natural Gas Use

Source: AQ/GHG Appendix, CalEEMod Output

Scenario 1

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual

Date: 10/21/2022 10:38 AM

kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

	Natural Gas Use
General Office Building	54,194
Unrefrigerated Warehouse-Nc	502,416
Total	**556,610 kBTU/yr**

Scenario 2

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual

Date: 10/21/2022 10:46 AM

kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

	Natural Gas Use
General Office Building	20,580
Manufacturing	1,975,720
Unrefrigerated Warehouse-Nc	356,437
Total	**2,352,737**

Operation Electricity Use

Source: AQ/GHG Appendix, CalEEMod Output

Scenario 1

Riverside Palmyrita Avenue Project S1 - Riverside-South Coast County, Annual

Date: 10/21/2022 10:38 AM

Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
General Office Building	145,202
Parking Lot	87,512
Unrefrigerated Warehouse-No Rail	579,903
Total	**812,617 kWh/yr**

Scenario 2

Riverside Palmyrita Avenue Project S2 - Riverside-South Coast County, Annual

Date: 10/21/2022 10:46 AM

Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
General Office Building	55,140
Manufacturing	606,221
Parking Lot	85,225
Unrefrigerated Warehouse-No Rail	411,410
Total	**1,157,996 kWh/yr**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.72	1000sqft	0.02	720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12'x60' single-wide unit (720 sq ft)

Construction Phase - Typical construction trailer for energy use estimates - estimates are included in the operational component of the results

Off-road Equipment - Zeroed out construction equipment

Trips and VMT -

Architectural Coating -

Vehicle Trips - Zeroed out off-site trips

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Area Coating -

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment -

Energy Use -

Water And Wastewater -

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2.0 Emissions Summary

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**3.3400e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**3.3400e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9400e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.3053	1.3053	1.0000e-004	1.0000e-005	1.3121
Mobile	2.5200e-003	4.0000e-003	0.0257	6.0000e-005	6.4700e-003	5.0000e-005	6.5200e-003	1.7300e-003	5.0000e-005	1.7700e-003	0.0000	5.6364	5.6364	3.0000e-004	2.8000e-004	5.7282
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.4500	0.4906	4.2100e-003	1.0000e-004	0.6266
Total	**5.4700e-003**	**4.1200e-003**	**0.0258**	**6.0000e-005**	**6.4700e-003**	**6.0000e-005**	**6.5300e-003**	**1.7300e-003**	**6.0000e-005**	**1.7800e-003**	**0.1766**	**7.3917**	**7.5683**	**0.0127**	**3.9000e-004**	**8.0038**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9400e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.3053	1.3053	1.0000e-004	1.0000e-005	1.3121
Mobile	2.5200e-003	4.0000e-003	0.0257	6.0000e-005	6.4700e-003	5.0000e-005	6.5200e-003	1.7300e-003	5.0000e-005	1.7700e-003	0.0000	5.6364	5.6364	3.0000e-004	2.8000e-004	5.7282
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.4500	0.4906	4.2100e-003	1.0000e-004	0.6266
Total	**5.4700e-003**	**4.1200e-003**	**0.0258**	**6.0000e-005**	**6.4700e-003**	**6.0000e-005**	**6.5300e-003**	**1.7300e-003**	**6.0000e-005**	**1.7800e-003**	**0.1766**	**7.3917**	**7.5683**	**0.0127**	**3.9000e-004**	**8.0038**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	11/20/2023	11/24/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,080; Non-Residential Outdoor: 360; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5200e-003	4.0000e-003	0.0257	6.0000e-005	6.4700e-003	5.0000e-005	6.5200e-003	1.7300e-003	5.0000e-005	1.7700e-003	0.0000	5.6364	5.6364	3.0000e-004	2.8000e-004	5.7282
Unmitigated	2.5200e-003	4.0000e-003	0.0257	6.0000e-005	6.4700e-003	5.0000e-005	6.5200e-003	1.7300e-003	5.0000e-005	1.7700e-003	0.0000	5.6364	5.6364	3.0000e-004	2.8000e-004	5.7282

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	7.01	1.59	0.50	17,101	17,101
Total	7.01	1.59	0.50	17,101	17,101

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.1735	1.1735	1.0000e-004	1.0000e-005	1.1795
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.1735	1.1735	1.0000e-004	1.0000e-005	1.1795
NaturalGas Mitigated	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1318	0.1318	0.0000	0.0000	0.1326
NaturalGas Unmitigated	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1318	0.1318	0.0000	0.0000	0.1326

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	2469.6	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1318	0.1318	0.0000	0.0000	0.1326
Total		**1.0000e-005**	**1.2000e-004**	**1.0000e-004**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.1318**	**0.1318**	**0.0000**	**0.0000**	**0.1326**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	2469.6	1.0000e-005	1.2000e-004	1.0000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1318	0.1318	0.0000	0.0000	0.1326
Total		**1.0000e-005**	**1.2000e-004**	**1.0000e-004**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.1318**	**0.1318**	**0.0000**	**0.0000**	**0.1326**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6616.8	1.1735	1.0000e-004	1.0000e-005	1.1795
Total		**1.1735**	**1.0000e-004**	**1.0000e-005**	**1.1795**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6616.8	1.1735	1.0000e-004	1.0000e-005	1.1795
Total		**1.1735**	**1.0000e-004**	**1.0000e-005**	**1.1795**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9400e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	2.9400e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**2.9300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**2.9300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4906	4.2100e-003	1.0000e-004	0.6266
Unmitigated	0.4906	4.2100e-003	1.0000e-004	0.6266

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.127968 / 0.0784322	0.4906	4.2100e-003	1.0000e-004	0.6266
Total		**0.4906**	**4.2100e-003**	**1.0000e-004**	**0.6266**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.127968 / 0.0784322	0.4906	4.2100e-003	1.0000e-004	0.6266
Total		**0.4906**	**4.2100e-003**	**1.0000e-004**	**0.6266**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1360	8.0400e-003	0.0000	0.3369
Unmitigated	0.1360	8.0400e-003	0.0000	0.3369

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	0.67	0.1360	8.0400e-003	0.0000	0.3369
Total		**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	0.67	0.1360	8.0400e-003	0.0000	0.3369
Total		**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Palmyrita Avenue Warehouse Project Construction Typical Construction Trailer - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B:
Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

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FIRSTCARBONSOLUTIONS™

Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis Palmyrita Avenue Warehouse Project City of Riverside, California

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SECTION 1: INTRODUCTION

This Biological Resources Assessment (BRA) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis was prepared by FirstCarbon Solutions (FCS) to support the proposed Palmyrita Avenue Warehouse Project (proposed project) in the City of Riverside, in Riverside County, California. The purpose of this document is to (1) characterize existing and potentially occurring biological resources on the project site and adjacent areas; (2) summarize relevant local, State, and federal regulations; (3) identify and analyze requirements of the MSHCP and determine project consistency with its goals, objectives, and requirements; (4) identify any biological constraints to development of the proposed project; (5) analyze potential project-related impacts on regulated biological resources; and (6) recommend appropriate measures to mitigate potential impacts on biological resources to less than significant levels.

1.1 - Project Location and Setting

The proposed project is located in the City of Riverside, in Riverside County, California (Exhibit 1). The approximately 13.60-acre project site is located at 1151 Palmyrita Avenue, which is situated on the north side of Palmyrita Avenue and east of Iowa Avenue, corresponding to Assessor's Parcel Numbers (APNs) 247-170-030 and -039 (Exhibit 2). The site is located within the *San Bernadino South, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

1.1.1 - General Setting

The proposed project is located approximately 0.5 mile east of Interstate 215 (I-215) in an area of primarily industrial warehouse development, but also commercial development. The project site is bounded to the east by railroad tracks; Palmyrita Avenue to the south; Iowa Avenue to the west; and railroad tracks, large warehouse, and a vacant lot to the north. The project site is currently used for a small-scale manufacturing facility occupied by BarretteWood USA and Barrette Outdoor Living in an existing warehouse building on the west side of the project site. Two areas of grasslands are located on the western and eastern portions of the project site. The central and eastern portions of the project site consist of paved parking. An inactive railroad spur diagonally transects the eastern side of the project site. Two additional freight rail lines transect the northern and eastern perimeters of the project site. Associated landscaping is located along the southern border of the project site adjacent to Palmyrita Avenue.

1.2 - Project Description

The proposed project involves the construction of two new warehouse buildings (Building 1 and Building 2) under two scenarios: a 100 percent warehousing scenario (Scenario 1; Exhibit 3a), and a 75 percent warehousing and 25 percent manufacturing scenario (Scenario 2; Exhibit 3b). This BRA and MSHCP Consistency Analysis analyzes construction of the warehouse buildings under both scenarios.

1.2.1 - Scenario 1

Under Scenario 1, Building 1 would total 139,667 square feet, and consist of a 132,167 -square-foot warehouse, 4,000-square-foot first floor office, and 3,500-square-foot second floor office(Exhibit 3a). Building 1 would include 125 standard parking stalls, four Americans with Disabilities Act (ADA) standard stalls, two ADA van stalls, one electric vehicle (EV) ADA standard stall, one EV ADA van stall, 16 EV standard stalls, three Clean Air/Vanpool/EV stalls, and 10 parallel parking stalls, for a total of 162 parking stalls.

Building 2 would total 126,091 square feet, and consist of a 116,691 -square-foot warehouse, 5,000-square-foot first floor office, and 4,400-square-foot second floor office. Building 2 would include 126 standard parking stalls, four ADA standard stalls, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 155 stalls. The square footage of both buildings would total 265,758 square feet, with combined parking of 317 parking stalls. Scenario 1 would include 15 trailer parking stalls.

1.2.2 - Scenario 2

Under Scenario 2, Building 1 would total 122,315 square feet, and consist of an 88,736-square-foot warehouse with 30,579 square feet of manufacturing uses and a 3,000-square-foot first floor office(Exhibit 3b). Building 1 would include 168 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and three Clean Air/Vanpool/EV stalls, for a total of 195 stalls.

Building 2 would total 122,127 square feet and consist of an 88,595-square-foot warehouse with 30,532 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 2 would include 159 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 188 stalls. The square footage of both buildings would total 244,442 square feet, with combined parking of 383 parking stalls.

Circulation

Access to the site would be provided via two driveways, one 40-foot driveway and one 30-foot driveway along Palmyrita Avenue, and one 35-foot driveway along Iowa Avenue.

The main freight truck entrance/exit to the proposed warehouse would be from Palmyrita Avenue; the main passenger vehicle entrance would be from Iowa Avenue. It is conservatively assumed the building would operate 24 hours a day, 7 days per week, with the exception of some holidays. The proposed project is anticipated to employ no more than 236 employees. The proposed project would include roadway and frontage improvements along Palmyrita Avenue and Iowa Avenue, as well as the construction of a raised median along Iowa Avenue. Improvements to Palmyrita Avenue and Iowa Avenue would total approximately 0.56 acre.

Water Quality Management Plan

The proposed project would include two Low Impact Development Best Management Practice (LID BMP), generally one each for Building 1 and Building 2, along with CDS clarifiers for pre-treatment. Each bioretention/biotreatment system would be situated west of each building and would capture and treat runoff from the project site.

The proposed project would also implement source control BMPs to mitigate potential runoff pollutants from landscaping/outdoor pesticide use, refuse areas, condensate drain lines, and plazas, sidewalks, loading docks and parking lots. Proposed source control BMPs include permanent structural BMPs such as implementing landscaping which maximizes groundcover and promotes infiltration, minimizes use of fertilizers and utilizes plants that are tolerant of saturated soil conditions. Refuse areas will be maintained and emptied by a qualified contracted waste management company, or the City. Equipment condensate lines would drain to the sanitary sewer. Operational source control BMPs include the proper disposal of green waste from landscaping maintenance and the provision of Pest Management Information, regular inspection and maintenance of refuse receptacles, and regular sweeping of plazas, sidewalks, and parking lots to prevent debris from entering the storm drain system.

Landscaping

The proposed project would include 84,581 square feet of landscaping under Scenario 1 and 104,694 square feet of landscaping under Scenario 2. Landscaped areas would occur around the perimeter of the site and throughout the parking areas. Landscaping would consist of a variety of trees, shrubs, and groundcover, including Blue Palo Verde, Desert Willow, Chitalpa, Canary Island Pine, Chinese Pistache, Coast Live Oak, African Sumac, Brisbane Box, street trees, Pineapple Guava, Dwarf Bottle Brush, Silverleaf cassia, Dwarf Dianella, Dianella, Fortnight Lily, Texas Privet, Rosemary, Autumn Sage, Mexican Sage, Coast Rosemary, Dwarf Coast Rosemary, Blue Flame Agave, Blue Glow Agave, Coral Aloe, Red Yucca, Dwarf Acacia, Dwarf Coyote Bush, Prostrate Natal Plum, and Prostrate Rosemary .Landscaping for the proposed project would be designed in accordance with the State mandated Assembly Bill 1881 Water Efficient Landscape Ordinance and the City of Riverside Municipal Code Chapter 19.570 – Water Efficient Landscaping and Irrigation.[1,2]

Building Elevations and Design

The maximum building height of the proposed buildings would be 42 feet for Scenario 1 and 41 feet for Scenario 2. Buildings would be composed of tilt-up concrete material, with blue glass, medal cladding, clear anodized mullions, and include muted earth tones such as bronze, white, gray, and beige. The design of the proposed project would be consistent with the Riverside Citywide Design

[1] California Department of Water Resources. 2023. Model Water Efficiency Landscape Ordinance. Website: https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance. Accessed January 18, 2023.

[2] City of Riverside. 2022. City of Riverside Code of Ordinances, Chapter 19.570 Water Efficient Landscaping and Irrigation.

Guidelines[3] and Good Neighbor Guidelines for Industrial Facilities.[4] Rooftop mechanical units, including heating, ventilation, and air conditioning (HVAC) systems, would be screened away from public view from adjacent streets.

Walls/Fences

The proposed project would include a retaining wall at the southwest, northwest, and southeast portions of the site, as well as within some portions of the site. This retaining wall would be 3-feet high when visible from the public right-of-way and 6-feet high when not visible from the public right-of-way. An 8-foot high tubular steel fence is proposed along the northern portion of the site, which would screen the project from the existing railroad tracks adjacent to the site. a 14-foot high tilt up concrete screen wall is proposed at the northeast corner of the site, along with an 8-foot high tilt up concrete screen wall to the east, adjacent to the railroad tracks that abut the site to the east. In addition to the 8-foot high concrete screen wall, 14-foot high landscaping would further screen the site from the adjacent railroad.

8-foot high metal gates would also be located within the site to provide controlled access to various areas of the project.

Outdoor Storage of Trucks and Screening

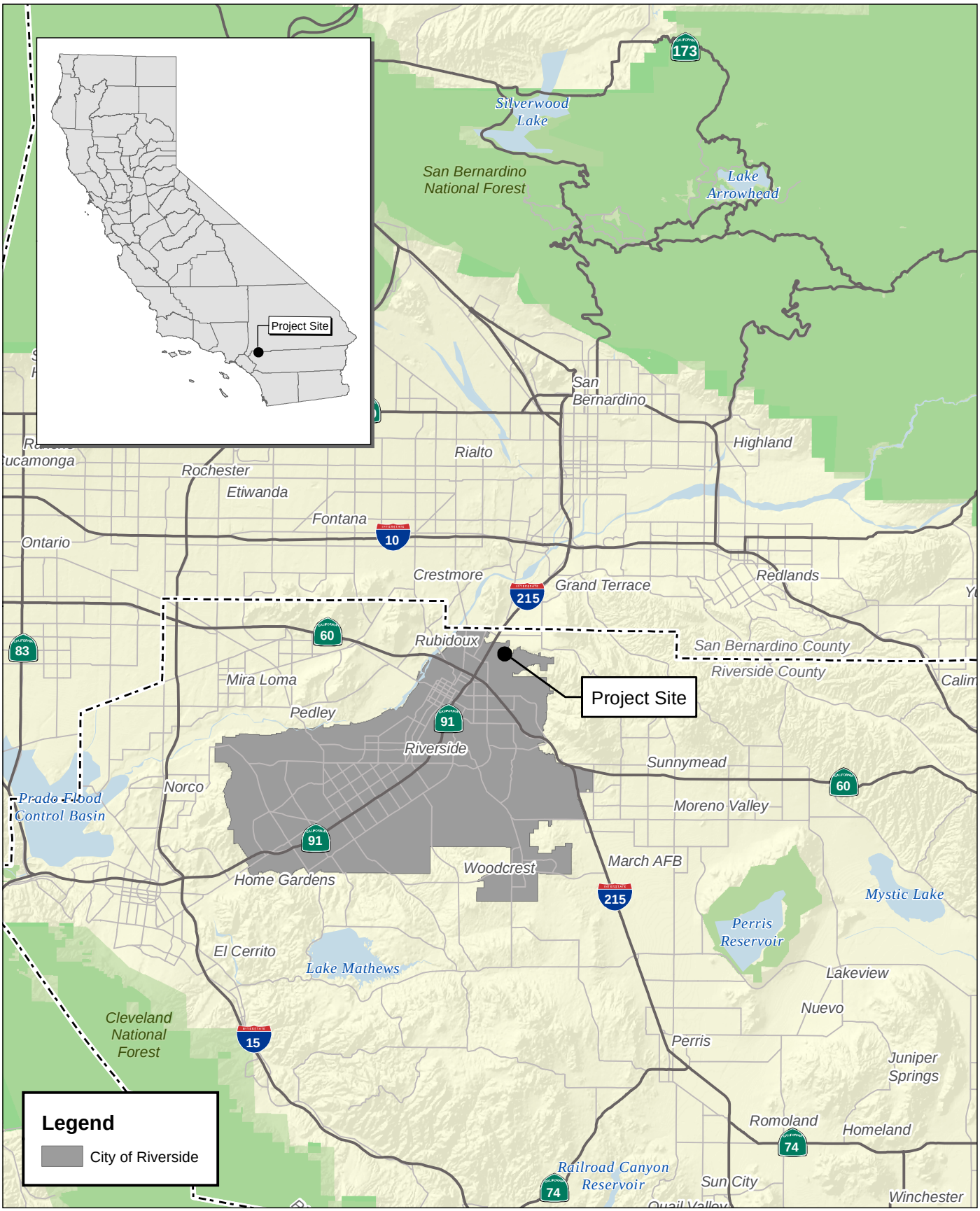
As mentioned above, a mix of fencing, walls, and landscaping would be located around the site perimeter to screen the proposed project from the adjacent roadways and railroad.

Construction and Phasing

The following construction schedule was assumed for the purposes of this environmental analysis. The proposed project would be constructed in a single phase beginning in the fourth quarter of 2023. Demolition and grading would occur within the first month of construction, and the proposed project is expected to be operational in the third quarter of 2024.

[3] City of Riverside. 2019. Riverside Citywide Design Guidelines. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/Citywide_Design_and_Sign_Guidelines_web%20version_Amended%2001-15-19_1.pdf. Accessed February 10, 2023.

[4] City of Riverside. 2020. Good Neighbor Guidelines for Industrial Facilities. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/2021/Good%20Neighbor%20Guidelines.pdf. Accessed February 10, 2023.



Source: Census 2000 Data, The California Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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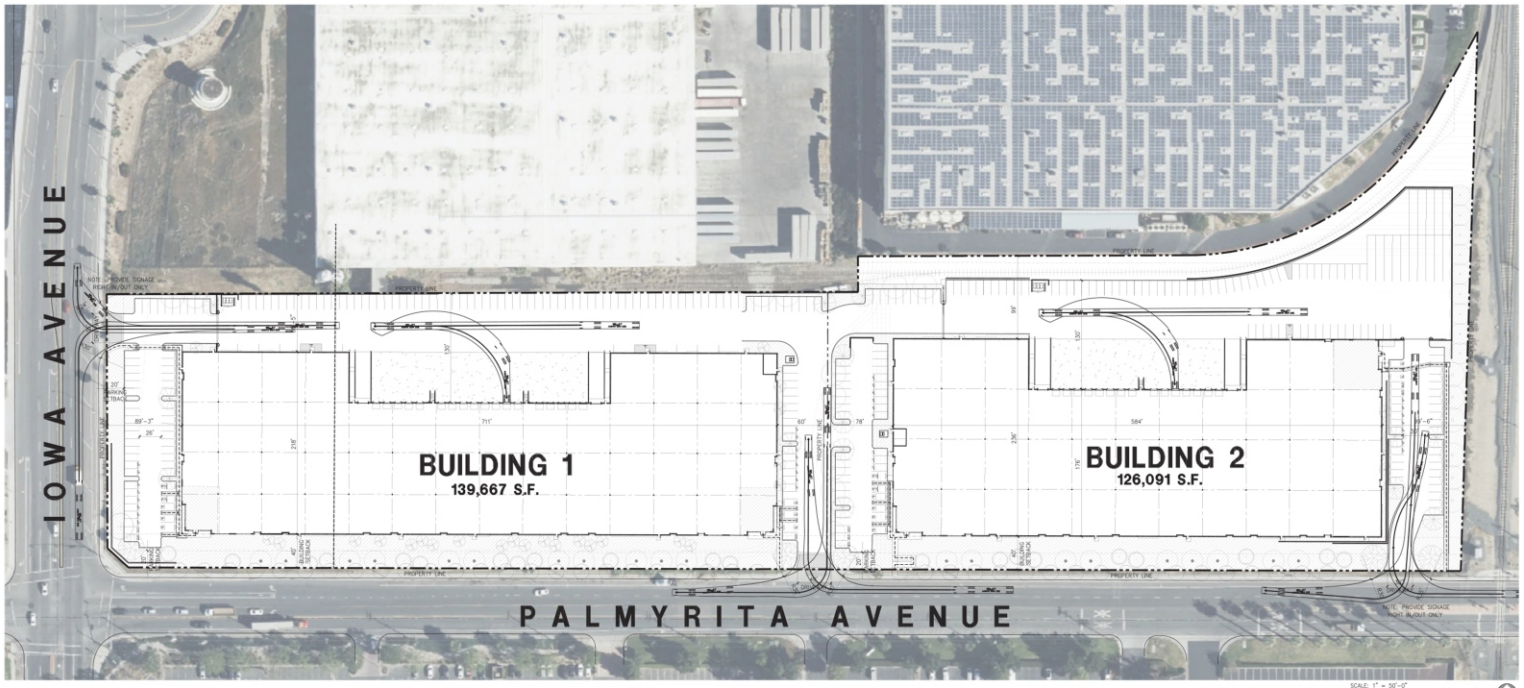
Source: Bing Aerial Imagery.

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1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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MASTER SITE PLAN (A)



CONCEPTUAL RENDERED VIEW (B)

TABULATION

	BLDG 1	BLDG 2	TOTAL
SITE AREA			
in sq. ft.	282,614	310,809	593,423 s.f.
in acres	6.49	7.14	13.62 ac
BUILDING AREA			
Office - 1st Floor	4,000	5,000	9,000 s.f.
Office - 2nd Floor	3,500	4,400	7,900 s.f.
Warehouse	132,167	116,691	248,858 s.f.
TOTAL	139,667	126,091	265,758 s.f.
COVERAGE	49.4%	40.6%	44.8%
AUTO PARKING REQUIRED			
Office: 1/250 s.f.	30	38	68 stalls
Ware: 1/1,000 s.f.	132	117	249 stalls
TOTAL	162	155	317 stalls
AUTO PARKING PROVIDED			
Standard (9' x 18')	125	126	251 stalls
Accessible Standard (9' x 18')	4	4	8
Accessible Van (12' x 18')	2	2	4
EV Accessible-Standard (9' x 18'	1	1	2
EV Accessible Van (12' x 18')	1	1	2
EV Standard (9' x 18')	16	16	32
Clean Air/Vanpool/EV	3	5	8
Parallel (9.5' x 25')	10	0	10 stalls
TOTAL	162	155	317 stalls
TRAILER PARKING PROVIDED	0	15	15 stalls
ZONING ORDINANCE FOR CITY:			
BMP- Business and Manufacturing Park Zone			
Specific Plan Overlay Zone (Hunter Business Park)			
MAXIMUM BUILDING HEIGHT ALLOWED			
Allow-tall - 40'			
Actual - 40'			
MAXIMUM FLOOR AREA RATIO			
FAR- 1.50			
LANDSCAPE REQUIRED			
Percentage -	5% of parking lot area		
LANDSCAPE PROVIDED			
Percentage	14.5%	14.2%	14.3%
s.f.	40,913	43,868	84,781 s.f.
SETBACK			
Front - 40' (BLDG over 30'), 20' (BLDG 30' or less)			
Side/Rear - 0'			
Landscape - 20' (arterial)			

AERIAL MAP



SITE LEGEND

LANDSCAPED AREA
AC. PAVING – SEE "C" DRWGS. FOR THICKNESS
CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
24' WIDE FIRE LANE FIRE DEPT STANDARD
STANDARD PARKING STALL (9' X 18')
HANDICAP PARKING STALL (9' X 18')
CLEAN AIR/VANPOOL/EV CONDUIT STUB FOR FUTURE EV
CLEAN AIR/ VANPOOL/EV PARKING CONDUIT STUB FOR FUTURE EV
TRAILER PARKING (10' X 57')
PROPERTY LINE
ACCESSIBLE PATH OF TRAVEL

PROPERTY OWNER

DEDEAUX PROPERTIES
100 WILTSHIRE BLVD. SUITE 250
SANTA MONICA, CA 90401
CONTACT: BENJAMIN HORNING
PHONE: 323-981-8226

ADDRESS OF THE PROPERTY

NORTHEAST CORNER OF IOWA AVE. AND PALMYRITA AVENUE

ASSESSOR'S PARCEL NUMBER

0247-170-030
0247-170-039

SCOPE OF WORK

(2) INDUSTRIAL BUILDINGS TOTALING APPROXIMATELY 265,758 SF ON APPROXIMATELY (13.6) ACRES OF LAND

ZONING

BUSINESS AND MANUFACTURING PARK (BMP)

ADJACENT USES

BUSINESS AND MANUFACTURING PARK (BMP) ON ALL SIDES

APPLICANT

DEDEAUX PROPERTIES
100 WILTSHIRE BLVD. SUITE 250
SANTA MONICA, CA 90401
CONTACT: BENJAMIN HORNING
PHONE: 323-981-8226

APPLICANT'S REPRESENTATIVE

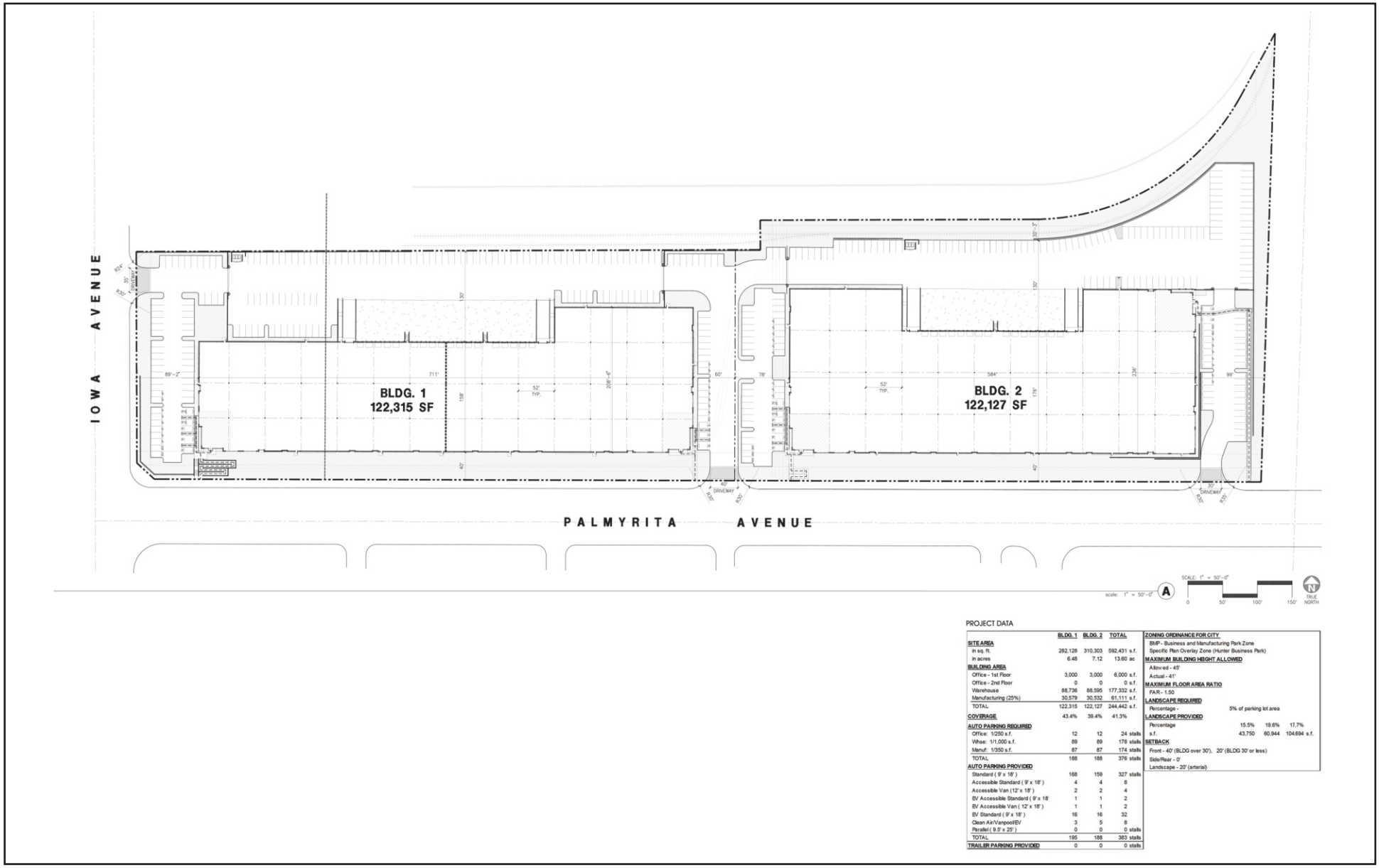
HPA, INC.
18831 BARDEEN AVE. SUITE 100
IRVINE, CA 92612
TEL: 949-863-1700
ATTN: INKSN KIM

Source: HPA, Inc. 02/10/2023.

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Exhibit 3a
Scenario 1 Site Plan - 100% Warehouse

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PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL
SITE AREA			
in sq. ft.	282,128	310,303	592,431 s.f.
in acres	6.48	7.12	13.60 ac
BUILDING AREA			
Office - 1st Floor	3,000	3,000	6,000 s.f.
Office - 2nd Floor	0	0	0 s.f.
Warehouse	88,736	88,595	177,332 s.f.
Manufacturing (25%)	30,579	30,532	61,111 s.f.
TOTAL	122,315	122,127	244,442 s.f.
COVERAGE	43.4%	39.4%	41.3%
AUTO PARKING REQUIRED			
Office: 1/250 s.f.	12	12	24 stalls
Whse: 1/1,000 s.f.	89	89	178 stalls
Manuf: 1/350 s.f.	87	87	174 stalls
TOTAL	188	188	376 stalls
AUTO PARKING PROVIDED			
Standard (9' x 18')	168	159	327 stalls
Accessible Standard (9' x 18')	4	4	8
Accessible Van (12' x 18')	2	2	4
EV Accessible Standard (9' x 18'	1	1	2
EV Accessible Van (12' x 18')	1	1	2
EV Standard (9' x 18')	16	16	32
Clean Air/Vanpool/EV	3	5	8
Parallel (9.5' x 25')	0	0	0 stalls
TOTAL	195	188	383 stalls
TRAILER PARKING PROVIDED	0	0	0 stalls

ZONING ORDINANCE FOR CITY			
BMP - Business and Manufacturing Park Zone			
Specific Plan Overlay Zone (Hunter Business Park)			
MAXIMUM BUILDING HEIGHT ALLOWED			
Allowed - 45'			
Actual - 41'			
MAXIMUM FLOOR AREA RATIO			
FAR - 1.50			
LANDSCAPE REQUIRED			
Percentage -	5% of parking lot area		
LANDSCAPE PROVIDED			
Percentage	15.5%	19.6%	17.7%
s.f.	43,750	60,944	104,694 s.f.
SETBACK			
Front - 40' (BLDG over 30'), 20' (BLDG 30' or less)			
Side/Rear - 0'			
Landscape - 20' (arterial)			

Source: HPA, Inc. 02/10/2023.

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Exhibit 3b
Scenario 2 Site Plan - 75% Warehouse and 25% Manufacturing

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Endangered Species Act. Section 9 of the Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

2.1.3 - Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

2.1.4 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or greater than 0.5 acre or greater than 0.5 acre of waters of the United States. A project that results in impacts to less than 0.5 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits if it is consistent with the standard permit conditions. The USACE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts on endangered species.

Section 401

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following California Environmental Quality Act (CEQA) Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, natural community conservation plan, or other approved local, regional, or State Habitat Conservation Plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State listed endangered and threatened species. CESA requires State agencies to consult with the CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to

authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA, and Fish and Game Code Section 2081 established an incidental take permit program for State listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500—5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections

may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State listed species are fully protected under the mandates of CESA. "Take" of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)).

2.2.5 - California Native Plant Society Rare Plant Rankings

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere

- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed
- **Rank 4:** Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations.[5]

2.3 - Regional and Local

2.3.1 - Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP serves as a multijurisdictional Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the Endangered Species Act and a Natural Communities Conservation Plan pursuant to Fish and Game Code Section 2081.1 that focuses on the conservation of species and habitats in western Riverside County. The MSHCP allows permittees to obtain take of threatened, endangered, and rare plant and animal species covered by the MSHCP. Regulation of take of species is authorized by the USFWS and the CDFW for lawful actions (e.g., public and private projects) in exchange for the assembly and management of a conservation reserve system. The MSHCP covers take of 146 species in the plan area, including 32 that are State and/or federally listed.

The MSHCP area encompasses approximately 1.26 million acres and includes all unincorporated land in Riverside County west of the crest of the San Jacinto Mountains to the Orange County line, inclusive of the jurisdictional areas of the cities of Eastvale, Jurupa Valley, Wildomar, Menifee, San Jacinto, Hemet, Perris, Calimesa, Beaumont, Banning, Moreno Valley, Riverside, Corona, Norco, Canyon Lake, Lake Elsinore, Murrieta, and Temecula. Conservation areas that comprise the reserve system will be assembled from Criteria Area cells that consist of 0.75-section cells of approximately 160 acres, each with specific criteria for conservation.

The Conservation Areas that comprise the reserve system will total 500,000 acres when complete, which is projected by 2028. Of the 500,000 acres targeted for conservation, 347,000 were in existing open spaces in Public/Quasi-Public (PQP) Lands at the time the MSHCP was adopted in 2003. These lands are under ownership or management of government agencies and their development is not likely. The County and City permittees are responsible for assembling the remaining 153,000 acres in the reserve system by 2028 through implementing the MSHCP during the development and entitlement process.

[5] California Native Plant Society (CNPS). 2020. Considerations for Including CRPR 4 Plant Taxa in CEQA Biological Resource Impact Analysis. Sacramento, CA. 21 January 2020.

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SECTION 3: METHODS

3.1 - Literature and Database Reviews

This literature review provides a baseline from which to evaluate potential project impacts on biological resources on the project site and in the surrounding area.

3.1.1 - Existing Documentation

As part of the literature review, an FCS Biologist examined existing environmental documentation for the project site and vicinity. This documentation included literature pertaining to the habitat requirements of special-status species with the potential to occur in the project vicinity; and federal register listings, protocols, and species data provided by the USFWS and CDFW.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current USGS 7.5-minute topographic quadrangle map(s)and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.[6] Information obtained from the topographic maps included elevation, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking, and Environmental Results System (WATERS).[7] Aerial photographs provided a perspective of the current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area.[8] These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish whether the soil conditions on-site are suitable for any special-status plant species.

3.1.4 - Special-status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the USFWS Information for

[6] United States Geological Survey (USGS). 2022. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed July 21, 2022.

[7] United States Environmental Protection Agency (EPA). 2022. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed July 21, 2022.

[8] Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed July 21, 2022.

Planning and Consultation (IPaC) database,[9] the CNDDB, and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California.[10,11] The CNDDB search focused on species records within 5 and 10 miles of the project site. The CNPSEI search focused on records from the *San Bernardino South,* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles. The CNDDB Biogeographic Information and Observation System (BIOS 5) was used to determine distances between species occurrences and the project site.[12]

The potential for occurrence on the project site was assessed for each of the special-status species identified in the database searches. The potential for occurrence was assessed based on conditions on the project site, habitat requirements of special-status species, and number of recent (< 25 years old) occurrences in the project vicinity.

3.1.5 - Trees and Native Vegetation

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed applicable City and County ordinances pertaining to tree and native vegetation preservation and protection and ascertained whether measures or permits are required to remove, replace, or transplant protected trees or native vegetation.

3.1.6 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed EPA WATERS and aerial photography to identify potential natural drainage features and water bodies.[13] In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to State and federal regulatory authority as waters of the United States and/or State. A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities to aid in determining whether a formal delineation of waters of the United States or State is necessary.

3.1.7 - MSHCP Information Map

As part of the MSHCP Consistency Analysis, an FCS Biologist reviewed the Regional Conservation Authority (RCA) MSHCP Information Map[14] to assess species survey and conservation requirements for the parcels that comprise the project site.

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[9] United States Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed July 21, 2022.

[10] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.

[11] California Native Plant Society (CNPS). 2022. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed July 21, 2022.

[12] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.

[13] United States Environmental Protection Agency (EPA). 2022. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed July 21, 2022.

[14] Regional Conservation Authority (RCA). 2022. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed July 21, 2022.

3.2 - Field Surveys

3.2.1 - Survey Personnel

A general biological survey and vegetation community mapping of the project site was performed on July 26, 2022, by FCS Senior Biologist Michael Tuma, PhD (brief resume presented in Appendix A).

3.2.2 - General Biological Survey

The objective of the general biological survey was to ascertain general site conditions and identify whether existing vegetation communities provide suitable habitat for special-status plant or wildlife species. During this survey, the Biologist walked and drove the project site and characterized and mapped vegetation communities, identified and recorded plants and wildlife observed on-site, and recorded evidence of wildlife habitats, including wildlife corridors, nests, dens, or burrows. Special-status or unusual biological resources identified during the literature review were ground-truthed during the field survey for mapping accuracy. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species.

Vegetation Communities and Plants

Common plant species observed during the general biological survey were identified by visual characteristics and morphology in the field and recorded in a field notebook and on field maps. Uncommon and fewer familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.[15,16] Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.[17] Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation community types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.0. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat types are based on the Manual of California Vegetation (MCV) and cross-referenced with the CDFW Natural Communities List.[18,19]

Wildlife

Wildlife species detected during the general biological survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to have the potential to occur within the project site.[20] Appropriate field guides were

[15] Jepson Flora Project (eds.) 2022. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/. Accessed on July 21, 2022.
[16] Calflora. 2020. Calflora: Information on California plants for education, research, and conservation. Website: http://www.calflora.org/. Accessed on July 21, 2022.
[17] Baldwin, B., et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).
[18] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.
[19] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed July 21, 2022.
[20] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.

used to assist in species identification during surveys, such as Peterson, Reid, and Stebbins.[21,22,23] Online resources such as eBird and California Herps were also consulted, as necessary.[24,25]

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated "islands" of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the general biological survey. The scope of the biological resource assessment did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Rather, the focus of this study was to determine whether a change in land use at the project site could have significant impacts on the regional movement of wildlife. Conclusions are based on the information compiled during the literature review, including aerial photographs, USGS topographic maps, and resource maps for the vicinity; the field survey; and professional experience with the desired topography, habitat, and resource requirements of the special-status species potentially utilizing the project site and vicinity.

3.2.3 - Habitat Assessment for Burrowing Owl

Concurrent with the general biological survey, the FCS Biologist performed a habitat assessment for burrowing owls. The FCS Biologist walked the project site and scanned adjacent, undeveloped lands within 500 feet of the project boundary, characterized and mapped vegetation communities, and searched for suitable habitat for burrowing owls, including open habitats with low-growing and/or spaced vegetation and burrows or other potential cover (e.g., concrete slabs, pipes). No burrowing owls were observed during the survey.

[21] Peterson, T.R. 2010. A Field Guide to Birds of Western North America, 4th Edition. Boston: Houghton Mifflin Harcourt.
[22] Reid, F. 2006. A Field Guide to Mammals of North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.
[23] Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Boston: Houghton Mifflin Harcourt.
[24] eBird. 2022. Online bird occurrence database. Website: http://ebird.org/content/ebird/. Accessed July 21, 2022.
[25] California Herps. 2022. A Guide to the Amphibians and Reptiles of California. Website: http://www.californiaherps.com/. Accessed July 21, 2022.

SECTION 4: RESULTS

This section summarizes the results of the literature search and general biological reconnaissance survey. The results of the sensitive biological resources database reviews and an analysis for the potential for occurrence of these resources on the project site are presented in Section 5. An analysis of project requirements for MSHCP consistency is presented in Section 6.

4.1 - Literature Review

4.1.1 - Environmental Setting

The project site is situated on an alluvial fan approximately 2.4 miles east of the Santa Ana River channel and approximately 0.6 mile north of the northwestern extent of the Box Springs Mountains. Spring Brook, a tributary of the Santa Ana River, is located approximately 0.3 mile north of the project site. Elevation at the project site ranges between approximately 960 feet (293 meters) above mean sea level on the east side of the site to approximately 940 feet (287 meters) on the west side of the site.

Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) mapped two soil types (Buren fine sandy loam, 2 to 8 percent slopes and Greenfield sandy loam, 2 to 8 percent slopes) on the project site and off-site roadway and frontage improvement areas (Exhibit 4). The Buren series soils are well-drained, yellowish brown, moderately alkaline, sandy loams and fine sandy loams. The Greenfield series soils are pale brown, slightly acid, coarse sandy loam. These soil types occur on gently to strongly sloping alluvial fans and terraces.

4.2 - Biological Surveys

FCS Senior Biologist Michael Tuma, PhD conducted a general biological survey of the project site on July 26, 2022, between approximately 9:00 a.m. to 10:15 a.m. Weather conditions during the field surveys were hazy, with an average temperature around 76°F (degrees Fahrenheit), and wind speeds between 0 and 3 miles per hour (mph).

4.2.1 - Vegetation Communities and Land Use

The project site consists predominantly of developed lands containing a warehouse and paved parking lot. Portions of the project site on the east and west sides are undeveloped and support non-native grassland vegetation. The northern side of the project is bound by railroad tracks and neighboring development and the and eastern side is bound by railroad tracks. The southern and western sides of the project are bound by Palmyrita Avenue and Iowa Avenue, respectively. The project site is surrounded by urbanized development, with the exception of a small, undeveloped area north of the western portion of the project site. The vegetation communities and land cover types recorded on and adjacent to the project site are described below. A map showing vegetation communities and land cover types is presented in Exhibit 5. Photographs are presented in Appendix B.

Wild Oats and Annual Brome Grasslands

Two areas on the project site and an adjacent area that is off-site but within 500 feet of the project boundary are undeveloped, disturbed areas that are vegetated primarily in non-native annual species (Exhibit 4) The vegetation community in these areas is best described as wild oats and annual brome grasslands (MCV: *Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance). Characteristic species in this community typically are dominated by non-native, annual grasses such as oat grasses (*Avena barbata* and/or *Avena fatua*), brome grasses (*Bromus diandrus*, *Bromus hordeaceus* and/or Bromus rubens), and wall barley (*Hordeum murinum*). These grass species may be co-dominant with other native or non-native, annual species in the herbaceous layer. Emergent trees and shrubs may be present at low cover.

Species observed in the wild oats and annual brome grasslands on and adjacent to the project site were dominated by wall barley (*Hordeum murinum*), red brome (*Bromus rubens*), common wild oat (*Avena fatua*), common fiddleneck (*Amsinckia intermedia*), and redstem filaree (*Erodium cicutarium*). Other species observed in this community included Mediterranean grass (*Schismus barbatus*), Australian saltbush (*Atriplex semibaccata*), Russian thistle (*Kali tragus*), white horehound (*Marrubium vulgare*), shortpod mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca seriola*), Malta thistle (*Centaurea melitensis*), Canadian horseweed (*Erigeron canadensis*), annual sunflower (*Helianthus annuus*), salt grass (*Distichlis spicata*), cheeseweed (*Malva neglecta*), and puncture vine (*Tribulus terrestris*).

Developed

Developed areas are characterized by urbanization that includes a combination of a developed and hardscaped features, landscaped and manicured vegetation, and disturbed areas with bare soil surfaces supporting ruderal vegetation. Developed and hardscaped areas include buildings, paved roads, parking lots, and sidewalks. Manicured, landscaped areas typically feature street/shade trees, lawns, and shrubs with little or no exposed soil substrates. Irrigation and fertilization of landscaped areas allow for tropical and other non-native and ornamental species to flourish in urban areas. Trees are often grown in a spaced pattern with an open understory, and lawns are typically one species maintained at a continuous, uniform height. Shrubs are grown as spaced individuals or in tight rows that are hedged. Developed areas often include areas with bare soil surfaces and weedy vegetation primarily composed of non-native, annual plant species. Developed areas provide habitat to a low diversity of wildlife that are tolerant of human-modified environments.

Most of the project site and adjacent areas within 500 feet of the project boundary, including the off-site roadway and frontage improvement areas are developed and include industrial and commercial developments. On the project site, urbanized developments include an existing warehouse and associated offices, an expansive parking area, sidewalks, and a railroad spur. Landscaped vegetation is located on the southern boundary of the project along Palmyrita Avenue and adjacent to the warehouse. The landscaped areas of the project site contain ornamental trees, shrubs, and annual grasses and herbs, including Mexican fan palm (*Washingtonia robusta*), camphor tree (*Cinnamomum camphora*), guava (*Psidium guajava*), Queensland brush box (*Lophostemon confertus*), sweetgum (*Liquidambar styraciflua*), carrotwood (*Cupaniopsis anacardioides*), coast live oak (*Quercus agrifolia*), Fremont cottonwood (*Populus fremontii*), bottlebrush (*Callistemon spp.*),

crepe myrtle (*Lagerstroemia* sp.), bougainvillea (*Bougainvillea* sp.), hibiscus (*Hibiscus* sp.), fountain grass (*Pennisetum setaceum*), society garlic (*Tulbaghia violacea*), and Bermuda grass (*Cynodon dactylon*). Ruderal vegetation was observed in landscaped areas, edges of parking areas, along the railroad tracks, and in a concrete-lined wet ditch, where species included a mixture of herbaceous and woody vegetation, including common dandelion (*Taraxacum officinale*), black medic (*Medicago lupulina*), broadleaf plantain (*Plantago major*), marsh parsley (*Apium graveolens*), buttercup oxalis (*Oxalis pes-caprae*), rabbitsfoot grass (*Polypogon monspeliensis*), tall flatsedge (*Cyperus eragrostis*), fringed willowherb (*Epilobium ciliatum*), mulefat (*Baccharis salicifolia*), Goodding's willow (*Salix gooddingii*), shortpod mustard, Malta thistle (*Centaurea melitensis*), telegraph weed (*Heterotheca grandiflora*), Russian thistle, annual sunflower, tree tobacco (*Nicotiana glauca*), brittlebush (*Encelia farinosa*), stinkwort (*Dittrichia graveolens)*, tamarisk (*Tamarix spp.*), Menzies' goldenbush (*Isocoma menziesii*), palo verde (*Parkinsonia spp.*), tree of heaven (*Ailanthus altissima*), fringed twinevine (*Funastrum cynanchoides*), Italian thistle (*Carduus pycnocephalus*), white horehound, California buckwheat (*Eriogonum fasciculatum*), prickly lettuce, spotted spurge (*Euphorbia maculata*), Canada horseweed, hairy fleabane (*Erigeron pulchellus*), jungle rice (*Echinochloa colona*), and candy grass (*Eragrostis cilianensis*).

4.2.2 - Wildlife

The vegetation community and land cover types on the project site provide habitat for wildlife species that are tolerant of urbanized areas. As well, the anthropogenic features on the project site (buildings and ornamental trees) could provide habitat for several wildlife species. Wildlife activity during the general biological reconnaissance survey was moderate and consisted primarily of avian species. Evidence of other species was evident in tracks, scat, and other signs. The following discussions regarding the wildlife species observed within the project site are organized by taxonomic group. Each discussion contains representative examples of a particular taxonomic group either observed or expected to occur on-site. No special-status wildlife species were observed during the survey.

Invertebrates

No invertebrates were observed on-site, but those that likely occur at the site year-round or during seasonal pulses include several species of beetles, flies, ants, bees, wasps, moths and butterflies, and spiders and tarantulas, among others.

Amphibians and Fish

No amphibian or fish species were observed on-site during the general biological reconnaissance surveys. Because of the urbanized nature of the project site and vicinity, and a lack of permanent or sufficient water sources, fish and amphibians are not expected to occur on-site.

Reptiles

Two reptiles, western side-blotched lizard (*Uta stansburinia*) and western fence lizard (*Sceloporus occidentalis*), were observed on the project site.

Birds

Avian activity was moderate during the field survey. Dr. Tuma identified common native and non-native species, including mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), Anna's hummingbird (*Calypte anna*), northern mockingbird (*Mimus polyglottos*), American kestrel (*Falco sparverius*), and lesser goldfinch (*Spinus psaltria*). Other bird species expected to occur on-site include common species typical of the region and tolerant of anthropogenic activities and features, such as Cooper's hawk (*Accipiter cooperi*), California scrub jay (*Aphelocoma californica*), and American crow (*Corvus brachyrhynchos*), and non-native species such as Eurasian collared dove (*Streptopelia decaocto*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*). Birds may find nesting platforms throughout the project site on bare ground, in grasses, shrubs, and trees, and on buildings.

Mammals

One mammal species, desert cottontail (*Sylvilagus audubonii*), was directly observed on-site during the field survey. Burrows of California ground squirrels (*Otospermophilus beecheyi*) and valley pocket gophers (*Thomomys bottae*) were observed in areas vegetated in grasslands.

4.2.3 - Wildlife Movement Corridors

The majority of the project site consists of developed lands, including an existing warehouse and paved parking area. The project site is also surrounded by urbanized areas, roads, and highways that limit wildlife movement through the project site. The project site itself does not serve as a wildlife movement corridor.

4.3 - Burrowing Owl Habitat Assessment

Dr. Tuma mapped burrowing owl habitat on the project site and within 500 feet of the project on July 26, 2022, during the general biological assessment. Burrowing owl habitat was mapped in the western and eastern portions of the project site and an area north of the western extent of the project site and within 500 feet of the site (Exhibit 5). These portions of the project site and the adjacent area contain suitable wild oats and annual brome grasslands habitat with low-growing vegetation. At the time of the surveys the area had been recently mowed or disked and the wild oats and annual brome grasslands were in early recovery stages. There were several California ground squirrel burrows observed in these areas of the project site. No burrowing owls were observed during the survey.



Source: Bing Aerial Imagery. Goodman & Associates, August 2022. USDA Soils Data Mart, Western Riverside County Area.

FIRSTCARBON SOLUTIONS™

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Exhibit 4
Soils Map

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DEDEAUX PROPERTIES, INC.
PALMYRITA AVENUE WAREHOUSE PROJECT
BIOLOGICAL RESOURCES ASSESSMENT AND WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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Source: Bing Aerial Imagery. Goodman & Associates, August 2022.

FIRSTCARBON SOLUTIONS™

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Exhibit 5
Vegetation Community/Land Cover Map

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DEDEAUX PROPERTIES, INC.
PALMYRITA AVENUE WAREHOUSE PROJECT
BIOLOGICAL RESOURCES ASSESSMENT AND WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES DATABASE REVIEWS

The following section discusses the results of the database reviews for sensitive biological resources and an analysis of the potential for these resources to occur within the project site based on existing biological conditions on and adjacent to the site.

5.1 - Sensitive Natural Communities

Sensitive natural communities are vegetation communities or special wildlife habitats that are rare or occur in limited distributions or provide specific habitat requirements for special-status plant or wildlife species. The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities.[26] The CNDDB identified four sensitive natural communities that are known to occur within 5 miles of the project site: Southern California Arroyo Chub, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, and Southern Sycamore Alder Riparian Woodland. One sensitive natural community, Riversidian Alluvial Fan Sage Scrub, has been recorded in the CNDDB between 5 and 10 miles from the project site.[27] These communities are not present on or adjacent to the project site.

5.2 - Special-status Plant Species

Twenty-seven special-status plant species have been recorded within 10 miles of the project site in the CNDDB[28,29] or on the nine quadrangle search area of the CNPSEI[30] (Appendix C, Table 1). Table 1 in Appendix C includes the species' status, required habitat, and a summary analysis of the potential for each of these species to occur on the project site. The potential for occurrence of a species was based on presence of suitable habitats, soil types, and proximity and number of occurrences recorded in the CNPSEI and CNDDB.[31,32,33] Previous and significant surface disturbances evident throughout the project site and the presence and abundance of several non-native, invasive, annual plant species there have likely lowered the potential for persistence and occurrence of populations of many special-status plant species.

[26] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Accessed July 21, 2022.
[27] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.
[28] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.
[29] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.
[30] California Native Plant Society (CNPS). 2022. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed July 21, 2022.
[31] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.
[32] California Native Plant Society (CNPS). 2022. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed July 21, 2022.
[33] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.

5.2.1 - Potential for Occurrence of Special-status Plants

The project site is predominantly developed, and undeveloped areas are significantly and repeatedly disturbed (disked). The project site is surrounded by urbanized development and small areas of undeveloped lands that have been repeatedly disturbed. Because of the conditions on and adjacent to the project site, all special-status plants that occur in the region were assessed as having no or low potential for occurrence (Appendix C, Table 1). Thus, special-status plants are not expected to occur on the project site and are not discussed further.

5.3 - Special-status Wildlife Species

Fifty special-status wildlife species were identified as occurring within 10 miles of the project site as recorded in the CNDDB[34,35] and an additional species was identified in the USFWS IPaC[36] review (Appendix C, Table 2). Table 2 in Appendix C includes the species' status, required habitat types and features, and potential to occur within the project site. The table also includes special-status wildlife species that have been determined to have no or low potential to occur on-site, primarily based on the absence of suitable habitat and the lack of recorded occurrence in the project vicinity, along with other justification(s) for their exclusion from further discussion. Special-status wildlife species with moderate to high potential to occur on-site are analyzed further below. The potential for wildlife to occur on the project site was based on presence of suitable habitats and occurrences recorded in the CNDDB.[37,38]

5.3.1 - Potential for Occurrence of Special-status Wildlife

Most species with records in the project vicinity were assessed as having no or low potential to occur because the project site is outside of the known distributional range of the species or because the project site does not support suitable habitat (Appendix C, Table 2). These species are not discussed further. Three species, Cooper's hawk, burrowing owl, and California horned lark, were assessed as having moderate potential to occur on or adjacent to the project site, and are discussed below.

Cooper's Hawk

Cooper's hawk is designated as a California Species of Special Concern. This species occurs in riparian forests and woodlands throughout California, including urban forests.[39] It prefers patchy wooded areas, such as groves with edges with snags for perching. It nests in dense stands with moderate crown-depths, usually nests in second-growth conifer stands, or in deciduous riparian areas, usually near streams. Cooper's hawk prey on mid-sized birds such as jays, starlings, and doves, but they also

[34] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.
[35] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.
[36] United States Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed July 21, 2022.
[37] California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 21, 2022.
[38] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.
[39] Chiang, S.N., P.H. Bloom, A.M. Bartuszevige, and S.E. Thomas. 2012. Home range and habitat use of Cooper's Hawks in urban and natural areas. Online (www.ucpress.edu/go/sab) in C.A. Lepczyk and P.S. Warren (editors). Urban bird ecology and conservation. Studies in Avian Biology (no. 45), University of California Press, Berkeley, CA.

consume small rodents. The species capture prey from cover or while flying quickly through dense vegetation, relying on surprise. There are one recent and two historical records between 5 and 10 miles from the project site.

Trees on and adjacent to the project site support suitable nesting habitat for Cooper's hawk, and the species may forage on and adjacent to the project site.

Burrowing Owl

The burrowing owl is an owl in the family Strigidae. Burrowing owls occur in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably those of the California ground squirrel, but also those excavated by coyotes, desert kit foxes, desert tortoises, American badgers, and other burrowing mammals. Burrowing owl populations are threatened by habitat loss, pesticide use, and ground squirrel eradication programs, which limit suitable burrowing habitat. This species is considered a Species of Special Concern (SSC) by the CDFW and a Bird of Conservation Concern (BCC) by the USFWS. Take of this species is covered under the MSHCP under certain conditions; however, their nesting burrows are protected by the MBTA and Fish and Game Codes pertaining to native nesting avian species. There are three recent records within 5 miles of the project site and 11 recent and three historical records between 5 and 10 miles from the project site (Exhibit 6).[40]

The project site contains suitable habitat for burrowing owls in the undeveloped areas supporting wild oats and annual brome grasslands. There were California ground squirrel and valley pocket gopher burrows present within these areas, which may provide suitable burrowing habitat. There is a moderate potential for burrowing owls to occur on-site, but likely only as dispersing transients.

California Horned Lark

California horned lark is designated as a California SSC. This species is a common to abundant year-round resident that inhabits a variety of open habitats, such as grasslands and other open habitats with low, sparse vegetation, and typically where trees and large shrubs are absent. California horned lark nest on the ground, building grass-lined nests in a cup-shaped depression on open ground. This species is very gregarious and often forms large flocks that forage and roost together after the breeding season. California horned lark eats insects, snails, and spiders during breeding season and grass and forb seeds and other plant matter outside of the breeding season. There is one recent record within 5 miles of the project site and three recent records between 5 and 10 miles from the project site (Exhibit 6).[41]

The wild oats and annual brome grasslands on and adjacent to the project site may provide suitable foraging and nesting habitat for this species.

[40] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.

[41] California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.

5.3.2 - Nesting Birds

The project site contains numerous surfaces, structures, and vegetation that could provide suitable nesting habitat for bird species protected under the MBTA and the Fish and Game Code. These species include Cooper's hawk, burrowing owl, California horned lark, and other native avian species. Construction activities could disturb nesting and breeding birds in trees and shrubs within and around the project site. Potential impacts on special-status and migratory birds that could result from construction and operation of the proposed project include destruction of eggs or occupied nests, mortality of young, and abandonment of nests with eggs or young birds prior to fledging.

5.4 - Potentially Jurisdictional Water and Wetlands

There are no waters or wetland features on the project site that would be considered potentially jurisdictional by USACE, nor any features that would be considered potentially jurisdictional by State regulatory agencies including the RWQCB and CDFW.

CNDDB version 08/2022. Please Note:
The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Legend

- Project Site
- 10-Mile Radius
- 5-Mile Radius

Symbology

- Plant (circular)
- Multiple (circular)
- Sensitive EO's (Commercial only)

Scientific Name	Common Name
Nyctinomops femorosaccus	pocketed free-tailed bat
Malacothamnus parishii	Parish's bush-mallow

Charina umbratica
southern rubber boa

Lycium parishii
Parish's desert-thorn

10-Mile Radius

5-Mile Radius

Scientific Name	Common Name
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak
Arenaria paludicola	marsh sandwort

Rhaphiomidas terminatus abdominalis
Delhi Sands flower-loving fly

The following species (not shown on map) are also known to occur within this 10-mile radius area:

Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name	Common Name
Accipiter cooperii	Cooper's hawk	*Crotalus ruber*	red-diamond rattlesnake	*Neotoma lepida intermedia*	San Diego desert woodrat
Agelaius tricolor	tricolored blackbird	*Cuscuta obtusiflora var. glandulosa*	Peruvian dodder	*Nyctinomops femorosaccus*	pocketed free-tailed bat
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	*Dipodomys merriami parvus*	San Bernardino kangaroo rat	*Oncorhynchus mykiss irideus pop. 10*	steelhead - southern California DPS
Ambrosia pumila	San Diego ambrosia	*Dipodomys stephensi*	Stephens' kangaroo rat	*Onychomys torridus ramona*	southern grasshopper mouse
Anniella stebbinsi	Southern California legless lizard	*Dodecahema leptoceras*	slender-horned spineflower	*Perognathus longimembris brevinasus*	Los Angeles pocket mouse
Antrozous pallidus	pallid bat	*Empidonax traillii extimus*	southwestern willow flycatcher	*Phacelia stellaris*	Brand's star phacelia
Arizona elegans occidentalis	California glossy snake	*Eremophila alpestris actia*	California horned lark	*Phrynosoma blainvillii*	coast horned lizard
Artemisiospiza belli belli	Bell's sage sparrow	*Eriastrum densifolium ssp. sanctorum*	Santa Ana River woollystar	*Polioptila californica californica*	coastal California gnatcatcher
Aspidoscelis hyperythra	orange-throated whiptail	*Eugnosta busckana*	Busck's gallmoth	*Rhinichthys osculus ssp. 8*	Santa Ana speckled dace
Aspidoscelis tigris stejnegeri	coastal whiptail	*Eumops perotis californicus*	western mastiff bat	*Ribes divaricatum var. parishii*	Parish's gooseberry
Astragalus hornii var. hornii	Horn's milk-vetch	*Euphydryas editha quino*	quino checkerspot butterfly	*Riversidian Alluvial Fan Sage Scrub*	Riversidian Alluvial Fan Sage Scrub
Athene cunicularia	burrowing owl	*Falco columbarius*	merlin	*Senecio aphanactis*	chaparral ragwort
Berberis nevinii	Nevin's barberry	*Galium californicum ssp. primum*	Alvin Meadow bedstraw	*Setophaga petechia*	yellow warbler
Bombus crotchii	Crotch bumble bee	*Gila orcuttii*	arroyo chub	*Sidalcea neomexicana*	salt spring checkerbloom
Buteo swainsoni	Swainson's hawk	*Helianthus nuttallii ssp. parishii*	Los Angeles sunflower	*Southern California Arroyo Chub/Santa Ana Sucker Stream*	Southern California Arroyo Chub/Santa Ana Sucker Stream
Calochortus plummerae	Plummer's mariposa-lily	*Horkelia cuneata var. puberula*	mesa horkelia	*Southern Cottonwood Willow Riparian Forest*	Southern Cottonwood Willow Riparian Forest
Carex comosa	bristly sedge	*Icteria virens*	yellow-breasted chat	*Southern Riparian Scrub*	Southern Riparian Scrub
Catostomus santaanae	Santa Ana sucker	*Lanius ludovicianus*	loggerhead shrike	*Southern Sycamore Alder Riparian Woodland*	Southern Sycamore Alder Riparian Woodland
Centromadia pungens ssp. laevis	smooth tarplant	*Lasiurus xanthinus*	western yellow bat	*Spea hammondii*	western spadefoot
Ceratochrysis longimala	Desert cuckoo wasp	*Lasthenia glabrata ssp. coulteri*	Coulter's goldfields	*Sphenopholis obtusata*	prairie wedge grass
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	*Laterallus jamaicensis coturniculus*	California black rail	*Spinus lawrencei*	Lawrence's goldfinch
Chorizanthe parryi var. parryi	Parry's spineflower	*Lepidium virginicum var. robinsonii*	Robinson's pepper-grass	*Streptocephalus woottoni*	Riverside fairy shrimp
Cicindela tranquebarica viridissima	greenest tiger beetle	*Lepus californicus bennettii*	San Diego black-tailed jackrabbit	*Symphyotrichum defoliatum*	San Bernardino aster
Coccyzus americanus occidentalis	western yellow-billed cuckoo	*Monardella pringlei*	Pringle's monardella	*Taxidea taxus*	American badger
Coleonyx variegatus abbotti	San Diego banded gecko	*Nasturtium gambelii*	Gambel's water cress	*Vireo bellii pusillus*	least Bell's vireo

Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), August 2022.

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2.5 1.25 0 2.5 Miles

Exhibit 6
CNDDB Special-Status Species Occurrences (10-mile radius)

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SECTION 6: MSHCP CONSISTENCY ANALYSIS

6.1 - Relationship to Criteria Cells, Cell Groups, and Conservation Areas

The project is located within the MSHCP plan area but is not "within or adjacent to" a Criteria Cell or Conservation Area. The nearest Criteria Cell Group (146) is located approximately 1.2 miles east of the project site (Exhibit 7). The nearest Conservation Areas include a Shinkle Conservation Easement (Public Quasi-Public Conserved Land) approximately 0.2 mile northeast of the project site, Citrus Business Park Conservation Easement (Public Quasi-Public Conserved Land) approximately 0.45 mile north of the project site, Box Spring Reserve (Public Quasi-Public Conserved Land) approximately 0.75 mile southeast of the project site, and Palmyrita Donation (RCA Conserved Land) approximately 1 mile southeast of the project site. This project area is not located within any Linkage. Because of its location outside of any Criteria Cells or Cell Groups, the project is not subject to Reserve Assembly Analysis requirements under the MSHCP. Because the project site is not within or adjacent to any MSHCP Conservation Areas, the project is not subject to Guidelines Pertaining to the Urban/Wildlands Interface or other requirements under the MSHCP pertaining to projects or actions implemented within or adjacent to a Conservation Area.

The project site is not located within an area slated for "Existing or Pending Conservation." The project site does not feature "Avoidance Areas," or areas that must be protected by, or proposed to be protected by, deed restriction. Current conditions and full development of the approximately 13.60-acre project site would not provide for any contributions to "Undeveloped Areas Potentially Available for Future Conservation."

6.2 - Covered Roads

Two Covered Roads, Palmyrita Avenue, a Secondary Road, and Iowa Avenue, an Urban Arterial, are located along the southern and western borders of the project site and outside of the project development area. The project proposes three driveways that articulate with Palmyrita Avenue and Iowa Avenue; however, because the proposed project is located outside of any Criteria Area or Public/Quasi-Public Lands, the proposed project is not subject to Covered Road requirements under the MSHCP.

6.3 - Covered Public Access Activities

The project site is not located within an MSHCP Conservation Area and therefore, not subject to Covered Public Access Activities requirements under the MSHCP.

6.4 - Public Quasi-Public Lands

The project site is not located within or adjacent to any public or quasi-public lands, nor any area designated as Public/Quasi-Public Conserved Lands. The proposed project is not subject to MSHCP requirements covering Public Quasi-Public Lands.

6.5 - Covered Species Survey Area Requirements

The project site is located in the following covered species survey area:

- Burrowing Owl Survey Area

The proposed project is therefore subject to survey requirements for burrowing owl. Initially, the project site would be subject to a burrowing owl habitat assessment on and adjacent (within 500 feet) to the project site, per MSHCP protocol and per CDFW (2012) protocol.

The project area is not located in any of the following covered species survey areas:

- Amphibians Survey Area
- Mammals Survey Area
- Narrow Endemic Plants Survey Area
- Delhi Sands Flower-loving Fly Survey Area
- Criteria Area Species

Additionally, the project site is not located within any Additional Needs Survey Areas. The proposed project is therefore not subject to these survey requirements under the MSHCP.

6.6 - Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

6.6.1 - Riparian Riverine Habitat

There is no Riparian Riverine Habitat on the project site or within 500 feet. The proposed project is therefore not subject to Riparian Riverine Requirements under the MSHCP.

6.6.2 - Riparian Birds

There is no Riparian Riverine Habitat on or adjacent to the project site and therefore no habitat for any riparian/riverine bird species, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), or western yellow-billed cuckoo (*Coccyzus americanus*). The proposed project is therefore not subject to riparian bird survey requirements.

6.6.3 - Vernal Pools

There are no vernal pools or features indicative of the historic presence of vernal pools on the project site or within 500 feet. According to the NRCS Web Soil Survey (2022), two soil types are mapped on the project site (Exhibit 4). Neither soil type on the project site are known to be soils utilized by fairy shrimp species known to occur in the Western Riverside County MSHCP Plan Area. [42] The proposed project is not subject to Vernal Pool or Vernal Pool Species requirements under the MSHCP.

[42] United States Fish and Wildlife Service (USFWS). 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages.

6.7 - Additional Survey Needs and Procedures

6.7.1 - Burrowing Owl

Analysis

The wild oats and annual brome grasslands in the western and eastern portions of the project site, as well as an adjacent area north of the western extent of the site, supports suitable foraging habitat for burrowing owl. There are small mammal burrows, including from California ground squirrels that could be used by burrowing owls. However, due to the heavy development surrounding the project site, this habitat is likely only valuable to transient burrowing owls that could use the site temporarily. For these reasons, there is a moderate potential for burrowing owl to occupy the project site. The CNDDB shows 17 records of burrowing owls within 10 miles of the project site. This species is covered under the MSHCP and protected by the MBTA and Fish and Game Codes.

Potential Project Impacts

Construction of the proposed project could potentially impact burrowing owls if ground-disturbing construction activities are initiated or conducted during the burrowing owl nesting season (February 15 through August 31).

Proposed Mitigation

Mitigation for burrowing owls is presented in Section 7.

6.7.2 - Nesting Birds

Analysis

The project area supports vegetation communities, land cover types, and other habitat features that provide nesting habitat for avian species covered under the MBTA and Fish and Game Codes, including common, native species.

Potential Project Impacts

Construction of the proposed project could potentially impact nesting birds if ground-disturbing construction activities are initiated or conducted during the avian breeding season (February 15 through August 31).

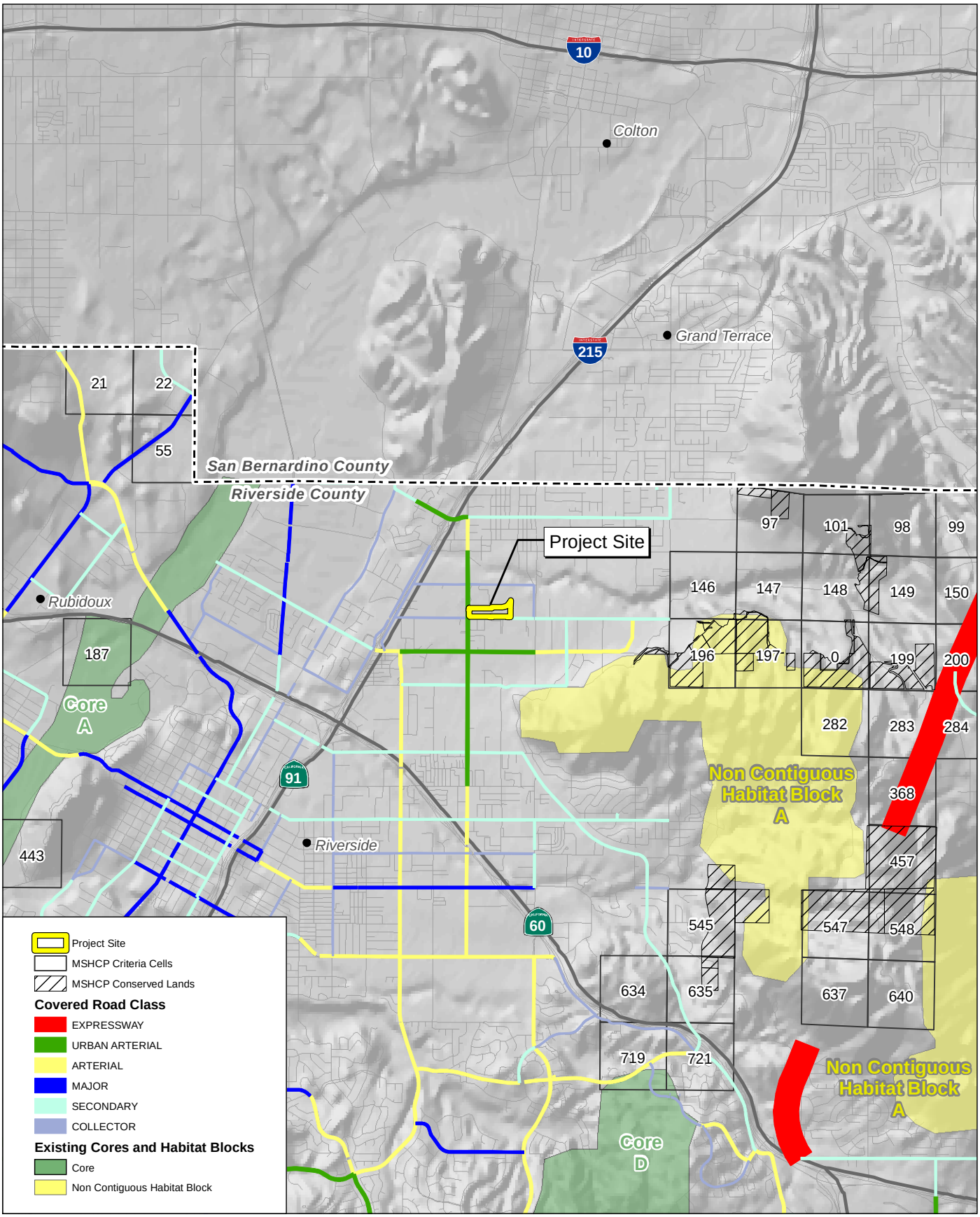
Proposed Mitigation

Mitigation for nesting birds is presented in Section 7.

6.8 - Best Management Practices

The project applicant shall implement Standard Best Management Practices (BMPs) of the MSHCP (Volume I, Appendix C). The BMPs are presented in Section 7.

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Source: USGS, Western Riverside County Regional Conservation Authority (RCA) MSHCP, Census 2000 data.

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Exhibit 7
MSHCP Conservation Areas in Relation to the Project Site

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DEDEAUX PROPERTIES, INC.
PALMYRITA AVENUE WAREHOUSE PROJECT
BIOLOGICAL RESOURCES ASSESSMENT AND WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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SECTION 7: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential project impacts on regulated biological resources, including special-status species, and recommends measures to avoid and/or mitigate impacts to a less than significant level under CEQA.

7.1 - Mitigation Measures

The following mitigation measures are required to reduce potential project-related impacts to less than significant levels. These mitigation measures clarify, expand upon, and are consistent with measures required under the MSHCP.

7.1.1 - Burrowing Owls

The wild oats and annual brome grasslands in the western and eastern portions of the project site, as well as an adjacent area north of the western extent of the site, supports suitable foraging habitat for burrowing owl. There are small mammal burrows, including from California ground squirrels that could be used by burrowing owls. The CNDDB shows 17 records of burrowing owls within 10 miles of the project site. This species is covered under the MSHCP and protected by the MBTA and Fish and Game Codes. Construction of the proposed project could potentially impact burrowing owls if ground-disturbing construction activities are initiated or conducted during the burrowing owl nesting season (February 15 through August 31).

MM BIO-1a **Burrowing Owl Pre-Construction Survey**

The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owl are present on-site within 30 days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) guidelines and Multiple Species Habitat Conservation Plan (MSHCP) protocol. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. The applicant shall provide a burrowing owl survey report and mapping to the City at least 15 days prior to the expected start of any project-related ground disturbance activities, or restart of activities. If the survey is positive for burrowing owls, the project applicant shall implement MM BIO-1b. If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

MM BIO-1b **Burrowing Owl Mitigation Plan**

If the pre-construction survey is positive for burrowing owl, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following

elements (as outlined in the California Department of Fish and Wildlife [CDFW] 2012 guidelines) at a minimum:

- Avoidance of burrowing owl during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through February 14) or a 300-foot radius around occupied burrows during the breeding season (February 15 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owl have dispersed from the area; or (2) breeding season owl have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

7.1.2 - Nesting Birds

The project site and adjacent lands support vegetation communities, land cover types, trees, and other habitat features that provide nesting habitat for avian species covered under the MBTA and Fish and Game Code, including common, native species. Construction of the proposed project could potentially impact nesting birds if ground-disturbing or vegetation-removing construction activities are initiated or conducted during the avian breeding season (February 15 through August 31).

The project applicant shall implement the following mitigation measures to avoid potential impacts to nesting birds protected under the Fish and Game Code or the MBTA, including Cooper's hawks, burrowing owls, and California horned larks. Implementation of the following measures would avoid and/or minimize potential effects to migratory birds and habitat in and adjacent to the project area. These measures shall be implemented for construction work during the nesting season (February 15 through August 31)**:**

MM BIO-2a Nesting Bird Pre-construction Surveys

If ground-disturbing or vegetation-removing construction activities or tree removal is proposed during the breeding/nesting season for migratory birds (typically February 15 through August 31), a qualified Biologist shall conduct pre-construction surveys for special-status birds and other migratory birds within the construction area including a 300-foot survey buffer, no more than 3 days prior to the start of ground-disturbing activities in the construction area.

MM BIO-2b Avoidance of Active Avian Nests

If an active nest is located during pre-construction surveys or at any point during the construction phase of the project, the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) (as appropriate)

shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or a qualified Biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 300 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.

7.1.3 - Best Management Practices

MM BIO-3 Implement MSHCP Best Management Practices

Project personnel shall implement the following standard Multiple Species Habitat Conservation Plan (MSHCP) Best Management Practices (BMPs) during the construction phase of the proposed project:

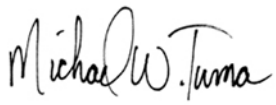
1. A condition shall be placed on grading permits requiring a qualified Biologist to conduct Worker Environmental Awareness Program (WEAP) training for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act and the MSHCP, the need to adhere to the provisions of the Endangered Species Act and the MSHCP, the penalties associated with violating the provisions of the Endangered Species Act, the general measures that are being implemented to conserve the species of concern as they relate to the proposed project, and the access routes to and project site boundaries within which the proposed project activities must be accomplished.
2. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
3. The qualified project Biologist shall monitor construction activities for the duration of the proposed project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
4. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
5. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
6. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
7. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the proposed project and shall be specified in the

construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

8. The City shall have the right to access and inspect the project site to determine its compliance with project approval conditions, including these BMPs.

SECTION 8: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this Biological Resources Assessment and MSHCP Consistency Analysis, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: October 19, 2022 Signed: 

Michael W. Tuma, PhD, Senior Biologist
FirstCarbon Solutions
967 Kendall Drive, #A-537
San Bernardino, CA 92407
909.884.2255

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Appendix A: Resumes

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FIRSTCARBON SOLUTIONS™

MICHAEL TUMA, PHD, CWB, RPA—SENIOR BIOLOGIST

OVERVIEW

- More than 26 years of experience
- Experience leading teams in large data collection and analysis efforts

Education

- Doctor of Philosophy, Integrative and Evolutionary Biology, University of Southern California, Los Angeles, CA, 2016
- Master of Science, Anthropology, University of Southern Mississippi, Hattiesburg, MS, 1998
- Master of Science, Zoology, Eastern Illinois University, Charleston, IL, 1993
- Bachelor of Science, Zoology, Truman State University, Kirksville, MO, 1991

Permits, Authorizations, and Certifications

- Certified Wildlife Biologist, The Wildlife Society, 2013–present
- Certified Significant Ecological Areas Technical Advisory Committee (SEATAC) Biota Report Preparer, Los Angeles County Department of Regional Planning, 2008–present
- Qualified Biologist, San Bernardino County, 2007–present
- Authorized Biological Consultant, Riverside County, 2006–present
- Authorized Biologist for Agassiz's desert tortoise activities under 10(a)1(A) Recovery Permits (former) and Biological Opinions, US Fish and Wildlife Service (USFWS), August 2005–present
- California Scientific Collecting Permit/California Endangered Species Act (ESA)-Memorandum of Understanding, California Department of Fish and Wildlife (CDFW), August 2005–present

Trainings and Workshops

- ArcGIS Training Courses, Esri Academy, 2016–present
- Desert Tortoise Health Assessments for Translocation Projects, Desert Tortoise Council, 2015
- CEQA Workshop, Association of Environmental Professionals, 2008
- Endangered Species: Regulation, Conservation Planning, and Permits for Development, University of California, Los Angeles Extension, 2008
- Desert Tortoise Health Assessment and Phlebotomy Training, US Geographical Survey (USGS), 2007
- Endangered Species Permitting: Strategies and Successful Negotiations Workshop, The Wildlife Society, 2006
- A/E/C Project Management Bootcamp, PSMJ Resources, Inc., 2006
- Introduction to CEQA: A Step-by-Step Approach Workshop, SCWA, 2005
- Western Pond Turtle Workshop: Ecology and Conservation, The Wildlife Society, 2005
- Surveying, Monitoring, and Handling Techniques Workshop, Desert Tortoise Council, 2004

Professional Affiliation

- Adjunct Professor, University of Southern California, March 2019–present
- Chair, Board of Directors, Desert Tortoise Council, February 2018–February 2020
- Chair, Media Committee, Desert Tortoise Council, June 2017–present
- Chair, Grants Committee, Desert Tortoise Council, January 2016–present
- Board of Directors Member, Desert Tortoise Council, January 2014–present
- Newsletter Editor, Desert Tortoise Council, January 2014–January 2018

FIRSTCARBON SOLUTIONS™

MICHAEL TUMA, PHD, CWB, RPA—SENIOR BIOLOGIST

Michael Tuma, PhD, CWB, RPA, has more than 26 years of experience as a professional scientist in academic settings, agency positions, and as an environment consultant. He assists clients in complying with laws such as the ESA, the National Historic Preservation Act, CEQA, and NEPA. He has experience in a wide variety of technical biological work, including rare plant surveys and botanical inventories, habitat restoration planning and implementation, field data collection, population and habitat modeling, and technical biological reporting. He is a proficient project and client manager with experience in a diversity of market sectors, including land management, renewable energy, transportation, water infrastructure, gas and mineral extraction, and land development. Dr. Tuma has led teams in the implementation of studies and documentation in support of permitting and compliance with numerous environmental laws, including the Federal Endangered Species Act, California Endangered Species Act, NEPA, CEQA, and Migratory Bird Treaty Act, among many others. Dr. Tuma is an experienced leader and has supervised and mentored groups of biologists. He has directed teams on large and long-term projects and mentored junior staff on issues pertaining to project management, technical studies and documentation, and regulatory processes. He has led and mentored large groups of volunteers and international biologists on learning advanced data collection techniques and has experience leading a non-profit organization with more than 350 members. Dr. Tuma is skilled in project management, statistics, geographic information systems (GIS), and computer modeling. He has a passion for educating the public about science, and has been providing tutoring sessions, workshops, and lectures for more than 20 years.

RELATED EXPERIENCE AND CLIENT SUMMARY

Biological, Archaeological, and Paleontological Monitoring and Reporting Services for the Los Angeles Regional Interoperable Communications System, Los Angeles County, CA

FCS provided monitoring and reporting services during the construction of more than 150 land mobile radio (LMR) facilities at sites located primarily in Los Angeles County. The LMR sites contain the infrastructure and equipment necessary to provide voice communications coverage throughout the County for emergency responders. These locations are widely dispersed across the County in both urban (intensively developed) and rural (less developed) settings and include coastal locations, sites in downtown Los Angeles, remote mountain peaks across the County, and the northern high desert. FCS conducted the biological, archaeological, and paleontological pre-construction and construction monitoring and reporting services in accordance with the Construction Management Requirements outlined in the NEPA Environmental Assessment that FCS prepared for the project.

Dr. Tuma served as Biological Monitor for this project in 2020. His responsibilities included implementing mitigation measures and ensuring project compliance in support of the LA-RICS LMR System in Los Angeles County, California. Dr. Tuma monitored project for compliance for up to 33 mitigation measures, including performing clearance surveys for special status species, pre-construction nesting bird surveys, and several measures pertaining to California condor (*Gymnogyps californianus*) conservation, including condor hazing.

Other Relevant FCS Projects

- Port of Los Angeles Industrial Project Bird's Nest Survey, City of Los Angeles, CA
- Alton Parkway Logistics Facility Project IS/MND and Technical Studies, City of Irvine, CA
- Quick N Clean Car Wash Project IS/MND and Technical Studies, City of Adelanto, CA
- Bridge Point Peer Review of EIR and Technical Reports, City of Rancho Cucamonga, CA

- Redlands Residential Project Biological and Cultural Due Diligence, City of Redlands, CA
- Lilac Avenue Warehouse Due Diligence Memoranda, City of Rialto, CA
- Barton Road Logistics Center Project EIR, Technical Studies, and Peer Review, City of Colton, CA
- Griswold Residential Project Constraints Analysis, Unincorporated Los Angeles County, CA

Prior Work Experience

Santa Susana Field Laboratory, Boeing (through contract with MWH Americas, Inc.), Ventura County, CA

Dr. Tuma served as the Project Manager for this project between 2006 and 2008. Under one task he designed and conducted field investigations on the extent and size of Braunton's milk-vetch (*Astragalus brauntonii*) population within an area of a USFWS-proposed designated Critical Habitat. He led field efforts, which included conducting vegetation mapping, delineating the Braunton's milk-vetch population within the proposed area, estimating the population size with the use of randomized transects and quadrats, conducting a complete vascular plant inventory within the study area, and authoring a technical report detailing the results of the investigation, which were used by the client in commenting on the proposed area of designated Critical Habitat. Dr. Tuma performed other tasks under this project, including nesting bird surveys, pre-construction surveys for special status species, and a revegetation/mitigation effort for the California Rare Santa Susana tarplant.

Environmental Generalist Services Task Order Contract, California Department of Transportation District 7, Los Angeles and Ventura Counties, CA

Dr. Tuma served as a Senior Biologist for this two-year on-call environmental services contract with the California Department of Transportation (Caltrans) District 7 between 2014 and 2015. While serving in this capacity, contributed to two task orders in support of the State Route 138 NW project, which consists of protocol desert tortoise, burrowing owl, and rare plant surveys and an analysis of wildlife crossing and movements on State Route (SR) 138 between SR 14 and Interstate 5. Dr. Tuma led in the field surveys, planned field and desktop analyses, directed a group of biologists and GIS specialists, and served as primary author of the deliverables produced for these task orders.

Dune Palms Road Crossing Replacement, Caltrans (through contract with Parsons Brinckerhoff), Riverside County, CA

Dr. Tuma served as the Project Manager for this project in 2014 and 2015. He was responsible for coordinating natural resources studies and agency consultation in support of the preparation of a Caltrans Natural Environment Study (NES). Project tasks included a general biological survey, focused surveys for burrowing owl and rare plants, trapping efforts for Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus*) and Palm Springs pocket mouse, a jurisdictional waters/habitats determination, agency consultation, preparation of a Biological Assessment in support of Section 7 consultation, documentation of study results, and preparation of the NES.

Desert Quartzite Solar Energy Project EIR/EIS and Biological Studies, First Solar, Inc., Riverside County, CA

Dr. Tuma served as the Project Manager for this project in 2015 and 2016, and was responsible for client management, biological studies, technical report preparation, and CEQA/NEPA documentation for a large-scale development in east Riverside County, California. His specific duties included reviewing studies prepared by prior consultants, conducting updated field surveys (vegetation mapping, rare plant, and desert tortoise surveys) and technical studies, and preparing the EIR/EIS Biological Resources

section and appendices (Invasive Weed Management Plan, Raven Management Plan, Desert Tortoise Translocation Plan, Desert Kit Fox and American Badger Management Plan, Rare Plant Management Plan, and Vegetation Restoration Plan).

Edom Hills Wind Energy Facility, BP Wind Energy North America, Inc., Riverside County, CA

Dr. Tuma served as the Project Manager and Lead Authorized Biologist for this project in 2016 and was responsible for conducting a habitat assessment, eolian dune characterization study, and biological monitoring of project activities in support of minimizing the potential for take of Coachella Valley fringe-toed lizard (*Uma inornata*) and Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*) during the installation of equipment in two project turbines. He coordinated with the BLM project Biologist to gain approval of biologists to monitor the work, and concurrence for the recommended mitigation measures, which included removing wind-blown sands from portions of the access road and placing the sand in adjacent areas where they could continue transport in the eolian ecosystem. He authored a post-construction memorandum that detailed the restoration of the eolian sand and avoidance of sensitive microhabitats where fringe-toed lizards typically hibernate during the project activities.

High Desert Solar Project, Middle River Power (through contract with AECOM), San Bernardino County, CA

Dr. Tuma served as the Lead Authorized Biologist for this project in 2020. He led the implementation of a desert tortoise translocation program in support of the High Desert Solar Project site in Victorville, San Bernardino County, California. The effort consists of performing protocol health assessments, collecting blood samples for disease testing, translocating tortoises from the development area to an off-site location in the Kramer Hills in the Fremont-Kramer Critical Habitat Unit, and monitoring them following translocation. Additional tasks included transplanting western Joshua trees from the project site, and monitoring of Environmentally Sensitive Areas established around active desert kit fox dens and burrowing owl burrows.

Agassiz's Desert Tortoise Population Modeling and Conservation Planning for the Superior-Cronese and Gold Butte-Pakoon Critical Habitat Units, BLM, San Bernardino County, CA, Clark County, NV, and Mohave County, AZ

As the Project Manager, Client Manager, and Principal Investigator of this project, Dr. Tuma conducted research into the population biology of Agassiz's desert tortoises on two study areas that comprise federal lands administered by the BLM between 2008 and 2013. He directed a team of more than 40 biologists, statisticians, and GIS specialists who contributed to the project; successfully developed spatially explicit, individual-based population models used to rank the importance of site-specific threats at each of the study areas; and served as the primary author of the technical report deliverables. This project consisted of collecting field data, compiling GIS data, conducting intensive literature reviews and expert interviews, and developing tortoise occurrence models, population models, and threats models for study areas that included the Superior-Cronese Critical Habitat Unit in San Bernardino County, California, and the Gold Butte-Pakoon Critical Habitat Unit in Clark County, Nevada, and Mohave County, Arizona. The modeling effort allowed Dr. Tuma to simulate the effects of site-specific threats on tortoise populations at each study area and develop land management and species conservation strategies that could be implemented by the BLM Field and State Offices on tortoise populations within each Critical Habitat Unit. He presented the research at the annual meetings of the Desert Tortoise Council, The Wildlife Society, and the World Congress of Herpetology, and published a manuscript in the Journal of Wildlife Management in early 2016.

Appendix B:
Site Photographs

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Photo 1: Overview of parking area and existing warehouse in the south-central portion of the project site, facing west.



Photo 2: Overview of parking area in eastern portion of the project site, facing northeast.



Photo 3: Overview of the wild oats and annual brome grasslands in the eastern portion of the project site, facing north.



Photo 4: Overview of wild oats and annual brome grasslands in the western portion of the project site, facing west.

Appendix C:
Special-status Species Tables

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Table 1: Special-status Plant Species Potentially Occurring within the Project Site

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Dicots						
Ambrosia pumila San Diego ambrosia	— MSHCP	—	1B.1	Perennial rhizomatous herb found in chaparral, coastal scrub, valley and foothill grassland, vernal pools at elevations between 20–415 m. Bloom period: April-October	**Low:** Marginal habitat for this species is present in the no-native grasslands on and adjacent to the project site, but the soils there have been subjected to repeated disturbances that would likely prevent its occurrence. There is one historical record between 5 and 10 miles from the project site.	No
Arenaria paludicola marsh sandwort	FE	SE	1B.1	Perennial stoloniferous herb found in marshes and swamps (freshwater or brackish) at elevations between 3–170 m. Bloom period: May–August	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands present on-site. There is one historical record within 5 miles of the project site.	No
Astragalus hornii var. hornii Horn's milk-vetch	—	—	1B.1	Occurs on salty flats, alkali sinks, lake shores, and riparian habitats. Blooming period: May–October Elevation: 60-300 m	**None:** The project site does not contain suitable habitat to support this species. There is one historical record between 5 and 10 miles from the project site.	No
Berberis nevinii Nevin's barberry	FE MSHCP	SE	1B.1	Occurs on steep, north-facing slopes or in low grade sandy washes in chaparral, cismontane woodland, coastal sage and Riversidean alluvial fan sage scrub, and riparian scrub habitats. Blooming period: March–June Elevation: 290-1575 m	**None:** The project site does not contain suitable habitat to support this species. There is one historical record within 5 miles of the project site, and one recent and two historical records between 5 and 10 miles from the project site.	No
Centromadia pungens ssp. laevis smooth tarplant	— MSHCP	—	1B.1	Occurs in alkali meadow, alkali scrub, and disturbed places in valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland habitats. Bloom period: April–September Elevation: 0–640 m	**None:** The project site does not contain suitable habitat to support this species. There is one historical record within 5 miles of the project site, and four recent and two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	FE	SE	1B.2	Dicot annual herb found in coastal dunes, marsh and swamp, salt marsh, and wetlands habitats. Limited to the higher zones of the salt marsh habitat at elevations between 0–30 m. Bloom period: May–October	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands present on-site. There is one historical record within 5 miles of the project site.	No
Chorizanthe parryi var. *parryi* Parry's spineflower	— MSHCP	—	1B.1	Annual herb found in chaparral, coastal scrub, cismontane woodland, valley and foothill grassland at elevations between 275–1,220 m. Bloom period: April–June	**Low:** Marginal habitat is present within the non-native grasslands on and adjacent to the project site, but the soils there have been subjected to repeated disturbances that would likely prevent its occurrence. There are five historical records within 5 miles of the project site, and two historical records between 5 and 10 miles from the project site.	No
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	—	—	2B.2	Annual parasitic vine found in freshwater swamps and marshes at elevations between 15–280 m. Bloom period: July–October	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands present on-site. There is one historical record within 5 miles of the project site.	No
Dodecahema leptoceras Slender-horned spineflower	FE MSHCP	SE	1B.1	Annual herb found in chaparral, coastal scrub and cismontane woodlands at elevations between 200–760 m. Bloom period: April–June	**None:** The project site does not contain suitable habitat to support this species due to the lack of chaparral or scrub vegetation. There is one historical record within 5 miles of the project site.	No
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woolystar	FE MSHCP	SE	1B.1	Dicot perennial herb found in chaparral and coastal scrub habitat. Prefers sandy soils on river floodplains or terraced fluvial deposits at elevations between 180–700m. Bloom period: May–September	**None:** The project site does not contain suitable floodplain habitat to support this species. Nearest recorded occurrences are found adjacent to the Santa Ana River. There are seven recent records and one historical records within 5 miles of the project site, and five recent and three historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Galium californicum ssp. *primum* Alvin Meadow bedstraw	— MSHCP	—	1B.2	Perennial herb chaparral lower montane coniferous forest at elevations between 1350–1700 m. Bloom period: May–July	**None:** The project site does not contain suitable forested habitat to support this species. The project site is too low in elevation for species to occur. There is one historical record within 5 miles of the project site.	No
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	—	—	1A	Dicot perennial (*rhizomatous*) herb found in marshes and swamps, including coastal salt and freshwater at elevations between 10–1,675 m. Bloom period: August–October	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands present on-site. There is one historical record within 5 miles of the project site.	No
Horkelia cuneata var. *puberula* mesa horkelia	—	—	1B.1	Perennial herb found in chaparral, coastal scrub and cismontane woodlands at elevations between 70–810 m. Bloom period: February–July	**None:** There is no suitable habitat present within the project site due to the frequent disturbance of the site and lack of chaparral or scrub vegetation. There are two historical records within 5 miles of the project site, and two historical records between 5 and 10 miles from the project site.	No
Lasthenia glabrata ssp. coulteri Coulter's goldfields	— MSHCP	—	1B.1	Annual herb found in marshes and swamps, playas, and vernal pools. Elevation: 1-1220 m Bloom period: February-June	**None:** The project site does not contain suitable habitat to support this species due to the lack of marshes and swamps present on-site. There is one historical record between 5 and 10 miles from the project site.	No
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	—	—	4.3	Dicot annual herb found in chaparral, coastal scrub. Prefers dry soils and shrubland at elevations between 1–855 m. Bloom period: January–July	**None:** The project site does not contain suitable habitat due to frequent disturbance of the site and lack of chaparral or scrub vegetation. There are one recent and five historical records within 5 miles of the project site, and two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Lycium parishii Parish's desert-thorn	—	—	2B.3	Perennial shrub found in coastal scrub and Sonoran Desert scrub. Elevation: 135–1,000 m. Blooming period: March–April	**None:** The project site does not contain suitable habitat to support this species due to the lack of coastal scrub present on-site. There is one historical record between 5 and 10 miles from the project site.	No
Malacothamnus parishii Parish's bush-mallow	—	—	1A	Perennial deciduous shrub found in chaparral, coastal scrub at elevations between 305–455 m. Bloom period: June–July	**None:** The project site does not contain suitable habitat due to frequent disturbance of the site and lack of chaparral or scrub vegetation. There is one historical record within 5 miles of the project site.	No
Monardella pringlei Pringle's monardella	—	—	1A	Annual herb found in coastal scrub with sand soils at elevations between 300–400 m. Bloom period: May–June	**None:** The project site does not contain suitable habitat due to frequent disturbance of the site and lack of coastal scrub vegetation. There is one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Phacelia stellaris Brand's star phacelia	— MSHCP	—	1B.1	Annual herb found in coastal dunes and coastal scrub at elevations between 1–400 m. Bloom period: March–June	**None:** The project site does not contain suitable habitat due to frequent disturbance of the site and lack of coastal scrub vegetation. There is one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Ribes divaricatum var. parishii Parish's gooseberry	—	—	1A	Occurs in moist or riparian woodland habitat. Blooming period: February–April Elevation: 60-310 m	**None:** The project site does not contain suitable habitat to support this species. There is one historical record between 5 and 10 miles from the project site.	No
Rorippa gambellii Gambel's watercress	FE	ST	1B.1	Occurs in freshwater and brackish marshes and at the margins of lakes and along streams in or just above the water level. Blooming period: April–October Elevation: 5-330 m	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands present on-site. There is one historical record between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Senecio aphanactis chaparral ragwort	—	—	2B.2	Dicot annual herb found in chaparral, cismontane woodland, and coastal scrub habitat at elevations between 15–800m. Prefers drying alkaline flats. Bloom period: January–April	**None:** The project site does not have suitable habitat due to the frequent disturbance of the site and lack of chaparral or scrub vegetation or alkaline flats. There is one recent record and one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Sidalcea neomexicana salt spring checkerbloom	—	—	2B.2	Occurs in alkaline springs and marshes. Blooming period: March–June Elevation: < 1500 m	**None:** The project site does not contain suitable habitat to support this species due to the lack of springs and marshes present on-site. There is one historical record between 5 and 10 miles from the project site.	No
Symphyotrichum defoliatum San Bernardino aster	—	—	1B.2	Perennial, rhizomatous herb found in banks of ditches, streams, and springs in cismontane woodlands, coastal scrub, lower montane coniferous forests, meadows and seeps, marshes and swamps, and vernally mesic valley and foothill grasslands. Elevation: 2–2,040 m. Bloom period: July–November	**None:** The project site does not contain suitable habitat to support this species. There are two historical records between 5 and 10 miles from the project site.	No
Monocots						
Calochortus plummerae Plummer's mariposa-lily	— MSHCP	—	4.2	Occurs on rocky and sandy sites, usually of granitic alluvial material, in coastal sage and Riversidean alluvial fan sage scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest habitats. Can be very common after fire. Bloom period: May–July Elevation: 100-1700 m	**None:** Suitable habitat for this species is not present on the project site, and the soils on the project site have been subjected to numerous disturbances that would prevent its occurrence. There are two recent records within 5 miles of the project site, and two recent records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Carex comosa bristly sedge	—	—	2B.1	Perennial rhizomatous herb found in coastal prairie, marshes and swamps (lake margins), valley and foothill grasslands at elevations between 0–625 m. Bloom period: May–September	**None:** The project site does not contain suitable habitat to support this species due to the lack of wetlands or grasslands present on-site. There is one historical record within 5 miles of the project site.	No
Sphenopholis obtusata prairie wedge grass	—	—	2B.2	Perennial herb found in cismontane woodlands, meadows and seeps at elevations between 300–2,000 m. Bloom period: April–July	**None:** The project site does not contain suitable habitat due to the frequent disturbance of the site and lack of woodlands and meadows present on-site. There are two historical records within 5 miles of the project site.	No

Code Designations

[1] Federal Status: 2020 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under Federal Endangered Species Act (FESA).
- **FT** = Listed as threatened under FESA.
- **FC** = Candidate for listing (threatened or endangered) under FESA.
- **FD** = Delisted in accordance with FESA.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2020 CDFW Listing

- **SE** = Listed as endangered under California Endangered Species Act (CESA).
- **ST** = Listed as threatened under CESA.
- **SSC** = Species of Special Concern as identified by the CDFW.
- **FP** = Listed as fully protected under the Fish and Game Code.
- **CFG** = Fish and Game Code =protected by Fish and Game Code 3503.5
- **CR** = Rare in California.
- **—** = Not State listed

[3] CNPS: 2020 CNPS Listing

- **Rank 1A** = Plants species that presumed extinct in California.
- **Rank 1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.
- **Rank 2** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
- **Rank 3** = Plants about which we need more information—A Review List
- **Rank 4** = Plants of limited distribution—A Watch List

Blooming period: Months in parentheses are uncommon.

[3] **Habitat description**: Habitat description adapted from CNDDB (CDFW 2022~~0~~) and CNPS online inventory (CNPS 2022~~0~~).

Table 2: Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Crustaceans					
Streptocephalus woottoni Riverside fairy shrimp	FE MSHCP	—	Vernal pools on the Santa Rosa Plateau on Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils.	**None.** Suitable habitat for this species is not present on or adjacent to the project sitedue to the lack of vernal pools. There are two historical records between 5 and 10 miles from the project site.	No
Insects					
Bombus crotchii Crotch bumble bee	—	CE	Occurs in grassland and scrubland habitats. Nests in abandoned rodent burrows.	**Low.** Marginal habitat for this species is present in the non-native grasslands on and adjacent to the project site. There are three recent (all from 2020) and three historical records within 5 miles of the project site, and two recent and one historical records between 5 and 10 miles from the project site.	No
Ceratochrysis longimala desert cuckoo wasp	—	—	Unknown habitat requirements, but prefer dry areas and sandy soils.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site.	No
Cicindela tranquebarica viridissima greenest tiger beetle	—	—	Inhabits the woodlands adjacent to the Santa Ana River basin and usually is found in open spots between trees in riparian woodlands.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site.	No
Danaus plexippus monarch butterfly	—	—	Occurs in temperate climates, such as eastern and western North America and undergoes long-distance migration. Lays eggs on obligate milkweed host plant (primarily Asclepias spp.)	**Low:** No milkweed is present on project site therefore species would only occur as a transient.	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Eugnosta busckana Busck's gallmoth	—	—	Unknown habitat requirements, but probably inhabits a variety of grassland and scrub habitats.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site. This species is believed to be locally extirpated.	No
Euphydryas editha quino quino checkerspot butterfly	FE MSHCP	—	Occurs in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub habitats. Larval host plants are native species of plantain.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records between 5 and 10 miles from the project site.	No
Neolarra alba white cuckoo bee	—	—	Unknown habitat requirements, but probably inhabits a variety of grassland and scrub habitats. Parasitizes nests of other bees.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three historical records between 5 and 10 miles from the project site.	No
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	FE MSHCP	—	Occurs on fine sandy soils of the Delhi series (primarily Delhi fine sand), often on wholly or partly sand dunes stabilized by sparse native vegetation.	**None.** No suitable habitat is present within the project site due to lack of Delhi series soils and its associated vegetation communities. There are twenty-one recent and nine historical records within 5 miles of the project site, and six historical records between 5 and 10 miles from the project site.	No
Fish					
Catostomus santaanae Santa Ana sucker	FT MSHCP	—	Endemic to Los Angeles basin south coastal streams. Are habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of aquatic features. There are five recent records within 5 miles of the project site.	No
Gila orcuttii arroyo chub	— MSHCP	— SSC	Native to the streams and rivers of the Los Angeles plain in Southern California. Arroyo chub are adapted to survive in streams that fluctuate between large winter storm flows, and low summer flows, and the low dissolved oxygen and	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of aquatic features. There are five historical records within 5 miles of the project site.	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
			wide temperature fluctuations. Feeds on plants such as algae and water fern, as well as insects and mollusks.		
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	FE	—	Occurs in Pacific coast streams, including the Santa Ana River.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of aquatic features. There is one historical record within 5 miles of the project site.	No
Rhinichthys osculus ssp. 8 Santa Ana speckled dace	—	— SSC	Occurs in small springs, streams, large rivers, and deep lakes, including headwaters of the Santa Ana and San Gabriel Rivers.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of aquatic features. There is one historical record between 5 and 10 miles from the project site.	No
Amphibians					
Spea hammondii western spadefoot	— MSHCP	— SSC	Occurs in open areas with sandy or gravelly soils in mixed woodlands, grasslands, coastal sage and Riversidean alluvial fan sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Breeds in ephemeral rain pools that do not contain bullfrogs, fish, or crayfish.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are six recent and one historical records within 5 miles of the project site, and five recent and one historical records between 5 and 10 miles from the project site.	No
Reptiles					
Anniella stebbinsi southern California legless lizard	—	— SSC	Occurs in moist, loose soil in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. Tolerant of disturbances.	**Low.** The project site contains marginally suitable annual grassland habitat; however, the high level of disturbance and presence of man-made barriers make this species unlikely to occur. The regular and recent disking of the project site likely make the area less suitable for occurrence of this species. There are nine recent and four historical records within 5	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
				miles of the project site, and eleven recent and three historical records between 5 and 10 miles from the project site.	
Arizona elegans occidentalis California glossy snake	—	— SSC	Occurs in areas of rocky washes and loose, sandy soils and for burrowing in desert scrub grassland, coastal sage and Riversidean alluvial fan sage scrub, and chaparral habitats. Prefer open sandy areas with scattered brush, but also found in rocky areas.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are five historical records within 5 miles of the project site, and one recent and three historical records between 5 and 10 miles from the project site.	No
Aspidoscelis hyperythra orange-throated whiptail	— MSHCP	— WL	Occurs primarily on coarse soils in open coastal sage and Riversidean alluvial fan sage scrub habitat.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three recent and six historical records within 5 miles of the project site, and three recent and eight historical records between 5 and 10 miles from the project site.	No
Aspidoscelis tigris stejnegeri San Diegan tiger whiptail	—	— SSC	Occurs in dry, open areas with sparse foliage in coastal sage and Riversidean alluvial fan sage scrub, chaparral, woodland, and riparian habitats.	**Low.** The project site contains marginally suitable annual grassland habitat; however, the high level of disturbance and presence of man-made barriers make this species unlikely to occur. There are one recent (from 2016) and one historical records within 5 miles of the project site, and three recent and two historical records between 5 and 10 miles from the project site.	No
Charina umbratica southern rubber boa	— MSHCP	FT	Occurs in rocks and logs or other debris in oak-conifer and mixed-conifer forests at elevations between 5,000 and 8,200 ft.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are four recent and eight historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Coleonyx variegatus abbotti San Diego banded gecko	— MSHCP	— SSC	Prefers rocky areas in coastal sage and chaparral.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent record within 5 miles of the project site.	No
Crotalus ruber red-diamond rattlesnake	— MSHCP	— SSC	Occurs in arid, rocky areas in creosote scrub, coastal sage and Riversidean alluvial fan sage scrub, chaparral, oak and pine woodlands, grasslands, on cultivated areas.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are five historical records within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Phrynosoma blainvillii coast horned lizard	— MSHCP	— SSC	Occurs in open areas with sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three historical records within 5 miles of the project site, and ten historical records between 5 and 10 miles from the project site.	No
Birds					
Accipiter cooperii Cooper's hawk	— MBTA MSHCP	— CFG WL	Occurs and nests in deciduous and mixed forests and open woodland habitats. Year-round resident in southern California, and tolerant of urban areas with an abundance of trees.	**Moderate.** Suitable nesting habitat for this species is present in the ornamental trees on and adjacent to the project site. There are one recent and two historical records between 5 and 10 miles from the project site, with the closest occurrence being over 6 miles from the site.	Yes
Agelaius tricolor tricolored blackbird	— MSHCP	FT SSC CFG	Occurs and nests in large freshwater marshes with dense stands of hydrophytic vegetation (cattails, bulrushes, etc.). Short-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two recent and one historical record within 5 miles of the project site.	No
Aimophila ruficeps canescens	— MSHCP	— CFG WL	Occurs and nests on steep, often rocky hillsides with grass and forb patches in coastal sage and Riversidean alluvial fan sage scrub and sparse	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two recent records within 5 miles of the project site, and seven recent and two	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
southern California rufous-crowned sparrow			mixed chaparral habitats. Year-round resident in southern California.	historical records between 5 and 10 miles from the project site.	
Artemisiospiza belli belli Bell's sage sparrow	— MBTA MSHCP	— WL	Breeds in coastal sagebrush, chaparral, and other open, scrubby habitats in Southern California mountains, deserts and valleys.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent record within 5 miles of the project site, and one recent and one historical records between 5 and 10 miles from the project site.	No
Athene cunicularia burrowing owl	— MSHCP	— SSC CFG	Occurs and nests in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel. Short-distance migrant.	**Moderate.** Suitable burrowing and nesting habitat for this species is present in the form of California ground squirrel burrows within non-native grassland on the project site. Extensive development surrounding the project site and limited availability of habitat on and adjacent to the project site likely make the area less suitable for occurrence of this species; thus potential for occurrence would likely be transient burrowing owls using the site temporarily. There are three known records, from 2006 and 2007, within 5 miles of the project site, and eleven recent and three historical records between 5 and 10 miles from the project site.	Yes
Buteo swainsoni Swainson's hawk	— MBTA MSHCP	FT CFG	Occurs and nests in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site, and the species is believed to be locally extirpated. There are two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT MSHCP	SE	Occurs and nests in riparian forest along the broad lower flood-bottoms of larger river systems. Found in riparian jungles of willow, often mixed with cottonwoods; understory consists of blackberry, nettles, and wild grape. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and two historical records within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Empidonax traillii extimus southwestern willow flycatcher	FE MSHCP	SE	Occurs and nests in dense riparian woodlands. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Eremophila alpestris actia California horned lark	— MBTA MSHCP	— CFG WL	Occurs and nests in open areas with sparse vegetation. Year-round resident in southern California.	**Moderate.** Suitable habitat for this species is present in the non-native grasslands on and adjacent to the project site. There are three historical records between 5 and 10 miles from the project site.	Yes
Falco columbarius merlin	— MBTA MSHCP	— WL	Nests in Canada and Alaska in open and semi-open areas such as grasslands and open forests. Winters in southern California, where it typically forages in open habitats supporting natural vegetation communities.	**Low.** Suitable foraging habitat for this species is not present on or adjacent to the project site. This species may occur on the project site as a forager, and likely only as a transient. There is one recent record within 5 miles of the project site.	No
Icteria virens yellow-breasted chat	— MBTA MSHCP	— SSC CFG	Occurs and nests in riparian thickets of willow and other bushy tangles near watercourses. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and two historical records between 5 and 10 miles from the project site.	No
Lanius ludovicianus loggerhead shrike	— MBTA MSHCP	— SSC CFG	Occurs and nests in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Laterallus jamaicensis coturniculus California black rail	—	FT FP	Occurs and nests in freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Polioptila californica californica coastal California gnatcatcher	FT MSHCP	— SSC CFG	Occurs and nests in arid washes, on mesas, and slopes in coastal sage scrub below 2500 ft. Year-round resident in California.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are seven historical records within 5 miles of the project site, and three recent and nine historical records between 5 and 10 miles from the project site.	No
Setophaga petechia yellow warbler	— MBTA MSHCP	— SSC CFG	Occurs and nests in willow shrubs and thickets, cottonwoods, sycamores, ash, and alders, predominantly in riparian habitats. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and one historical records between 5 and 10 miles from the project site.	No
Spinus lawrencei Lawrence's goldfinch	— MBTA	— CFG	Inhabits and nests in arid, open woodlands and oak trees in chaparral.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and one historical records between 5 and 10 miles from the project site.	No
Vireo bellii pusillus least Bell's vireo	FE MSHCP	SE	Occurs and nests in low riparian habitat in the vicinity of water or in dry river bottoms. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are six recent and two historical records within 5 miles of the project site, and eighteen recent and one historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Mammals					
Antrozous pallidus pallid bat	—	— SSC	Occurs in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Species is very sensitive to disturbance of roosting sites.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Chaetodipus fallax fallax Northwestern San Diego pocket mouse	— MSHCP	— SSC	Occurs in sandy, herbaceous areas, usually in association with rocks or coarse gravel, in coastal sage and Riversidean alluvial fan sage scrub, chaparral, and grasslands.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and two historical records within 5 miles of the project site, and six historical records between 5 and 10 miles from the project site.	No
Dipodomys merriami parvus San Bernardino kangaroo rat	FE MSHCP	CE SSC	Occurs on sandy loam substrates on first terraces and floodplains of washes in Riversidean alluvial fan sage scrub habitat.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. The high level of disturbance, small area of available habitat, and presence of man-made barriers make this species unlikely to occur. There is one historical record within 5 miles of the project site, and eight recent and five historical records between 5 and 10 miles from the project site.	No
Dipodomys stephensi Stephens' kangaroo rat	FE MSHCP	FT	Occurs primarily in annual and perennial grasslands, but also occurs in coastal sage scrub with sparse canopy cover. Can burrow into firm soil.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are nine historical records within 5 miles of the project site, and four recent and nineteen historical records between 5 and 10 miles from the project site.	No
Eumops perotis californicus western mastiff bat	—	— SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and three historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Lasiurus xanthinus western yellow bat	—	— SSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in skirts of dead fronds in both native and non-native palm trees.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and seven historical records between 5 and 10 miles from the project site.	No
Lepus californicus bennettii San Diego black-tailed jackrabbit	— MSHCP	— SSC	Occurs primarily in arid regions with short grass including open grasslands, agricultural fields, and sparse coastal scrub. Nests under bushes or shrubs that have shallow depressions.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. The high level of disturbance, small area of available habitat, and presence of man-made barriers make this species unlikely to occur. There is one historical record within 5 miles of the project site, and eight recent and three historical records between 5 and 10 miles from the project site.	No
Neotoma lepida intermedia San Diego desert woodrat	— MSHCP	— SSC	Occurs in rock outcrops, rocky cliffs, and slopes in coastal sage and Riversidean alluvial fan sage scrub with moderate to dense canopies.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Nyctinomops femorosaccus pocketed free-tailed bat	—	— SSC	Occurs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian habitats. Roosts in caves, crevices, mines, tunnels, and man-made structures.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and two historical records between 5 and 10 miles from the project site.	No
Onychomys torridus ramona southern grasshopper mouse	—	— SSC	Occurs in desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No
Perognathus longimembris brevinasus	— MSHCP	— SSC	Occurs in open areas with fine, sandy soils in lower elevation grasslands and coastal sage and Riversidean alluvial fan sage scrub habitats.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three historical records within 5 miles of the project site, and four recent and	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Los Angeles pocket mouse				four historical records between 5 and 10 miles from the project site.	
Taxidea taxus American badger	—	— SSC	Occurs in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires sufficient food sources (rodents), friable soils, and open, uncultivated ground. Digs large burrows.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site, and one historical record between 5 and 10 miles from the project site.	No

Code Designations

[1] Federal Status: 2020 USFWS Listing			[2] State Status: 2020 CDFW Listing		
ESU	=	Evolutionary Significant Unit is a distinctive population.	**SE**	=	Listed as endangered under the CESA.
FE	=	Listed as endangered under the FESA.	**ST**	=	Listed as threatened under the CESA.
FT	=	Listed as threatened under the FESA.	**SSC**	=	Species of Special Concern as identified by the CDFW.
FC	=	Candidate for listing (threatened or endangered) under FESA.	**FP**	=	Listed as fully protected under FGC.
FD	=	Delisted in accordance with the FESA.	**CFG**	=	FGC =protected by FGC 3503.5
FPD	=	Federally Proposed to be Delisted.	**CE**	=	Candidate endangered under the CESA.
MBTA	=	protected by the Migratory Bird Treaty Act	**WL**	=	CDFW Watch List
—	=	Not federally listed	**—**	=	Not state listed

Notes:
[3] Habitat Description: Habitat description adapted from CNDDB or other specified source
[4] Potential to Occur and Rationale: Location of recorded species occurrences determined by geospatial information from BIOS 5 or other specified source.
Sources:
California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 21, 2022.
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Appendix C:
Phase I Cultural Resources Assessment

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FIRSTCARBONSOLUTIONS™

Phase I Cultural Resources Assessment
Palmyrita Avenue Warehouse Project
City of Riverside, Riverside County, California

San Bernardino South, California USGS 7.5-minute Topographic Quadrangle Map
Township 2 South, Range 4 West, Section 7
Assessor's Parcel Number (APN) 247-170-030 and -039

Project Applicant:
Dedeaux Properties
100 Wilshire Boulevard, Suite 250
Santa Monica, CA 90401

Contact: Benjamin M. Horning, Director of Development

Lead Agency:
City of Riverside
3900 Main Street, 3rd Floor
Riverside, CA 92522

Contact: Regine Osorio, Associate Planner

Prepared by:
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967 Kendall Drive, #A-537
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Report Authored by: Natalie Adame
Fieldwork Conducted by: Kweku Williams, MA, RPA

Date: October 21, 2022
Updated: March 24, 2023

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MANAGEMENT SUMMARY

At the request of Dedeaux Properties (project applicant), FirstCarbon Solutions (FCS) conducted a Phase I Cultural Resources Assessment (Phase I CRA) for the proposed Palmyrita Avenue Warehouse Project (proposed project) located in Riverside County, California. The purpose of this assessment is to identify the presence or absence of potentially significant cultural resources within the project site and, if present, propose recommendations for mitigation. Completion of this investigation fulfills the requirements associated with the California Environmental Quality Act (CEQA) Guidelines. This report follows the California Office of Historic Preservation (OHP) procedures for cultural resource surveys and the OHP Archaeological Resource Management Report (ARMR) format for archaeological reports. This report is also intended to fulfill any City of Riverside cultural resources survey and reporting guidelines.

On September 9, 2022, a records search was conducted at the Eastern Information Center (EIC) located at University of California, Riverside, for the project site and a 1-mile radius beyond the project boundaries. The current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for Riverside County were also reviewed to determine the existence of previously documented local historic resources. The results of the records search indicate that one historic resource, P-33-016650, has been recorded within the project boundaries and 97 cultural resources have been recorded within the 1-mile search radius. In addition, 65 area-specific survey reports are on file within the 1-mile radius, three of which (RI-03693, RI-07355, and RI-08771) partially address the project site. This indicates that the project site has been partially surveyed for cultural resources.

On August 9, 2022, FCS sent a request to the Native American Heritage Commission (NAHC) in an effort to determine whether any sacred sites are listed on its Sacred Lands File (SLF) for the project site. A response was received on September 15, 2022, indicating that the SLF search produced a positive result for Native American cultural resources within the project site. The NAHC included a list of 34 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential Tribal Cultural Resources (TCRs) that may be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on September 15, 2022. Response from the Gabrieleño Tongva Indians of California were received on September 16, 2022, indicating that the tribe had no comment. On September 19, 2022, the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) replied indicating that the proposed project is not located near any known Serrano resources. A reply from the Augustine Band of Cahuilla Indians was received on September 22, 2022, indicating that they are unaware of any cultural resources that may be affected by the proposed project, but would like to be contacted in the event that cultural resources are uncovered during the development of the proposed project. On October 6, 2022, a response was received from the Agua Caliente Band of Cahuilla Indians requesting a copy of the cultural resource inventory and EIC results. On October 17, 2022, a response from the Rincon Band of Luiseño Indians indicating that the tribe has no TCRs within the project area, but are available for consultation if needed. No additional responses have been received to date.

On September 9, 2022, FCS Staff Archaeologist Kweku A Williams MA, RPA conducted a pedestrian survey for unrecorded cultural resources at the project site. The survey began on the southeast corner of the project site and moved west, using north–south transects spaced at 15-meter intervals wherever possible. All areas of proposed development were closely inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. Mr. Williams examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, toolmaking debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). In addition, the project site was inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. This includes raw materials commonly used in the manufacture of tools such as obsidian, Franciscan chert, etc. The majority of the site was hardscaped and contained a large undeveloped area which was not accessible due to barbed wire fencing and concrete walls. Additionally, the survey revealed a structure more than 45 years in age, which has not been previously evaluated. No additional prehistoric or historic resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert, etc.) were found within the project site.

The project site contains one potentially historic built environment resource that is 47 years in age, that has not previously been evaluated for historic significance. The industrial building was recorded and evaluated for historic significance on the appropriate set of California Department of Parks and Recreation (DPR) form in consideration of CRHR designation criteria and integrity requirements. The industrial building identified during the pedestrian survey was evaluated and found not eligible under all State and local designation criteria due to a lack of significant historic association or architectural merit and integrity.

Based on the results of the records searches, archival research, the positive results from the NAHC SLF search for TCRs, tribal correspondence, the pedestrian survey, and Architectural and Historical Assessment, FCS considers the potential for the proposed project to have an adverse effect on historic or prehistoric cultural resources to be moderate. No cultural resources were identified during the record search; however, a single industrial structure more than 45 years in age that has not been previously evaluated was identified during the pedestrian survey. The subsequent architectural assessment determined that the industrial structure identified during the pedestrian survey was ineligible for inclusion in the CRHR.

FCS therefore recommends that all construction personnel directly involved with project-related ground disturbance attend a “tailgate” Worker Environmental Awareness Program (WEAP) training for archaeological resources. The training should include visual aids, a discussion of applicable laws and statutes relating to archaeological resources, types of resources that may found within the project site, and procedures to be followed in the event such resources are encountered. The training should be conducted by an Archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology. In addition, FCS recommends that an Archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology, be present during the initial grading of the site to check for the inadvertent exposure of cultural materials. In the event exposed soils indicate cultural materials may be present, this may be

followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time.

Additional recommended procedures for the inadvertent discovery of archaeological resources or human remains are included in this report.

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SECTION 1: INTRODUCTION

1.1 - Project Location

The approximately 13.60-acre project site is located at 1151 Palmyrita Avenue in the City of Riverside, Riverside County, California (Exhibit 1). The project site is located on the *San Bernardino South, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map, Township 2 South, Range 4 West, Section 7 (Exhibit 2). The project site is bounded to the east by railroad tracks; Palmyrita Avenue to the south; Iowa Avenue to the west; and railroad tracks, large warehouse, and a vacant lot to the north. The project site is currently used for a small-scale manufacturing facility occupied by Barrette Wood USA and Barrette Outdoor Living in an existing warehouse building on the west side of the project site (Exhibit 3).

1.2 - Project Description

The proposed project involves the construction of two new warehouse buildings (Building 1 and Building 2) under two scenarios: a 100 percent warehousing scenario (Scenario 1), and a 75 percent warehousing and 25 percent manufacturing scenario (Scenario 2). This Phase I CRA analyzes construction of the warehouse buildings under both scenarios.

1.2.1 - Scenario 1

Under Scenario 1, Building 1 would total 139,667 square feet, and consist of a 132,167-square-foot warehouse, 4,000-square-foot first floor office, and 3,500-square-foot second floor office (Exhibit 3a). Building 1 would include 125 standard parking stalls, four Americans with Disabilities Act (ADA) standard stalls, two ADA van stalls, one electric vehicle (EV) ADA standard stall, one EV ADA van stall, 16 EV standard stalls, three Clean Air/Vanpool/EV stalls, and 10 parallel parking stalls, for a total of 162 parking stalls.

Building 2 would total 126,091 square feet, and consist of a 116,691-square-foot warehouse, 5,000-square-foot first floor office, and 4,400-square-foot second floor office, . Building 2 would include 126 standard parking stalls, four ADA standard stalls, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 155 stalls. The square footage of both buildings would total 265,758 square feet, with combined parking of 317 parking stalls.

1.2.2 - Scenario 2

Under Scenario 2, Building 1 would total 122,315 square feet and consist of an 88,736-square-foot warehouse with 30,579 square feet of manufacturing uses and a 3,000-square-foot first floor office(Exhibit 3b). Building 1 would include 168 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and three Clean Air/Vanpool/EV stalls, for a total of 195 stalls.

Building 2 would total 122,127 square feet and consist of an 88,595-square-foot warehouse with 30,5932 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 2 would include 159 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 188 stalls. The square footage of both buildings would total 244,442 square feet, with combined parking of 383 parking stalls.

Circulation

Access to the site would be provided via two driveways, one 40-foot driveway and one 30-foot driveway along Palmyrita Avenue, and one 35-foot driveway along Iowa Avenue.

The main freight truck entrance/exit to the proposed warehouse would be from Palmyrita Avenue; the main passenger vehicle entrance would be from Iowa Avenue. It is conservatively assumed the building would operate 24 hours a day, 7 days per week, with the exception of some holidays. The proposed project is anticipated to employ no more than 236 employees. The proposed project would include roadway and frontage improvements along Palmyrita Avenue and Iowa Avenue, as well as the construction of a raised median along Iowa Avenue. Improvements to Palmyrita Avenue and Iowa Avenue would total approximately 0.56 acre.

Water Quality Management Plan

The proposed project would include two Low Impact Development (LID) Best Management Practices (BMPs), generally one each for Building 1 and Building 2, along with CDS® clarifiers for pre-treatment. Each bioretention/biotreatment system would be situated west of each building and would capture and treat runoff from the project site.

The proposed project would also implement source control BMPs to mitigate potential runoff pollutants from landscaping/outdoor pesticide use, refuse areas, condensate drain lines, and plazas, sidewalks, loading docks and parking lots. Proposed source control BMPs include permanent structural BMPs such as implementing landscaping which maximizes groundcover and promotes infiltration, minimizes use of fertilizers and utilizes plants that are tolerant of saturated soil conditions. Refuse areas will be maintained and emptied by a qualified contracted waste management company, or the City. Equipment condensate lines would drain to the sanitary sewer. Operational source control BMPs include the proper disposal of green waste from landscaping maintenance and the provision of Pest Management Information, regular inspection and maintenance of refuse receptacles, and regular sweeping of plazas, sidewalks, and parking lots to prevent debris from entering the storm drain system.

Landscaping

The proposed project would include 84,581 square feet of landscaping under Scenario 1 and 104,694 square feet of landscaping under Scenario 2. Landscaped areas would occur around the perimeter of the site and throughout the parking areas. Landscaping would consist of a variety of trees, shrubs, and groundcover, including Blue palo verde, desert willow, chitalpa, Canary Island pine, Chinese pistache, coast live oak, African sumac, Brisbane box, street trees, pineapple guava, dwarf bottle brush, silverleaf cassia, dwarf dianella, dianella, fortnight lily, Texas privet, rosemary, autumn sage,

Mexican sage, coast rosemary, dwarf coast rosemary, blue flame agave, blue glow agave, coral aloe, red yucca, dwarf acacia, dwarf coyote bush, prostrate natal plum, and prostrate rosemary. Landscaping for the proposed project would be designed in accordance with the State mandated Assembly Bill (AB) 1881 Water Efficient Landscape Ordinance and the City of Riverside Municipal Code Chapter 19.570 – Water Efficient Landscaping and Irrigation.[1,2]

Building Elevations and Design

The maximum building height of the proposed buildings would be 42 feet for Scenario 1 and 41 feet for Scenario 2. Buildings would be composed of tilt-up concrete material, with blue glass, medal cladding, clear anodized mullions, and include muted earth tones such as bronze, white, gray, and beige. The design of the proposed project would be consistent with the Riverside Citywide Design Guidelines[3] and Good Neighbor Guidelines for Industrial Facilities.[4] Rooftop mechanical units, including heating, ventilation, and air conditioning (HVAC) systems, would be screened away from public view from adjacent streets.

Walls/Fences

The proposed project would include a retaining wall at the southwest, northwest, and southeast portions of the site, as well as within some portions of the site. This retaining wall would be 3 feet high when visible from the public right-of-way and 6 feet high when not visible from the public right-of-way. An 8-foot high tubular steel fence is proposed along the northern portion of the site, which would screen the project from the existing railroad tracks adjacent to the site. a 14-foot-high tilt up concrete screen wall is proposed at the northeast corner of the site, along with an 8-foot-high tilt up concrete screen wall to the east, adjacent to the railroad tracks that abut the site to the east. In addition to the 8-foot high concrete screen wall, 14-foot-high landscaping would further screen the site from the adjacent railroad.

Additionally, 8-foot-high metal gates would also be located within the site to provide controlled access to various areas of the project.

Outdoor Storage of Trucks and Screening

As mentioned above, a mix of fencing, walls, and landscaping would be located around the site perimeter to screen the proposed project from the adjacent roadways and railroad.

Construction and Phasing

The following construction schedule was assumed for the purposes of this environmental analysis. The proposed project would be constructed in a single phase beginning in the fourth quarter of

[1] California Department of Water Resources. 2023. Model Water Efficiency Landscape Ordinance. Website: https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance. Accessed January 18, 2023.

[2] City of Riverside. 2022. City of Riverside Code of Ordinances, Chapter 19.570 Water Efficient Landscaping and Irrigation.

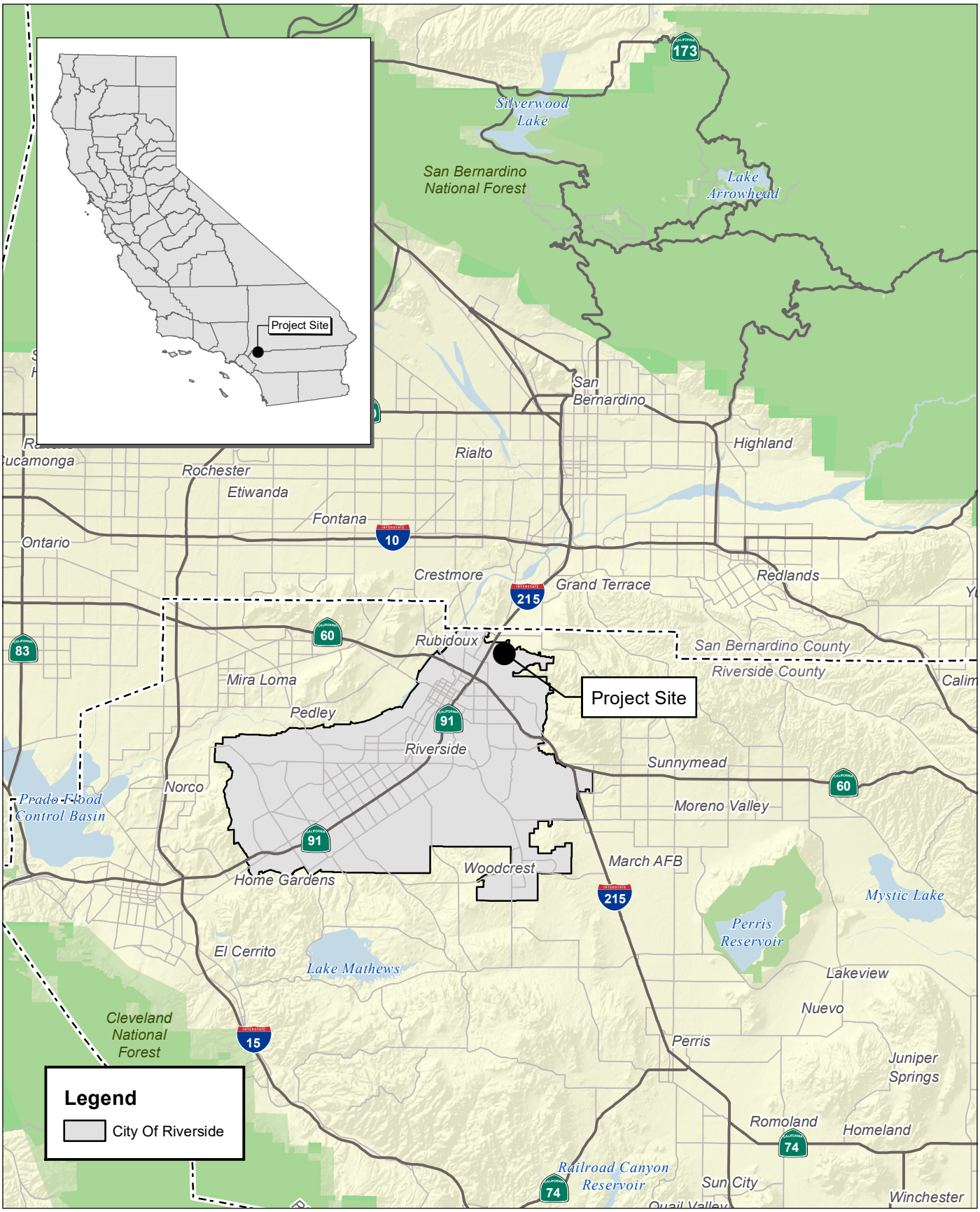
[3] City of Riverside. 2019. Riverside Citywide Design Guidelines. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/Citywide_Design_and_Sign_Guidelines_web%20version_Amended%2001-15-19_1.pdf. Accessed February 10, 2023.

[4] City of Riverside. 2020. Good Neighbor Guidelines for Industrial Facilities. Website: https://riversideca.gov/cedd/sites/riversideca.gov.cedd/files/pdf/planning/2021/Good%20Neighbor%20Guidelines.pdf. Accessed February 10, 2023.

2023. Demolition and grading would occur within the first month of construction, and the proposed project is expected to be operational in the third quarter of 2024.

1.3 - Assessment Team

FCS Archaeological Field Manager Natalie Adame authored this report and Kweku Williams, M.A, RPA conducted the pedestrian survey. Ms. Adame and Mr. Williams exceed the professional standards set for their respective roles by the Secretary of the Interior. Professional qualifications for Ms. Adame and Mr. Williams can be found in Appendix A.

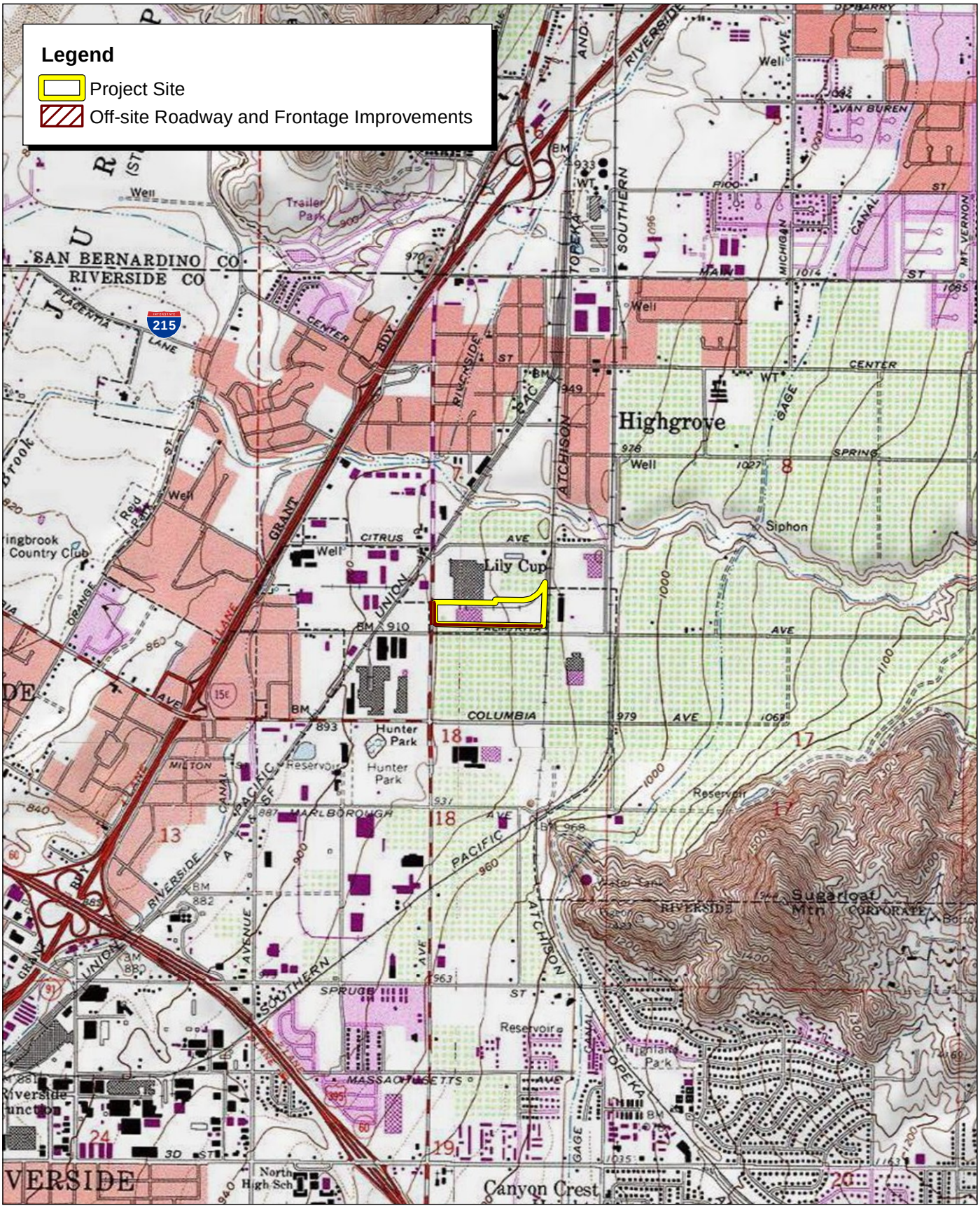


Source: Census 2000 Data, The California Information Library (CaSIL).

FIRSTCARBON SOLUTIONS™

Exhibit 1
Regional Location Map

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Source: USGS San Bernardino South 7.5' Quadrangle / T02S,R04W,sec07.

FIRSTCARBON SOLUTIONS™

2,000 1,000 0 2,000 Feet

Exhibit 2
Local Vicinity Map
Topographic Base

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Source: Bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

1,000 500 0 1,000 Feet

Exhibit 3
Local Vicinity Map
Aerial Base

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SECTION 2: CULTURAL SETTING

The following is a brief overview of the prehistoric and historic background of the general area, which provides context to understand the relevance of resources found in the general project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview.

Further details can be found in the ethnographic studies, mission records, and major published sources, including Beardsley (1948 and 1954), Bennyhoff (1950), Fredrickson (1973), Kroeber (1925), Moratto (1984), Chartkoff and Chartkoff (1984), Heizer (ed. 1978), and Jones and Klar (2007).

2.1 - Prehistoric and Ethnographic Background

Fagan (2003), Moratto (1984), and Chartkoff and Chartkoff (1984) provide recent overviews of California archaeology and historical reviews of the inland Southern California among other locales. An early and widely used regional chronology for coastal Southern California is Wallace's four-part Horizon format (1955), which was later updated and revised by Warren (1968) and more recently by Chartkoff and Chartkoff (1984) and King (1990 and 2000). The sequence provides a framework that relates societal change to change in material culture; the advantages and weaknesses of Southern California chronological sequences are reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (ed. 1978).

2.1.1 - Paleo Indians

In North America, radiocarbon dates from existing samples of archaeological materials demonstrate human presence as early as 15,000 years Before Present (BP) (Waters et al. 2018). The lithics from the earliest (14,000 to 15,000 BP) documented sites in North America include cores, flakes, and flake tools with an absence of projectile points (Waters et al. 2011, 2018). The first known projectile points in North America are from 13,000 years BP, with lanceolate fluted points (Clovis Complex) in sites from central and eastern North America and stemmed projectile points from sites in areas of western North America that were not glaciated (Jenkins et al. 2012; Beck and Jones 2010). Glennan (1972) provides an early study of the hypothesis of Pre-Clovis in Southern California. The oldest California radiocarbon date as of 2007 from archaeological materials confirms a human presence in the northeastern part of the State (from site CA-SIS-218) as early as 13,500 years BP (Jones and Klar 2007). The radiocarbon date corresponds to the period of fluted points and fluted points have been found throughout California (Rondeau et al. 2007; Rondeau 2009), although projectile points and other chronologically and culturally informative materials are absent from the SIS-218 sample.

2.1.2 - Archaic Period

During the early Post-Glacial Period, after 8,500 BP, the Southern California climate became warmer and drier (Fagan 2003). Groundstone artifacts that include manos and metates correspond to the Early Period. The Early Period in Southern California begins as early or earlier than 8,000 BP and ends by about 2,800 BP (King 1990). The Early Period corresponds to the earliest known sites in Southern California with year-round habitation and cemeteries. Manos and metates consist of a variety of

types. Mano and metates of the Early Period in Southern California, correspond to types from studies in the U.S. Southwest that efficiently grind small, oily annual and biennial wild seeds (Adams 1999; Ciolek-Torello 1995; Gilman 1988; Lancaster 1984; Whittlesey 1995). Most annual and biennial wild seed plant types in Southern California are best adapted for warm and dry environments (e.g., Hemizonia fasciculata, which is a summer seed source). Annual and biennial seed crops are highly reliable, nutritious, and productive. Annual and biennial seed producers are also diverse and afford reliable seed production throughout the year. Compared to later periods, utilitarian artifacts are most frequently found with Early Period burials.

Manos and metates are "kitchen tools" and concentrate within residential areas of Early Period habitation sites in Southern California (King and Merrill 2002; Merrill 2015). Other kinds of lithics that correspond to the Early Period include many kinds of core tools (e.g., hammers, choppers, and scraper planes), knives, bifaces, scrapers (many types), gravers, burins, dart points, and compound bone fishhooks. Sedentism apparently increased in areas with abundant resources that were available for longer periods. Arid inland regions and offshore desert islands (e.g., San Nicolas Island) provided less opportunity for long-term residence without trade and possibly for more mobile subsistence. The Early Period ends about 2,800 BP (King 1990).

Mark Q. Sutton, Professor Emeritus of Anthropology at CSU Bakersfield, has identified a regional complex called the Greven Knoll Complex. This complex is reimagined from the work completed by Sutton and Jill Gardener (2010) which focused on the Encinitas Tradition. Their research indicates that the archaeological record of the early millingstone was not formally given a name but was regularly referred to as the "Inland Millingstone," "Encinitas," or "Topanga" (Sutton and Gardner 2010; Garrison and Smith 2021). They proposed that the inland milling stone north of San Diego County be combined within the Greven Knoll Complex. This complex consists of three phases, and it is named after the type-site Greven Knoll that is located in Yucaipa, California. Both the Greven Knoll site and the Simpson site are a part of the Yukaipa't Site (SBR-1000). The Greven Knoll site was approximately occupied between 5,000 and 3,000 BP. Phase I of the complex mainly contained material culture such as hammerstones, core tools, manos and metates, dart points, and cremations. However, in this phase, mortars and pestles are absent. Sutton and Gardener have concluded that this phase appeared approximately 9,400 to 4,000 BP. Phase II is the period between 4,000 to 3,000 BP, and the material culture identified in this phase consists of core tools, discoidals, and manos and metates. The difference in this phase is the minimal presence of mortars and pestles. Phase III is similar to Phase II and includes hammerstones, choppers, scraper planes, manos and metates, Elko points, and discoidals. This phase is the period between 3,000 to 1,000 BP and demonstrates the dependence upon yucca and seeds. All three phases emphasized hunting as part of the subsistence economy. The processing of food technology does vary among the phases as it shifted from hunting to more of a plant-based diet. This may have been a result of the development of the mortars and pestles, as well as the climate (warm and dry) changes that caused tribal groups to migrate toward the coast (Garrison and Smith 2021).

2.1.3 - Middle Period

The Middle Period lasted from about 2,800 BP to 750 BP (King 1990). Excavated assemblages retain many attributes of the Early Period but with more diverse artifact types. Middle Period sites can

contain large-stemmed or notched small projectile points suggestive of bow and arrow use, especially near the end of the period, and the use of portable grinding tools continued. Intensive use of mortar and pestles signaled processing of acorns as the primary vegetative staple as opposed to a mixed diet of seeds and acorns. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this period are well understood, but it is very likely that the nomadic ways continued. It has been proposed that sedentism increased with the exploitation of storable food resources, such as acorns, but coastal sites from the Period exhibit higher fishing activity than in previous periods. The first permanently occupied villages make their appearance in this period (Chartkoff and Chartkoff 1984).

2.1.4 - Late Prehistoric

Extending from 750 BP to Spanish Contact in 1769, the Late Prehistoric includes changes in trade networks and political and secular economic subsystems. There was also a differentiation of types of political economies. Exploitation of marine resources continued to intensify. Assemblages characteristically contain projectile points, and toward the end of the period the size of the points decreased and notched and stemmed bases appeared, which implies the use of the bow and arrow. Use of personal ornaments such as shell beads, were widely distributed east of the coast, suggesting well-organized and codified trade networks. Additional assemblages in this period included steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. The use of bedrock milling stations was widespread during this Horizon. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Village size increased during this time, and some of these villages may have held 1,500 or more residents (Chartkoff and Chartkoff 1984). Analyses of skeletons showed that the first signs of malnutrition appeared in this period, signaling greater competition for food resources (Fagan 2003).

The earliest part of this period may have seen an incursion of Cupan-Takic speakers from the Great Basin (the “Shoshonean wedge” of Kroeber 1925) may have replaced the Hokan speakers in the area. At the time of Spanish conquest, Cupan-Takic speakers were distributed throughout Orange County, western Riverside County, and the Los Angeles Basin (Gabrieleño, Juaneño, and Cahuilla peoples). Serran-Takic speakers are now represented by the Serranos in the San Bernardino Mountains. Recent work (O’Neil 2002) suggests that the “Shoshonean wedge” is misnamed—the original Los Angeles inhabitants replaced by the incoming Takic-speakers may have been Yuman speakers (similar to those in the California Delta region of the Colorado River) and not Hokan Salinan-Seri (Chumash) speakers as was suggested by Kroeber. The Takic branch consists of seven languages that are divided into three sub-branches, and they are as follows: Serrano, Gabrieleño, and Luiseño-Cahuilla. The sub-branches are separated into two branches, Serran and Cupan. The Cupan branch is divided into two groups: the Luiseño/Juaneño and the Cahuilla/Cupeno. The Serran sub-branch is located in the northern portion of the Takic territory, and the Cupan sub-branch is located in the southern portion of the territory (Sutton 2009).

At the time of Spanish conquest, local indigenous groups were composed of constantly moving and shifting clans and cultures. Early ethnographers applied the concept of territorial boundaries to local indigenous groups purely as a conceptualization device, and the data was based on fragmented information provided to them from second-hand sources. At least four Native American groups, the

Gabrieleño (Tongva), Luiseño, Cahuilla, and Serrano, are known to have occupied or utilized resources within the vicinity of the project site at different points in history. A brief overview of the tribal groups follows.

2.2 - Native American Background

2.2.1 - The Tongva (or Gabrieleño)

Ethnographic accounts of Native Americans indicate that the Tongva (or Gabrieleño) once occupied the region that encompasses the project area. At the time of contact with Europeans, the Tongva were the main occupants of the southern Channel Islands, the Los Angeles Basin, much of Orange County, and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the group's association with Mission San Gabriel Arcángel, established in 1771. However, today the group prefers to be known by their ancestral name, Tongva. The Tongva are believed to have been one of the most populous and wealthy Native American tribes in Southern California prior to European contact, second only to the Chumash (Bean and Smith 1978; McCawley 1996; Moratto 1984).

The Tongva occupied numerous villages with populations ranging from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Tongva society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources (Bean and Smith 1978; McCawley 1996; Miller 1991). Vegetable staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes, and the Tongva also fished (Bean and Smith 1978; McCawley 1996; Miller 1991).

By the late eighteenth century, Tongva population had significantly dwindled due to the introduction of diseases and dietary deficiencies. Tongva communities near the missions disintegrated as individuals succumbed to Spanish control, fled the region, or died. Later, many of the Tongva fell into indentured servitude to Anglo-Americans. By the early 1900s, few Tongva people had survived and much of their culture had been lost (Bean and Smith 1978; McCawley 1996; Miller 1991). However, in the 1970s, a revival of the Tongva culture began which continues today with growing interest and support.

2.2.2 - The Cahuilla

The project area is located in the region known to have been occupied by the Cahuilla Indians. Cahuilla territory was bounded on the north by the San Bernardino Mountains, on the east by the Orocopia Mountains, on the west by the Santa Ana River, the San Jacinto Plain, and the eastern slope of the Palomar Mountains, and on the south by Borrego Springs and the Chocolate Mountains (Bean 1978).

The diversity of the territory provided the Cahuilla with a variety of foods. It has been estimated that the Cahuilla exploited more than 500 native and non-native plants (Bean and Saubel 1972). Acorns, mesquite, screw beans, piñon nuts, and various types of cacti were used. A variety of seeds, wild

fruits and berries, tubers, roots, and greens were also a part of the Cahuilla diet. A marginal agricultural existence provided corn, beans, squashes, and melons. Rabbits and small animals were also hunted to supplement the diet. During high stands of Ancient Lake Cahuilla, fish, migratory birds, and marshland vegetation were also taken for sustenance and utilitarian purposes (Bean 1978).

Structures within permanent villages ranged from small brush shelters to dome-shaped or rectangular dwellings. Villages were situated near water sources, in the canyons near springs, or on alluvial fans at man-made walk-in wells (Bean 1972). Mortuary practices entailed cremation of the dead. Upon a person's death, the body was bound or put inside a net and then taken to a place where the body would be cremated. Secondary interments also occurred. A mourning ceremony took place about a year after a person's death. During this ceremony, an image of the deceased was burned along with other goods (Lando and Modesto 1977; Strong 1929). Precontact Cahuilla population has been estimated as low as 2,500 to as high as 10,000. At the time of first contact with Europeans, around 1774, the Cahuilla numbered approximately 6,000. Although they were the first to come into contact with the Cahuilla, the Spanish had little to do with those of the desert region. Some of the Cahuilla who lived in the plains and valleys west of the desert and mountains, however, and were missionized through the asistencia located near present-day San Bernardino. Cahuilla political, economic, and religious autonomy was maintained until 1877, when the United States government established Indian reservations in the region. Protestant missionaries came into the area to convert and civilize the Native American population. During this era, traditional cultural practices, such as cremation of the dead, were prohibited. Today, the Cahuilla reside on eight separate reservations in Southern California, located from Banning in the north to Warner Springs in the south and from Hemet in the west to Thermal in the east (Bean 1978).

2.2.3 - The Luiseño

Of all the Southern California native groups, the Luiseño have been the most ethnographically studied and the literature is rich in detail. This tribe was once affiliated with the San Luis Rey Mission at Oceanside, California. Historically, the Luiseño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family, a language family that includes the Shoshonean groups of the Great Basin. The Luiseño occupational areas encompass over 1,500 square miles of Southern California (Bean and Shipek 1978; Kroeber 1925) as well as the Channel Islands (Sparkman 1908). Luiseño villages were found along the Pacific Ocean from Agua Hedionda on the south to Aliso Creek on the northwest in present-day Orange County. Their territory extended inland to Santiago Peak, to the eastern side of the Elsinore Fault Valley, moving southward to the east of Palomar Mountain, then to the southern slope above the Valley of San Jose, and finally returning to the sea along the Agua Hedionda Creek (Kroeber 1925). The villages were determined according to their proximity to a defined water source, access to a food-gathering locale, and whether they were situated in a defendable location (Bean and Shipek 1978). Spatially, these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically lived in sedentary and autonomous village groups. Ownership, whether tangible or intangible, ranged from communal to personal property that was either owned by the chief, an individual, a family, or by a group of individuals; therefore, one clan or family occupied several food-

gathering locations and aggressively guarded these areas against other clans (Bean and Shipek 1978; Sparkman 1908; Strong 1972).

Luiseño thatched house structures were constructed of reeds, brush and/or bark, and any other locally available materials. The houses had a slightly conical roof with a floor that was usually excavated 2 feet below ground surface. All homes were built with a small fire pit in the center and a slight smoke hole in the roof just above the fire (Bean and Shipek 1978; Kroeber 1925). These house structures were known by the Spanish term ramadas. Variations of larger structures, such as ceremonial structures known as ”wamkis,” were typically constructed with forked posts supporting wood ceiling beams and were completely covered in thatch, which was lightly mixed with sand or soil. Ceremonial structures were located within the center of the village and enclosed with fencing. Raised altars with a skin and feather image upon them would sometimes be in the ceremonial area. Sweat houses were of similar thatch design to that of the smaller house pattern but varied in construction in these stood on two forked posts connected by log and were shaped like an ellipse, with an entrance on one of the longer sides of the structure covered with a layer of mud.

The pottery associated with the Luiseño is made for functionality; consequently, it is a simple construction and tends to lack in ornamental design, although Bean and Shipek (1978) note that if designs were included, “a simple line decoration was either painted or incised with a fingernail or stick.” Luiseño made pots from the basis of a coil form, in which pieces of coiled clay are gradually added to the edge of the pot while it is being shaped with a wooden paddle, and finished with a polishing stone. After completion, the pot is sunbaked and fired (Sparkman 1908). Typical uses of pottery were for cooking, water jugs, containers, and a water vessel with two spouts used while members were gathering food (Sparkman 1908). Plant fibers were also commonly used for purposeful household implements, such as brooms, brushes, nets, pouches twine, and cedar bark skirts for women. The process of creating such items from plant fiber tends to rely on soaking, stretching, and then rolling the fiber (Sparkman 1908; Bean and Shipek 1978).

Ceremony and ritual were of great importance to all native peoples, and the Luiseño had their own variety of traditional practices. Frequently practiced ceremonies include multiple rituals for the mourning of the dead, the eagle dance, separate ceremonies for the initiation of boys and girls, and a summer and winter solstice celebration (Kroeber 1925; Sparkman 1908; Strong 1972). These ceremonies offered gatherers an opportunity to witness reenactments, songs, and the oral recitation of their history (Garbarino and Sasso 1994). Equipment important during rituals included blades made of obsidian, stone bowls, clay figurines, and headdresses constructed of eagle-feathers (Bean and Shipek 1978). Ritual dances were limited to only three standard dances such as the fire dance, which was used during the Toloache Cult initiation for boys at puberty. Also of great significance during the boys’ initiation were masterfully designed sand paintings, once thought to have originated in the Southwest, though presently culturally identified with the Luiseño (Bean and Shipek 1978; Garbarino and Sasso 1994; Kroeber 1925). Although not necessarily limited to ritual, the Luiseño of Riverside County decorate their rock designs in the same form as that of the native peoples of the Great Basin, which appears as pecked abstracts displayed on boulders.

Personal adornment was a common practice among the Luiseño. Ornamental items such as beads and pendants were made of clay, shell, stone, deer hooves, bear claws, and mica sheets. Men would

wear ear and nose ornaments, sometimes made of bone or cane with beads attached. Body painting and tattooing was used purely for rituals (Bean and Shipek 1978).

The Luiseño encountered Europeans as early as 1796 with the arrival of the Gaspar de Portola expedition. The rapid decline of the population began with the spread of European diseases and ideas, coupled with the living conditions in the missions and the ranchos. Many coastal village people were moved into missions, and Indians from distant villages were moved into the San Juan Capistrano Mission, where they taught, among many other things, the Spanish language, the Roman Catholic faith, and European crafts. San Luis Rey Mission's policy was to continue to maintain the settlement pattens of the Luiseño. When the missions became secularized in 1834, political imbalance resulted in Indian revolts and uprisings against the Mexican rancheros. Many Indians left the ranchos and missions and joined more inland groups. Some acquired land grants and entered the conventional Mexican culture (Bean and Shipek 1978).

2.2.4 - The Serrano

Ethnographic accounts indicate that the Serrano were another group of Native Americans in the region that includes the project area. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north to Victorville, and south to the Yucaipa Valley. The Serrano were mainly hunters and gatherers who occasionally fished. Game that was hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978). Settlement locations were determined by water availability, and most Serrano's lived in small villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats (Kroeber 1925). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might include granaries and sweathouses (Bean and Smith 1978).

The Serrano were loosely organized along patrilineal lines and associated themselves with either the Tukum (wildcat) or the Wahilyam (coyote) moiety. Organization of individual bands of Serrano was considered by Kroeber (1925) to be similar to political groups. Tribes, as opposed to bands, were larger in numbers, and were distinguished from each other by having distinct dialects. Unlike bands, tribes often had names that were more than merely a designation for the place where they lived (Kroeber 1925). Partly due to their mountainous inland territory, contact between Serrano and European Americans was minimal prior to the early 1800s. In 1819, a Capilla (chapel) was established near present-day Redlands and was used to help relocate many Serranoes to Mission San Gabriel. However, small groups of Serranoes remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

2.3 - Regional Historic Background

2.3.1 - Spanish and Mexican Exploration and Settlement

The Spanish Period (1769-1821)

The first Europeans to traverse the territory that constitutes modern Riverside County were Spanish soldier Pedro Fages and Father Francisco Garcés. This expedition to locate deserting soldiers eventually brought the group through the foothills of the San Jacinto Mountains, along Coyote Canyon, on the southern edge of Riverside County. They then continued into the Anza Valley, the San Jacinto Valley, Riverside and eventually into San Bernardino and the Cajon Pass. Later, in 1774, Captain Juan Bautista de Anza would also utilize Coyote Canyon and enter the confines of modern Riverside County as his expedition searched for an overland route from Sonora to coastal Southern California. These expeditions sparked an influx of non-natives to Southern California, and the first of these groups were the Spanish. Associated with the Spanish migration is the establishment of missions and military presidios along the coast of California. Although neither the missions nor presidios were ever located within the confines of modern Riverside County, their influence was far reaching. Land belonging to Mission San Gabriel extended to inland Southern California, east of the periphery of the Coachella Valley. Mission officials then converted portions of these holdings into ranchos during the Mexican period. Several ranchos were located in modern Riverside County, and the project area is located in the Jurupa Rancho.

The Mexican Period (1821-1848)

Administration of the Southern California ranchos shifted to Mexican hands about 1824, but effective control did not occur until the early 1830s. Once the ranchos were secularized, the Mexican administrators began granting vast tracts of the original Mission properties to members of prominent families who had helped cut ties from the Spanish system. In 1838, title to the Mission San Gabriel's outpost in this area, the Jurupa Rancho, was granted to Juan Bandini, the appointed administrator of the Mission San Gabriel. This land grant was the first officially recognized Mexican land grant within modern Riverside County. The Jurupa Rancho consisted of roughly 30,000 acres, bounded by the Jurupa Hills to the north, the Santa Ana River to the south and east, and the Chino Rancho to the west.

During the period of the Mexican ranchos, rancho owners were constantly harassed by thieves and native groups from the Mojave region. Groups whose intent was to steal horses and cattle often attacked the northern part of the Rancho San Bernardino, so that Juan Bandini donated the very northeastern portion of the Jurupa Rancho for resettlement in 1842. By 1843, Bandini further fragmented the Jurupa Rancho, selling a sizable portion to Benjamin D. Wilson, who then sold the property known as Jurupa (Rubidoux) Rancho to Louis Rubidoux in 1847. The Rancho would be further divided within the upcoming decade.

2.3.2 - Riverside County

Riverside County is the fourth largest county in California in both size and population. It is 7,206 square miles and is home to 2,458,395 people as of July 1, 2021 (United States Census Bureau 2021). It is bordered by Orange County to the west, San Bernardino County to the north, San Diego County

to the south, and Arizona to the east. Riverside County was formed in 1893 from a small portion of San Bernardino County and a larger part of San Diego County and received its name from the already established City of Riverside (County of Riverside 2020).

The majority of Riverside County was made up of Rancho San Jacinto Viejo, which was given to Don José Antonio Estudillo; Sierra (Yorba) Rancho, and Rincon Grant, which were given to Bernardo Yorba through land grants that were given to prominent Spanish families by the Spanish Government. Following the establishment of the community of Riverside, it maintained the same agricultural business practices that brought commerce to the region; however, the success in fruit growing and export of good, the profitable land, proximity to a water source, the arrival of several investors and the acquisition of irrigation rights, leading to the formation of the Riverside Land and Irrigation Company, Riverside was rapidly becoming an attractive destination to settle in. The addition of the Southern Pacific Railroad in the region further facilitated the distribution of goods and travelers, bringing financial prosperity and more business to Riverside. Rapid growth meant that institutions needed to be formed to meet the needs of the growing population, and in 1891 the first attempt to form a new county was held (Brown and Boyd 1922; Guinn 1902).

Riverside continues to be one of the fastest growing counties in California. Its ecological diversity, with rivers, deserts, mountains and beaches, affordable housing, the Wine Country near Temecula and renowned University of California, Riverside are key factors in the continued appeal of the County.

2.3.3 - City of Riverside

The City of Riverside was founded in 1870 by John Wesley North, a developer, judge, and surveyor from John Wesley North, who had wanted to create a community that prioritized education and religious piety. However, by 1874, the community of Riverside was taken over by developers Samuel Cary Evans and William Sayward, who consolidated 15,000 acres of land into the Riverside Land and Irrigation Company. Investors quickly settled into the area and took advantage of the already established irrigation system to grow their crops, which very quickly became orchards of navel oranges. The export of oranges was so prominent during the latter half of 1874, that in 1895 the City of Riverside experienced the highest per capita income in the country, which attracted thousands of wealthy visitors to the City that took advantage of the growing downtown metropolitan area.

One of the main visitor attractions to the City of Riverside is the Mission Inn, which was converted from an adobe boarding house to 200-room hotel in 1903 and has hosted United States Presidents, royalty, celebrities, and Hollywood productions. The rapid growth of the City of Riverside and the booming citrus business continued until World War II, where large sections of the City were converted or reorganized in order to accommodate Camp Anza and Camp Haan, which became pivotal training camps during the war years. Following World War II, the City of Riverside continued to grow and develop into the heart of the Inland Empire. The University of California, Riverside, was established in 1954 as an addition to the University of California Citrus Experiment Station, which was founded in 1907. The establishment of the City's Historic Preservation Program to conserve several scenic landmarks and protect and preserve the rich architectural and cultural history of the City of Riverside, including the conservation of several scenic landmarks, was created by the City Council in 1969. As of 2019, the City of Riverside is the 64th largest city in the United States and the

13th largest in California with a population of 317,261 as of 2021. (Lech 2007; US Census 2021; City of Riverside 2022).

Community of Highgrove

The project site is located near the historic community of Highgrove. The neighborhood was founded in 1884 by the former governor of Iowa, Samuel Merrill, and bankers G.M. Hippee, Col. S.F. Cooper, Stephen H. Herrick and Delos Arnold. Together, the five men purchased 2,000 acres of land in East Riverside and decided to name the newfound community Riverside Heights. Soon after the community was formed, the railroad purchased the land from the investors and began the construction of two rail lines that connected Riverside Heights to the rest of Riverside. With the introduction of the new rail line in 1885, the name of the community quickly changed from Riverside Heights to Junction, before being renamed East Riverside the following year. By 1897, the community of East Riverside had grown considerably, and the introduction of an additional rail line and the Highgrove Hotel (later called the Casa Rosa Hotel) made it a destination hub for passengers and people looking to settle in an up-and-coming community with access to transportation. Around this time, the people of East Riverside were voicing their dissatisfaction with the name East Riverside, many expressing a desire for a community name that would be their own and not associated with the City of Riverside. On September 16, 1897, a naming contest was held, and the name Highgrove was chosen (The Press-Enterprise 2017).

Today, Highgrove is a Census Designated Place and an unincorporated community in Riverside County; however, the community is growing and transforming. In July 2021, the County of Riverside approved a plan to add 846 multiple family dwellings, walking trails, open space, and public and private parks on 65.20 acres. This is part of an ongoing effort to integrate Highgrove into a more upscale college and family-friendly neighborhood (Riverside County Planning Department 2023).

SECTION 3: RESULTS

3.1 - Records Search

3.1.1 - Eastern Information Center Records Search

On September 9, 2022, a records search for the project site and a 1-mile radius beyond the project boundaries was conducted at the EIC located at University of California, Riverside. The current inventories of the NRHP, the CRHR, the CHL list, the CPHI list, and the California BERD for Riverside County were also reviewed to determine the existence of previously documented local historical resources.

The results of the records search indicate that one historic resource (P-33-016650) has been recorded within the project boundaries and 97 resources have been recorded within the 1-mile search radius (Table 1). In addition, 65 area-specific survey reports are on file within the 1-mile radius, three of which (RI-03693, RI-07355, and RI-08771) partially addresses the project site (Table 2). This indicates that the project site has been partially surveyed for cultural resources. EIC records search results can be found in Appendix B.

Table 1: Cultural Resources within 1-mile Radius of the Project Area

Resource No.	Resource Description	Date Recorded	Proximity to Site
P-33-016650	**Burlington Santa Fe Railroad; AH07 Roads/trails/railroad grades; HP39 Other**	**2007**	**Within Project Site**
P-33-004768	C-Riverside East-A-2; AH06 Water conveyance system	1992, 1996	Within 1 mile
P-33-004787	Riverside-Warm Creek Canal; HP20 Canal/aqueduct	1992	Within 0.5 mile
P-33-005712	No Name	1999	Within 1 mile
P-33-006923	Talbert; HP02 Single-family property; HP08 Industrial building	1981, 2007	Within 1 mile
P-33-006924	B. Neale-Everington; HP02 Single-family property; AH06 Water conveyance system	1982	Within 1 mile
P-33-006925	Ernest Kidd House; HP02 Single-family property	1982	Within 1 mile
P-33-006927	Ser. No. 33-2507-5; HP02 Single-family property	1982	Within 1 mile
P-33-006928	Oberschmidt Home; HP02 Single-family property	1982	Within 1 mile
P-33-006930	Helen Webber-Marks House; HP02 Single-family property	1982	Within 1 mile
P-33-006931	United Methodist Church/M.E. Church; HP16 Religious building	1982	Within 1 mile
P-33-006932	Learmont; HP02 Single-family property	1982	Within 1 mile
P-33-006933	Ser. No. 33-2507-11; HP02 Single-family property	1982	Within 1 mile
P-33-006934	J. Strand–J. Dias; HP02 Single-family property	1982	Within 0.5 mile
P-33-006935	Ser. No. 33-2507-13; HP02 Single-family property	1982	Within 0.5 mile

Resource No.	Resource Description	Date Recorded	Proximity to Site
P-33-006936	Ser. No. 33-2507-14; National Register-7R; HP02 Single-family property	1982	Within 0.5 mile
P-33-006937	Crawford-Villalobos House; HP02 Single-family property	1982	Within 1 mile
P-33-006938	Ser. No. 33-2507-16; HP02 Single-family property	1982	Within 0.5 mile
P-33-006939	Albert Haight House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006940	L. Boffing House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006941	Ser. No. 33-2507-18; HP02 Single-family property; HP33 Farm/ranch	1982	Within 0.5 mile
P-33-006942	Raya House; HP02 Single-family property	1982	Within 1 mile
P-33-006943	Our Lady of Guadalupe Church; HP16 Religious building	1982	Within 1 mile
P-33-006944	Ser. No. 33-2507-22; HP02 Single-family property	1982	Within 1 mile
P-33-006945	P.W. Everington; HP02 Single-family property	1982	Within 0.5 mile
P-33-006947	Ser. No. 33-2507-25; National Register-3S; HP02 Single-family property	1982	Within 0.5 mile
P-33-006948	McCright House; HP02 Single-family property	1982	Within 1 mile
P-33-006949	McCright House;- Ser. No. 33-2507-27; HP02 Single-family property	1982	Within 1 mile
P-33-006950	Sam Everington-D. Stenson House; HP02 Single-family property	1982	Within 1 mile
P-33-006951	Ser. No. 33-2507-29; HP02 Single-family property	1982	Within 1 mile
P-33-006952	H. Dakin; HP02 Single-family property	1982	Within 1 mile
P-33-006953	Ser. No. 33-2507-31; HP02 Single-family property	1982	Within 1 mile
P-33-006954	Ser. No. 33-2507-32; HP02 Single-family property	1982	Within 1 mile
P-33-006955	W.W. Ayers; HP02 Single-family property	1982	Within 0.5 mile
P-33-006956	W.H. Ayers House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006957	Hagerty House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006958	Yoder; HP02 Single-family property	1982	Within 0.5 mile
P-33-006959	Johnson-Lunderman House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006960	Stevenson House; HP02 Single-family property	1982	Within 0.5 mile
P-33-006961	Ben Kidd–Laymon House; HP02 Single-family property	1982	Within 1 mile
P-33-006962	Mr. Kidd's Home; HP02 Single-family property	1982	Within 1 mile
P-33-006963	513 Transit Avenue; HP02 Single-family property	1982	Within 0.5 mile
P-33-006964	Ser. No. 33-2507-42; HP02 Single-family property	1982	Within 0.5 mile
P-33-006965	Ser. No. 33-2507-43; HP02 Single-family property	1982	Within 0.5 mile
P-33-006966	No Name; HP02 Single-family property	1982	Within 1 mile
P-33-006967	No Name; HP02 Single-family property	1982	Within 1 mile

Resource No.	Resource Description	Date Recorded	Proximity to Site
P-33-006968	No Name; HP02 Single-family property	1982	Within 0.5 mile
P-33-006969	No Name; HP02 Single-family property	1982	Within 0.5 mile
P-33-006970	No Name; HP02 Single-family property	1982	Within 0.5 mile
P-33-008650	CRM TECH 362-1	1998	Within 1 mile
P-33-008651	Other-CRM TECH 362-2	1998	Within 1 mile
P-33-008752	CRM TECH 388-1/H; AH04 Privies/dumps/trash scatters; AP02 Lithic scatter; AP03 Ceramic Scatter	1999	Within 1 mile
P-33-009006	Southwest V-Ditch Site No. 1; AH04 Privies/dumps/trash scatters	1999	Within 1 mile
P-33-009529	Highgrove Hydroelectric Plant; HP09 Public utility building	1968	Within 0.5 mile
P-33-009774	C-Riverside East-C-1/Southern Pacific Railroad; HP11 Engineering structure	1999	Within 1 mile
P-33-012154	1608 La Cadena Drive East, Riverside; National Register–6Y; HP02 Single-family property	1998	Within 1 mile
P-33-012155	2067 Marlborough Avenue, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012156	2068 Marlborough Avenue, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012157	2075 Marlborough Avenue, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012158	2076 Marlborough Avenue, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012159	2076 Blenheim Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012160	2050 Blenheim Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012161	2051 Blenheim Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012162	2037 Milton Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012163	2023 Milton Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012164	2009 Milton Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012167	1659 Mathews Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012168	1645 Mathews Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012169	1635 Mathews Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-012170	1179 La Cadena Drive West, Riverside; HP02 Single-family property	1998	Within 1 mile

Resource No.	Resource Description	Date Recorded	Proximity to Site
P-33-012171	1964 Spring Garden Street, Riverside; HP02 Single-family property	1998	Within 1 mile
P-33-013078	CRM TECH 1052-1H; HP02 Single-family property	2003	Within 1 mile
P-33-013218	CRM TECH 1018-1H; HP02 Single-family property	2003	Within 1 mile
P-33-013535	CRM TECH 1186-1H; HP02 Single-family property	2003	Within 1 mile
P-33-013536	CRM TECH 1187-1H; P-33-028761	2003	Within 1 mile
P-33-014884	No Name	2005	Within 1 mile
P-33-014885	No Name	2005	Within 1 mile
P-33-014886	No Name	2005	Within 1 mile
P-33-016644	AE-SBMP-1H; AH03 Landscaping/orchard; AH06 Water conveyance system	2007	Within 0.25 mile
P-33-017554	AE-PVL-1H/Atlantic and Pacific Railroad/BNSF/Atchison, Topeka and Santa Fe Railway; HP39 Other	2009	Within 0.5 mile
P-33-022126	Site 33-11446/CA-RIV-6828H (Riverside Highland Water Company pipeline); AH06 Water conveyance system	2013	Within 1 mile
P-33-024727	Fraternal Order of Eagles FOE Aerie Lodge No. 997 of Riverside; HP13 Community center/social hall	2015	Within 0.5 mile
P-33-028056	GP-1; AH06 Water conveyance system	2017	Within 1 mile
P-33-028761	395 Transit Avenue; HP02 Single-family property	2003	Within 1 mile
P-33-028762	395 Transit Avenue; HP02 Single-family property	2003	Within 1 mile
P-33-028763	409 Transit Avenue; HP02 Single-family property	2003	Within 1 mile
P-33-028781	445 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028782	472 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028783	489 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028784	505 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028785	521 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028786	535 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028787	543 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028789	539 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028790	563 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028791	591 Transit Avenue; HP02 Single-family property	2003	Within 0.5 mile
P-33-028805	569 Transit Avenue; HP02 Single-family property	2003	Within 0.25 mile

Source: Eastern Information Center (EIC) Records Search. September 9, 2022. Resource in **Bold** is within project boundary.

Table 2: Previous Investigations within 1-mile Radius of the Project Site

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
RI-03693	**Cultural Resource Investigation: Inland Feeder Project, Metropolitan Water District of Southern California**	**John M. Foster, James J. Schmidt, Carmen A. Weber, Gwendolyn R. Romani, and Roberta S. Greenwood**	**1991**	Within Project Site
RI-07355	**Cultural Resources Report for the San Bernardino Transmission Main Replacement Project, San Bernardino and Riverside Counties, California**	**Tracy H. Formica and Peggy Beedle**	**2007**	Within Project Site
RI-08771	**Preliminary Historical/Archaeological Resource Study Southern California Regional Rail Authority (SCRRA) Perris Valley Line Positive Train Control (PTC) Project In and near the Cities of Riverside, Perris, and Menifee Riverside County, California CRM TECH Contract No. 2444**	**Bai "Tom" Tang**	**2010**	Within Project Site
RI-01045	Cultural Resources Evaluation of the Four Corners Interconnect Facilities, San Bernardino and Riverside Counties, California	David Chavez	1978	Within 1 mile
RI-01046	Final Cultural Resources Evaluation for the Rialto Crude Oil Tank Farm to the Four Corners Pipeline, Kern County, California	David Chavez	1978	Within 1 mile
RI-01698	An Archaeological Assessment of Tentative Tract 12649 In Highgrove, California	Christopher Dover	1983	Within 1 mile
RI-03189	Cultural Resources Assessment of AT&T's Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside and San Diego Counties, California	Peak and Associates and Brian F. Mooney and Associates	1990	Within 0.25 mile
RI-03190	Part III, Addendum To: Cultural Resources Assessment of AT&T's Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside, and San Diego Counties, California	Peak and Associates	1990	Within 0.25 mile
RI-03383	Historic Property Clearance Report for the Proposed Acquisition Of Two Parcels in Southeast and Southwest Quadrants Of Route 60/91/215	Beth Padon	1991	Within 0.25 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
	Interchange. Supplement to October 11, 1991, Historic Property Clearance Report			
RI-03491	The Gage Canal: A Narrative History [Excerpt from Draft Haer Report, pp 108-180)	Kevin Hallaran	1991	No Map
RI-03508	A Cultural Resource Assessment Conducted for Sugarloaf Proposed Reservoir Site in The City of Riverside, California	William E. Hayden	1992	Within 1 mile
RI-03509	Revised: A Cultural Resource Assessment Conducted For Sugarloaf Proposed Reservoir Site in The City of Riverside, California	William E. Hayden	1992	Within 1 mile
RI-03605	Draft Report: An Archaeological Survey Report Documenting the Effects of The Rcic I-215 Improvement Project in Moreno Valley, Riverside County, to Orange Show Road in The City of San Bernardino, San Bernardino County, California	Robert J. Wlondarski	1993	Within 1 mile
RI-03633	Cultural Resource Phase I Inventory: An Archaeological Assessment Of a Portion of Spring Mountain Ranch in Highgrove, Riverside County, California	Adrianna L. Jackson	2000	Within 0.5 mile
RI-03851	A Phase I Cultural Resources Assessment of Tentative Parcel Map 28040	Jean A. Keller	1994	Within 0.5 mile
RI-04225	A Phase I Cultural Resources Assessment of Mp 002-989 (Western Door)	Jean A. Keller	1998	Within 0.5 mile
RI-04227	Cultural Resources Report: Tentative Tract Map No. 29097, City of Riverside, Riverside County, California	Bruce Love and Bai “Tom” Tang	1998	Within 0.5 mile
RI-04228	Cultural Resources Report: Tentative Tract 29219, City of Riverside, Riverside County, California	Bruce Love and Bai “Tom” Tang	1999	Within 1 mile
RI-04230	Historical/Archaeological Resources Survey Report: Tract Map 28453, 3330 Center Street, City of Riverside, Riverside County, California	Bruce Love and Bai “Tom” Tang	1999	Within 1 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
RI-04379	Identification And Evaluation of Historic Properties AT &T Wireless Site Pb 2002-032 Community of Highgrove Riverside County, California	Bruce Love, Mariam Dahdul, and Michael Hogan	2000	Within 1 mile
RI-04391	A Phase I Cultural Resources Assessment of Palmyrita 4 (Mp-002-923) 6.13-Acres of Land Located in The City of Riverside, Riverside County, California	Jean A. Keller	2000	Within 0.25 mile
RI-04393	A Phase I Cultural Resources Assessment of Marlborough Tech Center 5.60 Acres of Land Located in The City of Riverside, Riverside County, California	Jean A. Keller	2000	Within 0.5 mile
RI-04404	Final Cultural Resources Inventory Report for the Williams Communications, Inc., Fiber Optic Cable System Installation Project, Riverside to San Diego, California Vol I-IV	Jones and Stokes Associates, Inc.	2000	Within 1 mile
RI-04411	Historical/Archaeological Resources Survey Report: Robert Aust Industrial Office Park, City of Riverside, Riverside County, California	Bruce Love, Bai "Tom" Tang, Mariam Duhdul, and Adrian Sanchez Moreno	2000	Within 0.5 mile
RI-04430	Cultural Resources Inventory Report for the Williams Communications, Inc., Fiber Optic Cable System Installation Project, Riverside, CA to the CA/AZ Border, Riverside, San Bernardino, and Imperial Counties, CA Vol I-III	Jones and Stokes Associates, Inc.	2000	Within 1 mile
RI-04431	Cultural Resources Inventory Report for the Williams Communications, Inc., Proposed Fiber Optic Cable System Installation Project, Los Angeles to Riverside, Los Angeles and Riverside Counties, CA	Jones and Stokes Associates, Inc.	1999	Within 1 mile
RI-04652	Phase I Cultural Resources Assessment of DR-096-012, 19.6 Acres of Land in the City of Riverside, Riverside County, California	Jean A. Keller	2002	Within 1 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
RI-04653	A Phase I Cultural Resources Assessment of The Columbia/Ridge Project, 13.75 Acres of Land in The City of Riverside, Riverside County, California	Jean A. Keller	2002	Within 0.5 mile
RI-04813	California Citrus Heritage Recording Project: Photographs, Written Historical and Descriptive Data, Reduced Copies of Measured Drawings For: Arlington Height Citrus Landscape, Gage Irrigation Canal, National Orange Company Packing House, Victoria Bridge, And Union Pacific Railroad Bridge	National Park Service, Haer	1993	Within 0.5 mile
RI-05011	A Phase I Cultural Resources Investigation of The Proposed Columbia Business Center Near Highgrove, Riverside County, California	Mckenna et al.	2001	Within 1 mile
RI-05056	A Phase I Cultural Resources Investigation for The Proposed Corona Feeder Master Plan Project Area, Riverside County, California	Mckenna et al.	2003	Within 0.5 mile
RI-05233	Records Search Results for Sprint Pcs Facility Rv40xc704a (A Storage Place), Highgrove, Riverside County, California	Laura White	2000	Within 1 mile
RI-05238	Archaeological Resources Assessment of The Springbrook Estates Project: A 183.95 Acre Site Located in The Community of Highgrove, County of Riverside, California	Michael Dice	2004	Within 1 mile
RI-05389	A Phase I Cultural Resources Assessment of Dr-066-023, +/-7.77 Acres of Land in The City of Riverside, Riverside County, California	Jean Keller	2003	Within 0.5 mile
RI-05719	Letter Report: Proposed Cellular Tower Project in Riverside County, California, Site Name/Number: Ca-8547A/ Hunter Park	Heinz Lumpp	2003	Within 0.25 mile
RI-05744	Historical/Archaeological Resources Survey Report for Assessor's Parcel Numbers 249-110-050 And-051, Proposed Spruce Financial Center 2	Bai Tang and Michael Hogan	2003	Within 1 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
	Project, City of Riverside, Riverside County, California			
RI-05747	Historical Investigations at The Vivienda and Eureka Ranches, Spring Mountain Ranch Project, Highgrove Area of Unincorporated Riverside County	Laurie S. White, David Van Horn, and Robert S. White	2002	Within 1 mile
RI-05748	Archaeological Sensitivity Assessment: Hunter Park Redevelopment Plan Amendment, City of Riverside, Riverside County, California	Uyen K. Doan, Michael Hogan and Bai Tang	2003	Within 0.25 mile
RI-05993	Historical/Archaeological Resources Survey Report, Tentative Tract Map No. 30907, City of Riverside, Riverside County, California	Casey Tibbet and Josh Smallwood	2003	Within 1 mile
RI-05998	Historical/Archaeological Resources Survey Report, Assessor's Parcel Number 210-110- 030, City of Riverside, Riverside County, California	Michael Hogan Bai Tang, Casey Tibbet and Josh Smallwood	2003	Within 1 mile
RI-06001	Historical/Archaeological Resources Survey Report, Assessor's Parcel Number 210-080- 043, 1793 Chicago Avenue, City of Riverside, Riverside County, California	Michael Hogan Bai Tang, Casey Tibbet and Josh Smallwood	2003	Within 1 mile
RI-06088	First Supplemental Historic Property Survey Report for The Improvement of Interstate Route 215/State Route 91/ State Route 60, Riverside County, California	David Bricker	1998	Within 0.5 mile
RI-06148	Letter Report: Records Search and Site Visit Results for Sprint Telecommunications Facility Candidate Rv60xc824a (Mancilla Property) 1361 Dodson Way, Riverside, Riverside County, California	Marnie Aislin-Kay and Christeen Taniguchi	2004	Within 1 mile
RI-06476	Historical/Archaeological Resources Survey Report, Tentative Tract Map 33506, 3184, 3224, And 3262 Chase Road, City of Riverside, Riverside County, California	Michael Hogan Bai Tang, Casey Tibbet and Daniel Ballester	2005	Within 0.5 mile
RI-06840	Cultural Resources Assessment, Calvary the Brook Project (APN 255-	Riordan Goodwin	2007	Within 1 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
	031-018), Community of Highgrove, Riverside County, California			
RI-06961	Historic Property Survey Report	Barbara Tejada	2006	Within 0.5 mile
RI-07173	Cultural Resource Assessment, Cingular Wireless, Facility No. SB 305-01, Unincorporated Riverside County, California	Caprice D. Harper	2004	Within 1 mile
RI-07235	Cultural Resource Assessment for Cingular Wireless Facility No. LA S08-01 in Riverside County, California	Caprice D. Harper	2003	Within 1 mile
RI-07322	Cultural Resource Records Search and Site Visit Results for T-Mobile Telecommunications Facility Candidate IE24032C (Essex Commercial Center), 1855 Iowa Avenue, Riverside, Riverside County, California	Wayne Bonner and Marnie Aislin-Kay	2006	Within 1 mile
RI-07352	Cultural Resources Assessment: Columbia Avenue/Iowa Avenue Roadway Improvements City of Riverside, Riverside County, California	Casey Tibbet, Gini Austerman, and Bill Bell	2007	Within 0.25 mile
RI-07503	Addendum Report: A Phase I Cultural Resources Investigation of the Proposed Columbia Business Center Near Highgrove, Riverside County, California	Jeanette A. McKenna	2007	Within 1 mile
RI-08093	Phase I Cultural Resources Assessment Highgrove Business Center Project Highgrove, Riverside County, California	Jennifer M. Sanka	2008	Within 0.5 mile
RI-08270	A Cultural Resources Inventory: An Archaeological Assessment of Sabert Corporation- A Commercial Parcel in Highgrove Riverside County, California	Christopher E. Dover	2000	Within 0.25 mile
RI-08526	Letter Report: Vista-La Colina 66 kV Deteriorated Pole Replacement Project, Highgrove area (WO 800316955/4505-3305), Riverside County, California	James J. Schmidt	2010	Within 0.25 mile
RI-08937	Historical/Archaeological Resources Survey, Columbia Business Center	Bai "Tom" Tang and Michael Hogan	2013	Within 0.5 mile

Report No.	Report Title/Project Focus	Author	Date	Proximity to Site
	Project, City of Riverside, Riverside County, California			
RI-08943	A Phase I Archeological Records Search and Survey Report on APN 255-070-013-1, 7.43- Acre Parcel in Highgrove, California in Riverside County	Barbara Loren-Webb	2011	Within 1 mile
RI-09414	Phase I Cultural Resources Survey for the Bixby Highgrove Project TTM 36668 County of Riverside	Brian F. Smith and Kyle J. Coulter	2013	Within 0.5 mile
RI-09511	Historical/Archaeological Resources Survey Report: Colombia Business Center Project, City of Riverside, Riverside County, California	Bai "Tom" Tang, Michael Hogan, Deirdre Encarnacion, Daniel Ballester, and Terri Jacquemain	2013	Within 1 mile
RI-09786	Phase I Cultural Study for the 750 Marlborough Drive Project	Hannah Haas and Benjamin Vargas	2017	Within 1 mile
RI-09795	Phase I Cultural Resources Study for the 797 Palmyrita Trailer Parking Lot Project, Riverside, Riverside County, California	Hannah Haas, Breana Campbell, and Christopher Duran	2016	Within 0.5 mile
RI-09832	Cultural Resource Records Search Results for T-Mobile West, LLC Candidate '824716 Essex,' 1855 Iowa Avenue, Riverside, Riverside County, California	Carrie D Wills and Sarah A Williams	2015	Within 1 mile
RI-10030	Cultural Resources Records Search and Literature Review for A Pacific Bell Mobile Services Telecommunications Facility: Cm 046-08 City of Riverside, California	Roger D Mason and Wayne H Bonner	1998	Within 1 mile
RI-10124	Center Park Residential Project City of Riverside County, California	Riordan Goodwin	2017	Within 1 mile
RI-10673	La Condena-La Cadena/ Ensite # 25677 (288215)	Gabriel Ocampo	2015	Within 1 mile
RI-10714	Cultural Resources Assessment Center Park Residential Project, City of Riverside, Riverside County, California	Riordan Goodwin	2018	Within 1 mile
Source: Eastern Information Center (EIC) Records Search. September 9, 2022. Studies in **Bold** partially transect the project boundary.				

Resource 33-16650: Burlington Northern Santa Fe Railroad, is a historic railroad that transects the project site. The rail line was built in 1882 and was part of the first railroad station in Riverside,

named “Riverside Station at Point of Rocks.” This rail line was and is pivotal as it connects the towns or Riverside, Temecula, and Fallbrook and continues to San Diego County.

Study RI-03693: Cultural Resource Investigation: Inland Feeder Project, Metropolitan Water District of Southern California, linearly transects the project site.

Study RI-07355: Cultural Resources Report for the San Bernardino Transmission Main Replacement Project, San Bernardino and Riverside Counties, California, partially transects the project site.

Study RI-08771: Preliminary Historical/Archaeological Resource Study Southern California Regional Rail Authority (SCRRA) Perris Valley Line Positive Train Control (PTC) Project In and near the Cities of Riverside, Perris, and Menifee Riverside County, California CRM TECH Contract No. 2444, linearly transects the project site.

3.1.2 - Historical Aerials

A review of 20 historical aerial photographs from 1938 to 2020 indicate that, from the earliest aerial in 1938, the project site was used as an agricultural field. Between 1948-1959 industrial development occurred immediately north of the project site, in addition to industrial development to the southwest. Between 1968 and 1978, an industrial building was constructed within the project boundaries. From 1959 to 1995, a slow rate of industrial/commercial development began to occur in the areas surrounding the project site. From 2002 until the present, the project site has remained mostly unchanged with industry being the primary use of the buildings within the project site and in the surrounding area (Historic Aerials 2021).

3.1.3 - Native American Heritage Commission Record Search

On August 9, 2022, FCS sent a request to the NAHC in an effort to determine whether any sacred sites are listed on its SLF for the project site. A response was received on September 15, 2022, indicating that the SLF search produced a positive result for Native American cultural resources within the project site. The NAHC included a list of 34 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on September 15, 2022. Response from the Gabrieleño Tongva Indians of California were received on September 16, 2022, indicating that the tribe had no comment. On September 19, 2022, the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) replied indicating that the proposed project is not located near any known Serrano resources. A reply from the Augustine Band of Cahuilla Indians was received on September 22, 2022, indicating that they are unaware of any cultural resources that may be affected by the proposed project, but would like to be contacted in the event that cultural resources are uncovered during the development of the proposed project. On October 6, 2022, a response was received from the Agua Caliente Band of Cahuilla Indians requesting a copy of the cultural resource inventory and EIC results. On October 17, 2022, a response was received from the Rincon Band of Luiseño Indians indicating that the tribe has no TCRs within the project area but is available for consultation if needed. No additional responses have been received to date. NAHC correspondence can be found in Appendix C.

3.2 - Pedestrian Survey, Architectural and Historic Assessment and Buried Site Potential

3.2.1 - Pedestrian Survey

On September 9, 2022, FCS Staff Archaeologist Kweku A. Williams MA, RPA, conducted a pedestrian survey for unrecorded cultural resources at the project site. The survey began on the southeast corner of the project site and moved west, using north–south transects spaced at 15-meter intervals wherever possible. The majority of the site was hardscaped and contained a large undeveloped area that was not accessible due to barbed wire fencing and concrete walls. Additionally, the survey revealed a structure more than 45 years in age which has not been evaluated.

Survey conditions were documented using digital photographs and field notes. During the survey, an FCS Staff Archaeologist examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, toolmaking debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). All areas of the project site were closely inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. The soil was a silty sand with a gray, brown hue. No historic or prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert) were observed. The surface was littered with modern debris and garbage. Photographs from the pedestrian survey can be found in Appendix D.

3.2.2 - Architectural and Historic Resources Assessment

In California, the term “historical resource” includes but is not limited to “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (California Public Resources Code [PRC] § 5020.1(j)) The criteria for listing resources on the CRHR (enumerated below) were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California Public Resources Code Section 5024.1(c) (1–4), a resource is considered historically significant if it (1) retains “substantial integrity” and (2) meets at least one of the following criteria:

- **Criterion 1: Event.** It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- **Criterion 2: Person.** It is associated with the lives of persons important to local, California, or national history.
- **Criterion 3: Architecture.** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.

- **Criterion 4: Information Potential.** It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The identified property was recorded and evaluated for historical significance on the appropriate set of DPR forms in consideration of CRHR and City designation criteria and integrity requirements (Appendix E). The property was found not eligible under all State and local designation criteria due to a lack of significant historical associations, architectural merit, and integrity.

Building Description

One industrial structure constructed in 1975 that had not been previously evaluated for historical significance was identified within the project site at 1151 Palmyrita Avenue. The structure is a single story rectangular industrial building. The building is located laterally to Palmyrita Avenue, in an east/west direction. The roof is a low pitch side gable, with vertical metal siding that covers the entire building. There is one glass access door and window on the three windows on the left-front face of the building, with two floor-to-ceiling garage doors and four smaller loading docks. Because of a property fence that surrounded the structure, no detailed pictures were able to be taken.

National Register of Historic Places, California Register of Historical Resources, and Local Listing Eligibility Evaluation

A records search with the County of Riverside Accessors Office, the Office of the Treasurer-Tax Collector for the County of Riverside, the California Newspaper Repository, and Historic Aerials failed in identifying detailed information of the structure.

Tax records with the County of Riverside go back to 2005 and correspondence with the County of Riverside Accessors Office verified that tax and ownership information regarding the subject property is all available on the county website. Historic Aerials shows that the subject property was constructed between 1968-1978 during a growth period of the area; nevertheless, no noteworthy events occurred during the construction period. Therefore, it does not meet Criterion A: Event.

A search of newspaper archives and county tax records did not identify any association to a person of local or national interest; therefore the subject property does not meet Criterion B: Person.

Under Criterion C: Architecture, the subject property displays common features of industrial structures built post-World War II, displaying common architectural features of the time; therefore, it is not eligible for listing under Criterion C.

Under Criterion D: Information Potential, there is no evidence that the subject property exhibits any unusual construction features or have the ability to contribute significant information to the overall history of the City or County of Riverside; therefore, it is not eligible for listing under Criterion D.

No historical resources were identified within the project site as a result of this study. Therefore, with respect to built environment resource, the proposed project would have a less than significant impact on historical resources under CEQA. The DPR form can be found in Appendix E.

3.2.3 - Buried Site Potential

In addition to the pedestrian survey, the potential for not yet identified cultural resources in the project vicinity was reviewed against geologic and topographic geographic information system data for the general area and information from other nearby projects. The proposed project was evaluated against a set of criteria originally identified by a geoarchaeological overview of the Central Valley that was prepared for the California Department of Transportation (Caltrans) Districts 6 and 9 (Meyer et al. 2010). This study mapped the "archaeological sensitivity," or potential to support the presence of buried prehistoric archaeological deposits, throughout Southern California based on geology and environmental parameters, including distance to water and landform slope. The methodology used in the study is applicable to other parts of California and generally concluded that sites consisting of flat, Holocene-era deposits in close proximity to water resources had a moderate to high probability of containing subsurface archaeological deposits when compared to earlier Pleistocene deposits situated on slopes or further away from drainages, lakes, and rivers.

The project site is situated on flat terrain, and according to the geological map of Morton and Miller (2006), the surface of the project site rests mostly on young alluvial fan deposits (late Pleistocene to Holocene; Qyf) and old alluvial fan deposits (late to middle Pleistocene; Qof) extend slightly into the northwest corner of the project site. Applying the criteria set forth in Meyer et al. (2010 and 2011), all Holocene-era deposits have the potential to contain archaeological deposits, which increases with the ease of the slope and proximity to water resources.

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SECTION 4: SUMMARY AND RECOMMENDATIONS

4.1 - Summary

In accordance with CEQA Guidelines, FCS assessed the potential for the proposed project to have an adverse impact on known and potential cultural resources at the project site. Results from the EIC indicates that one historic resource (P-33-016650) has been recorded within the project boundaries and 97 resources have been recorded within the 1-mile search radius. Additionally, 65 area-specific survey reports are on file within the 1-mile radius, three of which (RI-03693, RI-07355, and RI-08771) partially addresses the project site, indicating that the project site has been previously surveyed for cultural resources.

The results of the pedestrian survey confirmed the presence of a single industrial structure more than 45 years of age, requiring an Architectural and Historical Assessment. The results from the architectural assessment concluded that the industrial structure is ineligible for the CRHR due to a lack of significant historical associations and architectural merit and integrity.

The NAHC SLF search reported positive results for Native American cultural resources in the immediate project area. FCS contacted Native American representatives and, to date, responses from the Gabrieleño Tongva Indians of California, the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians), the Augustine Band of Cahuilla Indians, the Agua Caliente Band of Cahuilla Indians, and the Rincon Band of Luiseño Indians was received. No additional tribal representatives have provided information or comments pertaining to the project site.

4.2 - Recommendations

4.2.1 - Cultural Resources Recommendations

Based on the results of the records searches, archival research, the positive results from the NAHC SLF search for TCRs, tribal correspondence, the pedestrian survey, and Architectural and Historical Assessment, FCS considers the potential for the proposed project to have an adverse effect on historic or prehistoric cultural resources to be moderate. No cultural resources were identified during the record search; however, a single industrial structure more than 45 years in age that had not previously been evaluated was identified during the pedestrian survey. The subsequent architectural assessment determined that the industrial structure identified during the pedestrian survey was ineligible for inclusion in the CRHR.

FCS therefore recommends that all construction personnel directly involved with project-related ground disturbance attend a “tailgate” Worker Environmental Awareness Program (WEAP) training for archaeological resources. The training should include visual aids, a discussion of applicable laws and statutes relating to archaeological resources, types of resources that may found within the project site, and procedures to be followed in the event such resources are encountered. The training should be conducted by an Archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology. In addition, FCS recommends that an

Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, be present during the initial grading of the site to check for the inadvertent exposure of cultural materials. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time. Additionally, Cultural Resources Regulations and Evaluation Criteria can be found in Appendix F.

4.3 - Inadvertent Discovery Procedures

4.3.1 - Inadvertent Discovery of Human Remains

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resources Code Section 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project area in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendant, or the most likely descendant failed to make a recommendation within 48 hours after being notified by the Commission;
   - The descendant identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

4.3.2 - Inadvertent Discovery of Cultural Resources

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. In the event that buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified Archaeologist shall be consulted to determine whether the resource requires further study. The qualified Archaeologist shall make recommendations to the lead agency on the measures that shall

be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the Master Plan area should be recorded on appropriate DPR forms and evaluated for significance in terms of CEQA Guidelines.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the lead agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the lead agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the lead agency where they would be afforded long-term preservation to allow future scientific study.

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Appendix A:
Personnel Qualifications

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FIRSTCARBON SOLUTIONS™

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 12 years of experience

Education

- Master of Arts, Archaeology and Physical Anthropology, Northern Illinois University, DeKalb, IL, 2014
- Bachelor of Arts, Anthropology and World History, Cum Laude, State University of New York, Albany, NY, 2010

License

- Registered Professional Archaeologist, License No. 17953, 2019

Affiliations

- Phi Beta Delta Honor Society for International Scholars, 2012 to present
- Lambda Alpha National Anthropology Honor Society, 2009 to present

Awards and Fellowships

- Superior Exhibit Award for *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibit, Anthropology Museum, Northern Illinois University, Illinois Association of Museums, IL, 2013
- Rhoten A. Smith Fellowship, Northern Illinois University, DeKalb, IL, 2012–2014
- Anthropology Foundation Fund Award, Northern Illinois University, DeKalb, IL, 2012

Kweku Williams, MA, RPA, is a Registered Professional Archaeologist (License No. 17953) with more than 12 years of experience specializing in archaeology and physical anthropology. He possesses knowledge on excavation practices, artifact analysis, and osteology. Mr. Williams has worked on the field in sites around the US and parts of Europe, as well as in the academe where he served as Adjunct Professor in Anthropology at Berkeley City College, Berkeley, California, and Las Positas College, Livermore, California.

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

Tulocay Cemetery Project for Holman Teague Roche Anglin, LLP Archaeological Monitoring, City of Napa, CA

FCS provided archaeological monitoring for excavations during boundary determination testing at Tulocay Cemetery. Mr. Williams served as Archaeological Monitor.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ritz-Carlton Napa Valley Resort Hotel Project Data Recovery of CA-NAP-928, City of Napa, CA

FCS is currently assisting the US Army Corps of Engineers (USACE) with the data recovery of CA-NAP-928. FCS is implementing the Memorandum of Agreement (MOA) and Historic Properties Treatment Plan (HPTP) for the Ritz-Carlton Napa Valley Resort Project, which was determined to have an adverse effect on the prehistoric site CA-NAP-928. The project proponent is a private developer whose application for the hotel site (which included a wetland) prompted Section 106 review by the USACE, San Francisco District. The project would result in the complete displacement of CA-NAP-928, which was determined eligible for listing in the National Register of Historic Places under criterion D for its data potential. To address this adverse effect, the USACE and the California State Historic Preservation Officer executed an MOA calling for the implementation of the HPTP. Treatment includes data recovery of the large, complex, multi-period site, involving the analysis of macrobotanical remains, lithics, fire-affected rock, obsidian hydration analysis, C-14 dating, and the treatment and recovery of faunal and human osteological remains. FCS is also working closely with Scott Gabaldon, the Chairperson of the Mishewal Wappo Tribe of Alexander Valley, who has assigned one Native American monitor to be present at the site during all ground-disturbing activities. Mr. Williams is providing archaeological testing and monitoring services for the project.

Previous Field Experience

Applied EarthWorks, Inc. and Cogstone Resource Management, Inc., Crowder Canyon, San Bernardino County, CA

Mr. Williams worked with Applied EarthWorks, Inc. and Cogstone Resource Management as a Field Technician on the Project State Route Realignment—Crowder Canyon Data Recovery Project for California Department of Transportation (Caltrans).

Schoharie Valley Field School, State University of New York, Albany, NY

Mr. Williams received training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Christina Rieth.

Cultural Resources Survey Program, New York State Museum, New York, NY

Under the supervision of Dr. Christina Rieth, Mr. Williams served as Archaeological Field Technician and conducted archaeological surveys and excavation for the New York State Museum.

Far Western Anthropological Research Group, Multiple Locations

As Field Technician, Mr. Williams' work included excavation and osteological recovery in compliance with the Native American Graves Protection and Repatriation Act with the Enterprise people; excavation testing for infrastructure development in Camp Pendleton for the Department of Defense; excavation and teaching demonstration in archaeological practices at Camp Tawonga, California; excavation and boundary site testing for a known archaeological site in Aliso Creek for the USACE; test excavation at Mariposa Leach Field for the US Forest Service (USFS); artifact processing for the Feather River West Levy project of the USACE and the Enterprise Tribal Group; the Moke 3700-Acre Survey in Pioneer, California for the USFS; the Onyx Ranch Survey in Mojave, California, for the Bureau of Land Management; Goleta Data Recovery for the Caltrans; archaeological field surveys, monitoring, and

excavation/burial recovery for the Feather River West Levee Project in Live Oak, California; and archaeological field surveys and excavation in Mariposa Grove at the Yosemite National Park.

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams worked with Dr. Helen Haines as Crew Chief and Field Manager at the Ka'Kabish Field School in the province of Orange Walk, Belize.

Archaeological Field School in Salemi, Sicily, Italy

Through Northern Illinois University's Archaeological Field School, Mr. Williams collected data for his Master's thesis and received further training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Michael Kolb.

Hydro-archaeology Project, Universidad de Granada, Andalusia, Spain

Mr. Williams assisted Dr. José Maria Cervantes in mapping waterways in Andalusia, Spain.

Academic Positions

Berkeley City College, Berkeley, CA

Mr. Williams served as Adjunct Professor in Anthropology, teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, and Introduction to Archaeology.

Las Positas College, Livermore, CA

Mr. Williams served as Adjunct Professor in Anthropology teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, Introduction to Forensic Anthropology, and Introduction to Archaeology.

Archaeology Camp, College of Liberal Arts and Science, Northern Illinois University, DeKalb, IL

Mr. Williams served as Co-coordinator and Counselor for the Archaeology Camp of the College of Liberal Arts and Science in Northern Illinois University, DeKalb.

Anthropology Museum, Northern Illinois University, DeKalb, IL

Mr. Williams served as Graduate Assistant in Northern Illinois University, DeKalb's Anthropology Museum, where he coordinated the exhibit development team, provided tours and lectures on the content of exhibits, and fostered appreciation for education and cultural diversity. He also assisted in the development and installation of the *Fast Food Nation: 10,000 B.C.* and *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibits.

Department of Anthropology, Northern Illinois University, DeKalb, IL

As Teaching Assistant, Mr. Williams taught Introduction to Physical Anthropology, where he discussed The Life History and Social Behavior of the Mountain Gorilla, and Exploratory Archaeology, where he discussed The Rise of the City States of Mesopotamia, The Bronze Age in the Western Mediterranean, and Classic Period of the Maya Lowlands.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams served as Field School Instructor where he provided students with the essentials for archaeological studies, such as laying out units, mapping (plan view and profile), calculating elevations and stadia metric distances, the essentials of logistical management of unit forms, proper notetaking in field journals, and the collection and labeling of artifact bags.

Academic Events and Speaking Engagements

- Learning Community Revolutionary Scholars First Year Experience, Berkeley City College, Berkeley, CA, Fall 2017
- Panelist on the Islamophobia Open Talk, Muslim Student Association and Peace and Social Justice Student Association, Las Positas College, Livermore, CA, Fall 2016
- Panelist on the African-American Science, Technology, Engineering, and Math Panel, Black Student Union, Las Positas College, Livermore, CA, Spring 2016
- Midwestern Mesoamerican Archaeological Conference, Northern Illinois University, DeKalb, IL, Spring 2014

Community Service

Mr. Williams participated in Northern Illinois University Cares Day where he participated in the beautification of DeKalb historical landmarks and public parks.

Publications

Williams, K.A. (2014). *Space and Specialization: Understanding the Medieval Economic Behavior through Ceramics in Salemi, Sicily* (master's thesis). Northern Illinois University, Illinois, United States.

FIRSTCARBON SOLUTIONS™

NATALIE ADAME—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 2 years of experience

Education

- Bachelor of Arts, Biological Anthropology, Minor in Geology, California State University, East Bay, Hayward, CA, 2016
- Associate of Arts, Geology, Mt. San Antonio College, Walnut, CA, 2011

Skill

- Esri Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS)

Natalie Adame has more than 2 years of experience in archaeology, which she gained from extensive fieldwork and museum experience. Ms. Adame has established excellent research skills exemplified by her ability to prepare comprehensive reports and presentations. Her experience includes performing land use analyses and preparing Initial Studies and EIRs for various development projects. As an Archaeological Monitor/Field Technician, Ms. Adame implements Worker Environmental Awareness Programs (WEAP) 'tailgate' training sessions and coordinates with construction staff and Native American Monitors, construction monitoring, and the salvage and recordation of archaeological resources.

RELATED EXPERIENCE AND CLIENT SUMMARY

Biological, Archaeological, and Paleontological Monitoring and Reporting Services, Los Angeles Regional Interoperable Communications System, Los Angeles County, CA

FCS is providing monitoring and reporting services during the construction of more than 150 land mobile radio (LMR) facilities at sites located primarily in Los Angeles County. The LMR sites contain the infrastructure and equipment necessary to provide voice communications coverage throughout the County for emergency responders. These locations are widely dispersed across the County in both urban (intensively developed) and rural (less developed) settings and include coastal locations, sites in downtown Los Angeles, remote mountain peaks across the County, and the northern high desert. FCS is conducting the biological, archaeological, and paleontological pre-construction and construction monitoring and reporting services in accordance with the Construction Management Requirements outlined in the NEPA Environmental Assessment that FCS prepared for the project. Ms. Adame is a Field Archaeological Monitor on the project.

Barton Road Logistics Facility Project EIR, Technical Studies, and Peer Review, City of Colton, CA

FCS is providing CEQA documentation and peer review services for the Barton Road Logistics Facility Project in the City of Colton, in San Bernardino County. The proposed project includes the demolition of four industrial buildings, an office building, and parking lot. The proposed project would construct two state-of-the-art speculative concrete tilt-up industrial warehouse logistics facilities with a total square footage of 960,040 square feet. The project will develop Best-in-Class industrial facilities in the City of Colton that are designed to meet contemporary industry standards, can easily accommodate a wide

variety of warehouse and distribution uses, and are economically competitive with similar warehouse facilities in the local Inland Empire marketplace. FCS is preparing an EIR with supporting stand-alone Air Quality and Greenhouse Gas (GHG) Emissions Analysis with Health Risk Assessment, Biological Resources Assessment, Phase I Cultural Resources Assessment (CRA), Noise Impact Analysis, and Traffic Impact Analysis. Our team will also peer review the Geotechnical Report. The Phase I Cultural Resources Assessment will provide an evaluation and recommendations regarding potential construction related impacts to cultural resources. Ms. Adame is a Field Archaeological Monitor on the project.

Library/Learning Resource Center Building Project Biological and Cultural Construction Monitoring Services for the Solano Community College District, Fairfield, CA

FCS prepared the IS/MND and provided the subsequent biological and cultural construction monitoring services for the construction of a new 59,252-gross-square-foot, 2-story Library/Learning Resources Center building on the Fairfield Campus of the Solano Community College Campus. The building would be constructed on an open quad in the center of campus, replacing an open lawn. FCS conducted AB 52 consultation in coordination with the District and tribal representatives from the Yocha Dehe Wintun Nation to address concerns about tribal cultural resources in the immediate vicinity of the site. In additional to preparing a full PI-CRA, FCS drafted mitigation measures in coordination with the Tribe and District to effectively allow the project to proceed while protecting the Tribal Cultural resources in question. The District approved the project in May 2016, with the approval of the tribe and all parties involved. FCS will provide coordination with Tribal representatives from the Yocha Dehe Wintun Nation, as well as a "tailgate" sensitivity training session for construction personnel. Ms. Adame is a Field Archaeological Monitor on the project.

Prior Work Experience

Archaeologist, Material Culture Consulting, City of Pomona, CA

As an archaeologist, Ms. Adame performed excavations, recorded prehistoric and historic artifacts, and catalogued data using ArcGIS. She conducted Phase I, II, and III Environmental Site Assessments (ESAs) and drafted EIRs. Ms. Adame also prepared Department of Parks and Recreation (DPR) forms, searched records, and monitored projects in the State and county.

Field Archaeologist, ICF International, City of Los Angeles, CA

As a field archaeologist, Ms. Adame conducted environment surveys, performed excavations, and catalogued prehistoric and historic artifacts using ArcGIS. She prepared Federal Environment Management environmental reviews, DPR forms, and ESAs. Ms. Adame also worked with different transportation agencies, including the Orange County Transportation Authority, OC 405 Partners, LA Metro, and the California Department of Transportation.

Field Archaeologist, Dudek , City of Pasadena, CA

As a field archaeologist, Ms. Adame performed architectural and cultural historical assessments and conducted surveys for various projects to evaluate conflicts during construction period. Her responsibilities also include evaluating historic resource significance, cataloguing exhibit pieces, and gathering daily records of environmental compliances.

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NATALIE ADAME—ARCHAEOLOGICAL MONITOR

Grants and Proposal Writer – Applied Anthropology Coursework, California State University, East Bay, City of Hayward, CA

As a Grants and Proposal Writer, Ms. Adame analyzed organizational cultures, conducted needs assessment, and prepared social impact reports. Part of her task was to identify the appropriate research disciplines necessary for specific jobs.

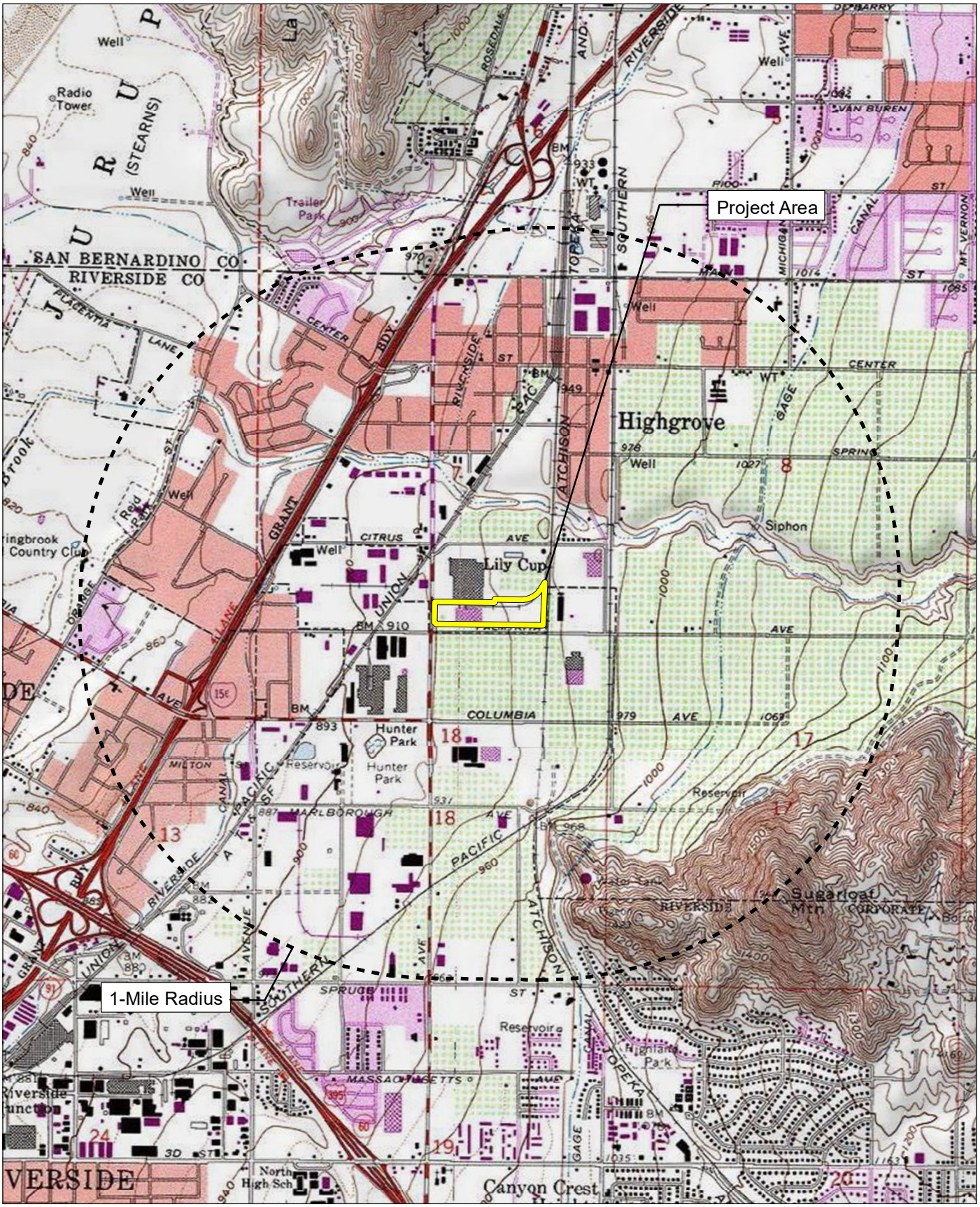
Student Museum Docent, California State University, East Bay, City of Hayward, CA

Ms. Adame served as a docent at the university's C.E. Smith Museum of Anthropology. Her responsibilities include preparing materials for exhibits, researching and writing about artifacts, and mounting display materials in the museum.

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Appendix B:
Eastern Information Center Records Search Results

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Source: USGS San Bernardino South, Riverside East 7.5' Quadrangle / T02S,R04W,sec5,6,7,8,17,18;T02S,R05W,sec12,13; Jurupa (Stearns).

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Exhibit A
Record Search Map

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-015743	CA-RIV-008196	National Register - 6Z; Other - BNSF Railroad; Other - San Jacinto Valley Railway; Other - Santa Fe Valley Railroad; Other - CRM TECH 2225-1H; Other - Burlington Northern Santa Fe Railroad; Other - 3CS; Other - SJ-32; Other - CRM TECH 2917-1; Other - CRM TECH 3084; Other - SRI-3145	Site	Historic	AH07	2005 (P.Easter. And P. Beedle, Applied EarthWorks, Inc.); 2006 (Peggy Beedle, Applied EarthWorks, Inc.); 2007 (Theordore Cooley, Jones & Stokes); 2007 (Craft, Andrea, Jones and Stokes); 2008 (Daniel Ballester, CRM TECH); 2009 (M.C. Hamilton, J. George, Applied EarthWorks, Inc.); 2010 (S. Justus and A. Giacinto, ASM Affiliates); 2011 (Joshua Trampier, Statistical Research, Inc.); 2012 (Stacie Wilson and Jill Gibson, AECOM); 2012 (C. Cotterman, E. Denniston, ECORP Consulting); 2015 (Daniel Ballester, CRM TECH); 2016 (Michael Hogan, CRM TECH)	RI-07528, RI-07833, RI-08955, RI-08980, RI-09002, RI-09021, RI-09364, RI-10069, RI-10160
P-33-016650		Other - Burlington Santa Fe Railroad; Other - LSA-DMJ0604-H-1	Site	Historic	AH07; HP39	2007 (Austerman, Gini, LSA Associates, Inc.)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-004495	CA-RIV-004495	Other - RCTC Parcel 5; Other - Riverside Upper Canal; Other - CRM TECH 2331; Other - Riverside Lower Canal; National Register - 2S2 from ADOE and 6Y from BERD	Structure	Historic	AH06; HP20	0801 (Angie Gustafson, Mike McGrath, EDAW Inc., San Diego, CA.); 1991 (Patricia Jertberg, LSA Associates); 1992 (Robert Wlodarski & Dan Larson, Historical, Environmental, Archaeological, Reaserch, Team (HEART), Calabasas, CA.); 1996 (Rick Starzak, Molly Fitzgerald, Myra L. Frank & Associates, Inc. Los Angeles, CA.); 2003 (Carrie Chasteen, Myra L. Frank & Associates); 2009 (Daniel Ballester, CRM TECH); 2016 (Gini Austerman, LSA)	RI-03383, RI-03605, RI-04393, RI-04628, RI-05748, RI-05754, RI-06088, RI-08247, RI-08548, RI-10159, RI-10652, RI-10675
P-33-004768	CA-RIV-004768	Other - C-Riverside East-A-2; Other - P1074-81H/MFA-1H	Site	Historic	AH06	1992 (Robert J. Wlodarski, Historical, Environmental, Archaeological, Research, Team); 1999 (S. Ashkar, Jones & Stokes)	RI-03491, RI-03508, RI-03509, RI-03605, RI-03617, RI-04391, RI-04393, RI-04404, RI-04480, RI-04813, RI-05056, RI-05873, RI-08409, RI-08840, RI-10285
P-33-004787	CA-RIV-004787	Other - Riverside-Warm Creek Canal; Other - P1074-1174H/MFA-2H	Site	Historic	HP20	1992 (Robert J. Wlodarski, Historical Enviromental Research Team)	RI-03605, RI-04391, RI-04393, RI-07355
P-33-005712				Historic		1999 (B. Tang, CRM TECH)	RI-04228
P-33-006923		Other - Talbert; Other - Ser. No. 33-2507-1	Building	Historic	HP02; HP08	1981 (Jim Warner, Riverside County Historical Commission); 2007 (J. Sanka, Michael Brandman Associates)	RI-08093
P-33-006924		Other - B. Neale-Everington; Other - Ser. No. 33-2507-2	Building	Historic	HP02; HP06	1982 (L. Warner, Riverside County Historical Comm.)	
P-33-006925		Other - Ernest Kidd House; Other - Ser. No. 33-2507-3	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006927		Other - Ser. No. 33-2507-5	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006928		Other - Oberschmidt Home; Other - Ser. No. 33-2507-6	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-006930		Other - Helen Webber-Marks House; Other - Ser. No. 33-2507-8	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006931		Other - United Methodist Church; Other - M.E. Church; Other - Sr. No. 33-2507-9-9999 9.1 + 2	Building	Historic	HP16	1982 (Thelma Newman, Riverside County Historical Comm.)	
P-33-006932		Other - Learmont; Other - Ser. No. 33-2507-10	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006933		Other - Ser. No. 33-2507-11	Building	Historic	HP02	1982 (L. Warner, Riverside County Historical Comm.)	
P-33-006934		Other - J. Strand - J. Dias	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006935		Other - Ser. No. 33-2507-13	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.)	
P-33-006936		Other - Ser. No. 33-2507-14; National Register - 7R	Building	Historic	HP02	1982 (T. Newman, Riverside County Historical Comm.)	
P-33-006937		Other - Crawford-Villalobos House; Other - Ser. No. 33-2507-15	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006938		Other - Ser. No. 33-2507-16	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Commission)	
P-33-006939		Other - Albert Haight House; Other - Ser. No. 33-2507-11	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006940		Other - L. Boffing House; Other - Ser. No. 33-2507-19	Building	Historic	HP02	1982 (Jim Warner, Riverside County Historical Commision)	RI-04411
P-33-006941		Other - Ser. No. 33-2507-18	Building	Historic	HP02; HP33	1982 (Jim Warner, Riverside County Historical Commission)	
P-33-006942		Other - Raya House; Other - Ser. No. 33-2507-20	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Commission)	
P-33-006943		Other - Our Lady of Guadalupe Church; Other - Ser. No. 2507-21	Building	Historic	HP16	1982 (Linda Warner, Riverside County Historical Commission)	RI-07887
P-33-006944		Other - Ser. No. 33-2507-22	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006945		Other - P.W. Everington; Other - Ser. No. 33-2507-23	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-006947		Other - Ser. No. 33-2507-25; National Register - 3S	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006948		Other - McCright House	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Commission)	
P-33-006949		Other - McCright House; Other - Ser. No. 33-2507-27	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Commission)	
P-33-006950		Other - Sam Everington - D. Stenson House; Other - Ser. No. 33-2507-28	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Commission)	
P-33-006951		Other - Ser. No. 33-2507-29	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006952		Other - H. Dakin; Other - Ser. No. 33-2507-30	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006953		Other - Ser. No. 33-2507-31	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006954		Other - Ser. No. 33-2507-32	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006955		Other - W.W. Ayers; Other - Ser. No. 33-2507-33	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Commission)	
P-33-006956		Other - W.H. Ayers House; Other - Ser. No. 33-2507-34	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006957		Other - Hagerty House; Other - Ser. No. 33-2507-35	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.)	
P-33-006958		Other - Yoder; Other - Ser. No. 33-2507-36	Building	Historic	HP02	1982 (Maureen Gayk, Riverside County Historical Comm.)	
P-33-006959		Other - Johnson-Lunderman House; Other - Ser. No. 33-2507-37	Building	Historic	HP02	1982 (Jim Warner, Riverside County Historical Comm.)	
P-33-006960		Other - Stevenson House	Building	Historic	HP02	1982 (Jim Warner, Riverside County Historical Comm.)	
P-33-006961		Other - Ben Kidd - Laymon House; Other - Ser. No. 33-2507-39	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	
P-33-006962		Other - Mr. Kidd's Home; Other - Ser. No. 33-2507-40	Building	Historic	HP02	1982 (Linda Warner, Riverside County Historical Comm.)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-006963		Other - 513 Transit Ave.; Other - Ser. No. 33-2507-41	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.); 2003 (Carrie Chasteen, Myra L. Frank & Associates)	RI-10652
P-33-006964		Other - Ser. No. 33-2507-42	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006965		Other - Ser. No. 33-2507-43	Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006966			Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006967			Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.)	
P-33-006968			Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006969			Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Community)	
P-33-006970			Building	Historic	HP02	1982 (Thelma Newman, Riverside County Historical Comm.)	
P-33-008650	CA-RIV-006166	Other - CRM TECH 362-1		Historic		1998 (Bruce Love, CRM TECH, Riverside, CA)	RI-04226, RI-04227
P-33-008651	CA-RIV-006167	Other - CRM TECH 362-2		Historic		1998 (Bruce Love, CRM TECH, Riverside, CA)	RI-04226, RI-04227
P-33-008752	CA-RIV-006237/H	Other - CRM TECH 388-1/H	Site	Prehistoric, Historic	AH04; AP02; AP03	1999 (Bruce Love, CRM TECH, Riverside, CA)	RI-04229, RI-05748
P-33-009006	CA-RIV-006351H	Other - Southwest V-Ditch Site No. 1	Site	Historic	AH04	1999 (Tetra Tech, Inc., Tetra Tech, Inc.)	RI-05748
P-33-009529		Other - Highgrove Hydroelectric Plant; Other - RIV-024	Building, Structure, Site	Historic	HP09	1968 (Floyd Mcball, n/a)	
P-33-009774		Other - C-Riverside East-C-1; Other - Southern Pacific Railroad	Other	Historic	HP11	1999 (S. Ashkar, Jones & Stokes)	RI-04404, RI-05056, RI-07924
P-33-012154		Other - 1608 La Cadena Drive East, Riverside; Other - Prop# 126259; Other - DOE-33-98-0012-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans--District 8)	RI-06088

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-012155		Other - 2067 Marlborough Avenue, Riverside; Other - Prop# 126262; Other - DOE-33-98-0015-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans--District 8)	RI-06088
P-33-012156		Other - 2068 Marlborough Avenue, Riverside; Other - Prop# 126261; Other - DOE-33-98-0014-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans--District 8)	RI-06088
P-33-012157		Other - 2075 Marlborough Avenue, Riverside; Other - Prop# 126263; Other - DOE-33-98-0016-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012158		Other - 2076 Marlborough Avenue, Riverside; Other - Prop# 126260; Other - DOE-33-98-0013-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012159		Other - 2076 Blenheim Street, Riverside; Other - Prop# 126265; Other - DOE-33-98-0018-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012160		Other - 2050 Blenheim Street, Riverside; Other - Prop# 126264; Other - DOE-33-98-0017-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012161		Other - 2051 Blenheim Street, Riverside; Other - Prop# 126266; Other - DOE-33-98-00-0019-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	
P-33-012162		Other - 2037 Milton Street, Riverside; Other - Prop# 126269; Other - DOE-33-98-0022-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-012163		Other - 2023 Milton Street, Riverside; Other - Prop# 126268; Other - DOE-33-98-0021-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012164		Other - 2009 Milton Street, Riverside; Other - Prop# 126267; Other - DOE-98-0020-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012167		Other - 1659 Mathews Street, Riverside; Other - Prop# 126256; Other - DOE-33-98-0009-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012168		Other - 1645 Mathews Street, Riverside; Other - Prop# 126257; Other - DOE-33-98-0010-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012169		Other - 1635 Mathews Street, Riverside; Other - Prop# 126258; Other - DOE-33-98-0011-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012170		Other - 1179 La Cadena Drive West, Riverside; Other - Prop# 126271; Other - DOE-33-98-0024-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-012171		Other - 1964 Spring Garden Street, Riverside; Other - Prop# 126270; Other - DOE-33-98-0023-0000; National Register - 6Y	Building	Historic	HP02	1998 (David Bricker, Caltrans District 8)	RI-06088
P-33-013078		Other - CRM TECH 1052-1H	Building	Historic	HP02	2003 (Josh Smallwood, CRM TECH)	RI-05993
P-33-013218		Other - CRM TECH 1018-1H	Building	Historic	HP02	2003 (Bai "Tom" Tang, CRM TECH)	
P-33-013535		Other - CRM TECH 1186-1H	Building	Historic	HP02	2003 (Bai "Tom" Tang, CRM TECH)	RI-06001
P-33-013536		Other - CRM TECH 1187-1H	Building	Historic	HP02	2003 (Josh Smallwood, CRM TECH)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-014884				Historic		2005 (Tibbet, Casey, CRM Tech)	
P-33-014885				Historic		2005 (Tibbet, Casey, CRM Tech)	
P-33-014886				Historic		2005 (Tibbet, Casey, CRM Tech)	
P-33-016644	CA-RIV-008722	Other - AE-SBMP-1H	Site	Historic	AH03; AH06	2007 (R. Lichtenstein, and D. Largo, Applied EarthWorks, Inc.)	RI-07355
P-33-017554	CA-RIV-007508	Other - AE-PVL-1H; Other - Atlantic & Pacific Railroad; Other - Atchison, Topeka & Santa Fe Railway; Other - BNSF	Structure	Historic	HP39	2009 (Hamilton, M.C. and J. George, Applied EarthWorks, Inc. Hemet)	
P-33-022126	CA-RIV-011333	Other - Site 33-11446/CA-RIV-6828H (Riverside Highland Water Company pipeline); Other - CRM TECH 2700-1	Site	Historic	AH06	2013 (Daniel Ballester and Daniel Perez, CRM TECH)	RI-08937
P-33-024727		Other - Verizon Wireless Candidate "Electric"; Other - Fraternal Order of Eagles FOE Aerie Lodge No. 997 of Revierside	Building	Historic	HP13	2015 (K.A. Crawford, Crawford Historic Services)	
P-33-028056	CA-RIV-012668	Other - GP-1; Voided - P-33-028077 [CA-RIV-012675]	Site	Historic	AH06	2017 (Breana Campbell, Rincon Consulants, Inc)	RI-09786
P-33-028761		Other - 395 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028762		Other - 403 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028763		Other - 409 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028781		Other - 445 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028782		Other - 472 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028783		Other - 489 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028784		Other - 505 Transit Ave	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-028785		Other - 521 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028786		Other - 535 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028787		Other - 543 Transit Ave	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028789		Other - 539 Transit Ave	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028790		Other - 563 Transit Ave	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028791		Other - 591 Transit Ave	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028805		Other - 569 Transit Ave.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03693	NADB-R - 1084465; Voided - MF-3996	1991	FOSTER, JOHN M., JAMES J. SCHMIDT, CARMEN A. WEBER, GWENDOLYN R. ROMANI, and ROBERTA S. GREENWOOD	CULTURAL RESOURCE INVESTIGATION: INLAND FEEDER PROJECT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	GREENWOOD & ASSOCIATES	33-000021, 33-000024, 33-000399, 33-000608, 33-001017, 33-001697, 33-002504, 33-002505, 33-002951, 33-003098
RI-07355		2007	Formica, Tracy H. and Peggy Beedle	Cultural Resources Report for the San Bernardino Transmission Main Replacement Project, San Bernardino and Riverside Counties, California	Applied EarthWorks, Inc.	33-004787, 33-016644
RI-08771		2010	Bai 'Tom' Tang	Preliminary Historical/Archaeological Resource Study Southern California Regional Rail Authority (SCRRA) Perris Valley Line Positive Train Control (PTC) Project In and near the Cities of Riverside, Perris, and Menifee Riverside County, California CRM TECH Contract No. 2444	CRM TECH	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-01045	NADB-R - 1081140; Voided - MF-0989	1978	David Chavez	Cultural Resources Evaluation of the Four Corners Interconnect Facilities, San Bernardino and Riverside Counties, California	Consulting Archaeologist, Mill Valley, CA	
RI-01046	NADB-R - 1083247; Voided - MF-0989	1978	David Chavez	Final Cultural Resources Evaluation for the Rialto Crude Oil Tank Farm to the Four Corners Pipeline, Kern County, Calfiornia.	URS Company, San Mateo, CA	33-000497
RI-01698	NADB-R - 1082025; Voided - MF-1826	1983	DROVER, CHRISTOPHER	AN ARCHAEOLOGICAL ASSESSMENT OF TENTATIVE TRACT 12649 IN HIGHGROVE, CALIFORNIA	AUTHOR(S)	
RI-03189	NADB-R - 1083751; Other - 89-90; Voided - MF-3408	1990	PEAK AND ASSOCIATES and Brian F. Mooney Associates	CULTURAL RESOURCES ASSESSMENT OF AT&T'S PROPOSED SAN BERNARDINO TO SAN DIEGO FIBER OPTIC CABLE, SAN BERNARDINO, RIVERSIDE AND SAN DIEGO COUNTIES, CALIFORNIA	PEAK AND ASSOCIATES & BRIAN F. MOONEY ASSOCIATES	
RI-03190	NADB-R - 1083752; Other - 89-90; Voided - MF-3408	1990	PEAK AND ASSOCIATES	PART III, ADDENDUM TO: CULTURAL RESOURCES ASSESSMENT OF AT&T'S PROPOSED SAN BERNARDINO TO SAN DIEGO FIBER OPTIC CABLE, SAN BERNARDINO, RIVERSIDE, AND SAN DIEGO COUNTIES, CALIFORNIA	PEAK AND ASSOCIATES	33-000805, 33-001017, 33-001057, 33-001183, 33-002013, 33-002696, 33-002701, 33-002711, 33-002725
RI-03383	NADB-R - 1084072; Voided - MF-3622	1991	PADON, BETH	HISTORIC PROPERTY CLEARANCE REPORT FOR THE PROPOSED ACQUISITION OF TWO PARCELS IN SOUTHEAST AND SOUTHWEST QUADRANTS OF ROUTE 60/91/215 INTERCHANGE. SUPPLEMENT TO OCTOBER 11, 1991, HISTORIC PROPERTY CLEARANCE REPORT.	LSA ASSOCIATES, INC.	33-004495, 33-004496
RI-03491	NADB-R - 1084162; Voided - MF-3749	1991	HALLARAN, KEVIN	THE GAGE CANAL: A NARRATIVE HISTORY [EXCERPT FROM DRAFT HAER REPORT, PP 108-180)	HALLARAN AND CHRISTOPHER FORD	33-004768
RI-03508	NADB-R - 1084193; Voided - MF-3771	1992	HAYDEN, WILLIAM E.	A CULTURAL RESOURCE ASSESSMENT CONDUCTED FOR SUGARLOAF PROPOSED RESERVOIR SITE IN THE CITY OF RIVERSIDE, CALIFORNIA	ARCHAEOLOGICAL RESOURCE MANAGEMENT CORP.	33-004768
RI-03509	NADB-R - 1084236; Voided - MF-3771	1992	HAYDEN, WILLIAM E.	REVISED: A CULTURAL RESOURCE ASSESSMENT CONDUCTED FOR SUGARLOAF PROPOSED RESERVOIR SITE IN THE CITY OF RIVERSIDE, CALIFORNIA	Archaeological Resource Management Corporation	33-004768

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03605	NADB-R - 1084329; Voided - MF-3879	1993	WLODARSKI, ROBERT J.	DRAFT REPORT: AN ARCHAEOLOGICAL SURVEY REPORT DOCUMENTING THE EFFECTS OF THE RCIC I-215 IMPROVEMENT PROJECT IN MORENO VALLEY, RIVERSIDE COUNTY, TO ORANGE SHOW ROAD IN THE CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA.	HISTORICAL, ENVIRONMENTAL, ARCHAEOLOGICAL RESEARCH TEAM, Calabasas, CA	33-003815, 33-004299, 33-004495, 33-004496, 33-004768, 33-004787, 33-004791
RI-03633	NADB-R - 1085822	2000	JACKSON, ADRIANNA L.	CULTURAL RESOURCE PHASE I INVENTORY: AN ARCHAEOLOGICAL ASSESSMENT OF A PORTION OF SPRING MOUNTAIN RANCH IN HIGHGROVE, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	33-002530, 33-004197, 33-006946
RI-03851	NADB-R - 1084724; Other - PM 28040; Voided - MF-4195	1994	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF TENTATIVE PARCEL MAP 28040	AUTHOR	
RI-04225	NADB-R - 1085432; Voided - MF-4697	1998	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF MP-002-989 (WESTERN DOOR).	AUTHOR	
RI-04227	NADB-R - 1085437; Voided - MF-4698	1998	LOVE, BRUCE and BAI "TOM" TANG	CULTURAL RESOURCES REPORT: TENTATIVE TRACT MAP NO. 29097, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH	33-008650, 33-008651
RI-04228	NADB-R - 1085434; Submitter - CRM TECH Contract #370; Voided - MF-4699	1999	LOVE, BRUCE and BAI "TOM" TANG	CULTURAL RESOURCES REPORT: TENTATIVE TRACT 29219, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH, Riverside, CA	33-005712
RI-04230	NADB-R - 1085436; Submitter - 418; Voided - MF-4701	1999	LOVE, BRUCE and BAI "TOM" TANG	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT: TRACT MAP 28453, 3330 CENTER STREET, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH	
RI-04379	NADB-R - 1085705; Submitter - 569; Voided - MF-4881	2000	LOVE, BRUCE, MARIAM DAHDUL, and MICHAEL HOGAN	INDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES AT&T WIRELESS SITE PB 2002-032 COMMUNITY OF HIGHGROVE RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-04391	NADB-R - 1085718; Voided - MF-4893	2000	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF PALMYRITA 4 (MP-002-923) 6.13-ACRES OF LAND LOCATED IN THE CITY OF RIVERSIDE RIVERSIDE COUNTY, CALIFORNIA	JEAN A. KELLER	33-003957, 33-004196, 33-004197, 33-004198, 33-004200, 33-004768, 33-004787
RI-04393	NADB-R - 1085720; Voided - MF-4895	2000	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF MALBOROUGH TECH CENTER 5.60 ACRES OF LAND LOCATED IN THE CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	JEAN A. KELLER	33-001759, 33-001987, 33-002199, 33-002638, 33-003957, 33-004196, 33-004197, 33-004198, 33-004200, 33-004495, 33-004637, 33-004768, 33-004787
RI-04404	NADB-R - 1085736; Voided - MF-4913	2000	JONES AND STOKES ASSOCIATES, INC.	FINAL CULTURAL RESOURCES INVENTORY REPORT FOR THE WILLIAMS COMMUNICATIONS, INC., FIBER OPTIC CABLE SYSTEM INSTALLATION PROJECT, RIVERSIDE TO SAN DIEGO, CALIFORNIA VOL I-IV.	JONES AND STOKES ASSOCIATES, INC.	33-000816, 33-000817, 33-000862, 33-001845, 33-002970, 33-003081, 33-003839, 33-004202, 33-004624, 33-004744, 33-004768, 33-007587, 33-007601, 33-008105, 33-008172, 33-009772, 33-009773, 33-009774, 33-009775, 33-009776
RI-04411	NADB-R - 1085748; Submitter - 615; Voided - MF-4920	2000	LOVE, BRUCE, BAI "TOM" TANG, MARIAM DUHDUL, and ADRIAN SANCHEZ MORENO	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT: ROBERT AUST INDUSTRIAL OFFICE PARK, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	33-006940
RI-04430	NADB-R - 1085778; Voided - MF-4939	2000	JONES AND STOKES ASSOCIATES, INC.	CULTURAL RESOURCES INVENTORY REPORT FOR WILLIAMS COMMUNICATIONS, INC. FIBER OPTIC CABLE SYSTEM INSTALLATION PROJECT, RIVERSIDE, CA TO THE CA/AZ BORDER, RIVERSIDE, SAN BERNARDINO, & IMPERIAL COUNTIES, CA, VOL I-III	JONES AND STOKES ASSOCIATES, INC.	33-000809, 33-002262, 33-003438, 33-003439, 33-003440, 33-003442, 33-003946, 33-009498, 33-009499, 33-009500
RI-04431	NADB-R - 1085779; Voided - MF-4940	1999	JONES AND STOKES ASSOCIATES, INC.	CULTURAL RESOURCES INVENTORY REPORT FOR WILLIAMS COMMUNICATIONS, INC. PROPOSED FIBER OPTIC CABLE SYSTEM INSTALLATION PROJECT, LOS ANGELES TO RIVERSIDE, LOS ANGELES & RIVERSIDE COUNTIES, CA	JONES AND STOKES ASSOCIATES, INC., Sacramento, CA	
RI-04652	NADB-R - 1086011	2002	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF DR-096-012, 19.6 ACRES OF LAND IN THE CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-04653	NADB-R - 1086012	2002	KELLER, JEAN A.	A PHASE I CULTURAL RESOURCES ASSESSMENT OF THE COLUMBIA/RIDGE PROJECT, 13.75 ACRES OF LAND IN THE CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	
RI-04813	NADB-R - 1086175; Other - 118, 119, 120, 121, 122, 123	1993	NATIONAL PARK SERVICE, HAER	CALIFORNIA CITRUS HERITAGE RECORDING PROJECT: PHOTOGRAPHS, WRITTEN HISTORICAL AND DESCRIPTIVE DATA, REDUCED COPIES OF MEASURED DRAWINGS FOR: ARLINGTON HEIGHT CITRUS LANDSCAPE, GAGE IRRIGATION CANAL, NATIONAL ORANGE COMPANY PACKING HOUSE, VICTORIA BRIDGE, AND UNION PACIFIC RAILROAD BRIDGE	NATIONAL PARK SERVICE, HISTORIC AMERICAN ENGINEERING RECORD	33-003361, 33-004768, 33-009772
RI-05011	NADB-R - 1086373; Submitter - 11-01-12-618	2001	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION OF THE PROPOSED COLUMBIA BUSINESS CENTER NEAR HIGHGROVE, RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL.	
RI-05056	NADB-R - 1086418; Submitter - 01-02-03-708	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED CORONA FEEDER MASTER PLAN PROJECT AREA, RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL	33-003832, 33-004768, 33-004791, 33-009774
RI-05233	NADB-R - 1086596	2000	WHITE, LAURA	RECORDS SEARCH RESULTS FOR SPRINT PCS FACILITY RV40XC704A (A STORAGE PLACE), HIGHGROVE, RIVERSIDE COUNTY, CA	MICHAEL BRANDMAN ASSOCIATES	
RI-05238	NADB-R - 1086601	2004	DICE, MICHAEL	ARCHAEOLOGICAL RESOURCES ASSESSMENT OF THE SPRINGBROOK ESTATES PROJECT: A 183.95 ACRE SITE LOCATED IN THE COMMUNITY OF HIGHGROVE, COUNTY OF RIVERSIDE, CA	MICHAEL BRANDMAN ASSOCIATES	33-004197, 33-004198, 33-011445, 33-011446, 33-011447, 33-011448
RI-05389	NADB-R - 1086752	2003	KELLER, JEAN	A PHASE I CULTURAL RESOURCES ASSESSMENT OF DR 066-023, +/-7.77 ACRES OF LAND IN THE CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	JEAN KELLER	
RI-05719	NADB-R - 1087082; Submitter - CA-8547A	2003	Heinz Lumpp	Letter Report: Proposed Cellular Tower Project in Riverside County, California, Site Name/Number: Ca-8547A/ Hunter Park	EarthTouch, Inc.	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-05744	NADB-R - 1087107; Submitter - 1018	2003	TANG, BAI and MICHAEL HOGAN	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT FOR ASSESSOR'S PARCEL NUMBERS 249-110-050 AND -051, PROPOSED SPRUCE FINANCIAL CENTER 2 PROJECT, CITY OG RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	
RI-05747	NADB-R - 1087110	2002	WHITE, LAURIE S., DAVID VAN HORN, and ROBERT S. WHITE	HISTORICAL INVESTIGATIONS AT THE VIVIENDA AND EUREKA RANCHES, SPRING MOUNTAIN RANCH PROJECT, HIGHGROVE AREA OF UNINCORPORATED RIVERSIDE COUNTY	ARCHAEOLOGICAL ASSOCIATES	33-004197, 33-006946, 33-013338, 33-013339, 33-013340, 33-013341, 33-013342
RI-05748	NADB-R - 1087111; Submitter - 994	2003	DOAN, UYEN K., MICHAEL HOGAN, and BAI TANG	ARCHAEOLOGICAL SENSITIVITY ASSESSMENT: HUNTER PARK REDEVELOPMENT PLAN AMENDMENT, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	33-001984, 33-004495, 33-004791, 33-008752, 33-009006, 33-010902
RI-05993	NADB-R - 1087356; Submitter - 1052	2003	TIBBET, CASEY and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, TENTATIVE TRACT MAP NO. 30907, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	33-013078
RI-05998	NADB-R - 1087361; Submitter - 1187	2003	TANG, BAI, MICHAEL HOGAN, CASEY TIBBET, and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, ASSESSOR'S PARCEL NUMBER 210-110-030, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	
RI-06001	NADB-R - 1087364; Submitter - 1186	2003	TANG, BAI, MICHAEL HOGAN, CASEY TIBBET, and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, ASSESSOR'S PARCEL NUMBER 210-080-043, 1793 CHICAGO AVENUE, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	33-013535
RI-06088	Caltrans - 08230-466900; NADB-R - 1087451	1998	BRICKER, DAVID	FIRST SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT FOR THE IMPROVEMENT OF INTERSTATE ROUTE 215/STATE ROUTE 91/ STATE ROUTE 60, RIVERSIDE COUNTY, CA	CALTRANS- DISTRICT 8	33-004495, 33-009681, 33-011517, 33-011521, 33-011523, 33-011537, 33-011539, 33-011561, 33-012149, 33-012150, 33-012151, 33-012152, 33-012153, 33-012154, 33-012155, 33-012156, 33-012157, 33-012158, 33-012159, 33-012160, 33-012162, 33-012163, 33-012164, 33-012165, 33-012166, 33-012167, 33-012168, 33-012169, 33-012170, 33-012171

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-06148	NADB-R - 1087511	2004	AISLIN-KAY, MARNIE and CHRISTEEN TANIGUCHI	LETTER REPORT: RECORDS SEARCH AND SITE VISIT RESULTS FOR SPRINT TELECOMMUNICATIONS FACILITY CANDIDATE RV60XC824A (MANCILLA PROPERTY) 1361 DODSON WAY, RIVERSIDE, RIVERSIDE COUNTY, CA	MICHAEL BRANDMAN ASSOCIATES	
RI-06476	NADB-R - 1087841; Submitter - CONTRACT #1665	2005	TANG, BAI, MICHAEL HOGAN, CASEY TIBBET, and DANIEL BALLESTER	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, TENTATIVE TRACT MAP 33506, 3184, 3224, AND 3262 CHASE ROAD, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	
RI-06840	Submitter - LSA Project NO. KRO0701	2007	Goodwin, Riordan	Cultural Resources Assessment, Calvary the Brook Project (APN 255-031-018), Community of Highgrove, Riverside County, California	LSA Associates, Inc., Riverside, CA	
RI-06961		2006	Tejada, Barbara	Historic Property Survey Report	District 8 Caltrans	
RI-07173	Submitter - LSA Project No. PBM330T12	2004	Caprice D. Har[er	Cultural Resource Assessment, Cingular Wireless, Facility No. SB 305-01, Unincorporated Riverside County, California	LSA Associates, Inc.	
RI-07235		2003	Caprice D. harper	Cultural Resource Assessment for Cingular Wireless Facility No. LA S08-01 in Riverside County, California	LSA Associates, Inc,	
RI-07322		2006	Bonner, Wayne and Aislin-Kay, Marnie	Cultural Resource Records Search and Site Visit Results for T-Mobile Telecommunications Facility Candidate IE24032C (Essex Commercial Center), 1855 Iowa Avenue, Riverside, Riverside County, California.	Michael Brandman Associates	
RI-07352		2007	Tibbet, Casey, Austerman Gini, and Bell, Bill	Cultural Resources Assessment: Columbia Avenue/Iowa Avenue Roadway Improvements City of Riverside, Riverside County, California	LSA Associates, Inc	
RI-07503	Submitter - Job No.07-07-07-1292	2007	McKenna, Jeanette A.	Addendum Report: A Phase I Cultural Resources Investigation of the Proposed Columbia Business Center Near Highgrove, Riverside County, California	McKenna et. al.	
RI-08093		2008	Jennifer M. Sanka	Phase I Cultural Resources Assessement Highgrove Bussiness Center Project Highgrove, Riverside County, California	Michael Brandman Associtates	33-006923

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-08270		2000	Christopher E. Dover	A Cultural Resources Inventory: An Archaeological Assessment of Sabert Corporation- A Commercial Parcel in Highgrove Riverside County, California		
RI-08526	Other - WO 800316955/4505-3305; Other - WO 800316955/4505-3305	2010	James J. Schmidt	Letter Report: Vista-La Colina 66 kV Deteriorated Pole Replacement Project, Highgrove area (WO 800316955/4505-3305), Riverside County, California	Compass Rose Archaeological, Inc.	
RI-08937	Submitter - Contract No. 2700	2013	Bai "Tom" Tang and Michael Hogan	Historical/Archaeological Resources Survey, Columbia Business Center Project, City of Riverside, Riverside County, California	CRM Tech	33-022126
RI-08943		2011	Barbara Loren-Webb	A Phase I Archeological Records Search and Survey Report On APN 255-070-013-1, 7.43-Acre Parcel In Highgrove, California In Riverside County	L&L Environental, Inc.	
RI-09414		2013	Brian F. Smith and Kyle J. Coulter	Phase I Cultural Resouces Survey for the Bixby Highgrove Project TTM 36668 County of Riverside	Brian F. Smith and Associates, Inc.	
RI-09511		2013	Bai "Tom" Tang, Michael Hogan, Deirdre Encarnacion, Daniel Ballester, and Terri Jacquemain	Historical/Archaeological Resources Survey Report: Colombia Business Center Project, City of Riverside, Riverside County, California	CRM TECH	
RI-09786	Other - Rincon Consultants Project No. 17-03907	2017	Hannah Haas and Benjamin Vargas	Phase I Cultural Study for the 750 Marlborough Drive Project	Rincon Consultants, Inc.	33-028056
RI-09795		2016	Hannah Haas, Breana Campbell, and Christopher Duran	Phase I Cultural Resources Study for the 797 Palmyrita Trailer Parking Lot Project, Riverside, Riverside County, California	Rincon Consultants	
RI-09832		2015	Carrie D Wills and Sarah A Williams	Cultural Resource Records Search Results for T-Mobile West, LLC Candidate '824716 Essex' , 1855 Iowa Avenue, Riverside, Riverside County, California	First Carbon Solutions	
RI-10030	IC Record Search Nbr - 1944	1998	ROGER D MASON and WAYNE H BONNER	CULTURAL RESOURCES RECORDS SEARCH AND LITERATURE REVIEW FOR A PACIFIC BELL MOBILE SERVICES TELECOMMUNICATIONS FACILITY: CM 046-08 CITY OF RIVERSIDE, CALIFORNIA	CHAMBERS GROUP, INC	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-10124		2017	Riordan Goodwin	Center Park Residential Project City of Riverside County, California	LSA	
RI-10673	Other - EBI Project No. 6115003217	2015	Gabriel Ocampo	La Condena-La Cadena/ Ensite # 25677 (288215)	EBI Consulting	
RI-10714		2018	Riordan Goodwin	Cultural Resources Assessment Center Park Residential Project, City of Riverside, Riverside County, California	LSA Associates, Inc.	

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Appendix C:
Native American Heritage Commission and Tribal Correspondence

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NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
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COMMISSIONER
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Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

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

September 15, 2022

Stefanie Griffin
FirstCarbon Solutions

Via Email to: sgriffin@fcs-intl.com & mdolan@fcs-intl.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Palmyrita Avenue Warehouse Project, Riverside County

Dear Ms. Griffin:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Los Coyotes Band of Cahuilla and Cupeno Indians on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Riverside County
9/15/2022

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Agua Caliente Band of Cahuilla Indians
Reid Milanovich, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
laviles@aguacaliente.net

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
84-001 Avenue 54 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 933 - 2200
Fax: (619) 445-9126
michaelg@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 368 - 4382
Fax: (619) 445-9126
ceo@ebki-nsn.gov

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Palmyrita Avenue Warehouse Project, Riverside County.

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino Tongva Indians of California Tribal Council
Christina Conley, Tribal Consultant and Administrator
P.O. Box 941078 — Gabrielino
Simi Valley, CA, 93094
Phone: (626) 407 - 8761
christina.marsden@alumni.usc.edu

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

Los Coyotes Band of Cahuilla and Cupeño Indians
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

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Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd.
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com
Cupeno
Luiseno

Pechanga Band of Indians
Mark Macarro, Chairperson
P.O. Box 1477
Temecula, CA, 92593
Phone: (951) 770 - 6000
Fax: (951) 695-1778
epreston@pechanga-nsn.gov
Luiseno

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com
Quechan

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov
Cahuilla

Rincon Band of Luiseno Indians
Cheryl Madrigal, Tribal Historic Preservation Officer
One Government Center Lane
Valley Center, CA, 92082
Phone: (760) 297 - 2635
crd@rincon-nsn.gov
Luiseno

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
One Government Center Lane
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
bomazzetti@aol.com
Luiseno

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov
Serrano

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov
Cahuilla

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com
Serrano

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com
Serrano

Soboba Band of Luiseno Indians
Isaiah Vivanco, Chairperson
P. O. Box 487
San Jacinto, CA, 92581
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov
Cahuilla
Luiseno

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This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Palmyrita Avenue Warehouse Project, Riverside County.

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Thomas Tortez, Chairperson
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
thomas.tortez@torresmartinez-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Palmyrita Avenue Warehouse Project, Riverside County.

September 16, 2022.

Gabrielino-Tongva Tribe
Charles Alvarez
23454 Vanowen Street
West Hills, CA, 91307

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Charles Alvarez:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

As part of the cultural resources assessment, FCS conducted a Sacred Lands File (SLF) search and California Historical Resource Information System (CHRIS) search. The results of the SLF records search was positive. The CHRIS search found 2 historic resources within the project site and 97 resources within a 0.5-mile radius of the project site, 95 of which are historic and one of which is historic and prehistoric. The CHRIS search found 3 reports within the project site and 58 reports within a 0.5 mile radius of the project site. The Native American Heritage Commission (NAHC) suggested you might be able to provide further information. If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input.

Please note that this letter is a request for information pertaining to a cultural resources assessment and is not notification of a project under Senate Bill (SB) 18, Assembly Bill (AB) 52 or Section 106 of the National Historic Preservation Act. Designated lead agencies under the California Environmental Quality Act (CEQA) and National Environmental Policy Act

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E info@fcs-intl.com

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Suite 250
Irvine, CA 92602

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2999 Oak Street Road
Suite 250
Walnut Creek, CA 94597

Central Valley
7726 N. First Street
#413
Fresno, CA 93720

Inland Empire
967 Kendall Drive
#A-537
San Bernardino, CA 92407

Sacramento Valley
2351 Sunset Boulevard
Suite 170-301
Rocklin, CA 95765

Utah
2901 Bluegrass Boulevard
Suite 200-62
Lehi, UT 84043

Connecticut
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Suite 450
Shelton, CT 06484

New York
10 Monument Street
Deposit, NY 13754

56 Broome Corporate Parkway
Conklin, NY 13748

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PORTUGAL

FRANCE

KENYA

AUSTRALIA

PHILIPPINES

CHINA

MALAYSIA

SINGAPORE

(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Ann Brierty:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
Wayne Walker, Co-Chairperson
P. O. Box 343
Patton, CA, 92369

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Co-Chairpersons Mark Cochrane and Wayne Walker:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Gabrielino Tongva Indians of
California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490
Bellflower, CA, 90707

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Dorame:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road
Alpine, CA, 91901

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Vice Chairperson Garcia:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

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Bay Area
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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive
Palm Springs, CA, 92264

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Director Patricia Garcia-Plotkin:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

As part of the cultural resources assessment, FCS conducted a Sacred Lands File (SLF) search and California Historical Resource Information System (CHRIS) search. The results of the SLF records search was positive. The CHRIS search found 2 historic resources within the project site and 97 resources within a 0.5-mile radius of the project site, 95 of which are historic and one of which is historic and prehistoric. The CHRIS search found 3 reports within the project site and 58 reports within a 0.5 mile radius of the project site. The Native American Heritage Commission (NAHC) suggested you might be able to provide further information. If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic
Preservation Officer
PMB 50, 35008 Pala Temecula Rd.
Pala, CA, 92059

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Shasta Gaughen:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, CA, 90012

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Goad:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1
Campo, CA, 91906

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Goff:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670
Anza, CA, 92539

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Hamilton:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Mesa Grande Band of Diegueno
Mission Indians
Michael Linton, Chairperson
P.O Box 270
Santa Ysabel, CA, 92070

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Linton:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Pechanga Band of Indians
Mark Macarro, Chairperson
P.O. Box 1477
Temecula, CA, 92593

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Macarro:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Rincon Band of Luiseno Indians
Cheryl Madrigal, Tribal Historic
Preservation Officer
One Government Center Lane
Valley Center, CA, 92082

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Cheryl Madrigal:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

San Manuel Band of Mission Indians
Jessica Mauck, Director of
Cultural Resources
26569 Community Center Drive
Highland, CA, 92346

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Jessica Mauck:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
One Government Center Lane
Valley Center, CA, 92082

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Mazzetti:

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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Jill McCormick:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Agua Caliente Band of Cahuilla Indians
Reid Milanovich, Chairperson
5401 Dinah Shore Drive
Palm Springs, CA, 92264

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Milanovich:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road
Boulevard, CA, 91905

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Javaughn Miller:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA, 91778

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Morales:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural
Resource Department
P.O. BOX 487
San Jacinto, CA, 92581

Subject: **Proposed Palmyrita Avenue Warehouse Project**

Dear Joseph Ontiveros:

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road
Boulevard, CA, 91905

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Parada:

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road
Alpine, CA, 91901

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Pinto:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820
Anza, CA, 92539

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Tribal Chair Redner:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA, 91723

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Salas:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371
Anza, CA, 92539

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Salgado:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

As part of the cultural resources assessment, FCS conducted a Sacred Lands File (SLF) search and California Historical Resource Information System (CHRIS) search. The results of the SLF records search was positive. The CHRIS search found 2 historic resources within the project site and 97 resources within a 0.5-mile radius of the project site, 95 of which are historic and one of which is historic and prehistoric. The CHRIS search found 3 reports within the project site and 58 reports within a 0.5 mile radius of the project site. The Native American Heritage Commission (NAHC) suggested you might be able to provide further information. If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input.

Please note that this letter is a request for information pertaining to a cultural resources assessment and is not notification of a project under Senate Bill (SB) 18, Assembly Bill (AB) 52 or Section 106 of the National Historic Preservation Act. Designated lead agencies under the California Environmental Quality Act (CEQA) and National Environmental Policy Act

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F +1 714 508 4110
E info@fcs-intl.com

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Irvine, CA 92602

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Walnut Creek, CA 94597

Central Valley
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#413
Fresno, CA 93720

Inland Empire
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Rocklin, CA 95765

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New York
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Deposit, NY 13754

56 Broome Corporate Parkway
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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Torres-Martinez Desert Cahuilla Indians
Thomas Tortez, Chairperson
P.O. Box 1160
Thermal, CA, 92274

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Tortez:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
84-001 Avenue 54
Coachella, CA, 92236

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Vance:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

Enclosed is a Records Search map with a 0.5-mile buffer around the site for your reference.

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Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Soboba Band of Luiseno Indians
Isaiah Vivanco, Chairperson
P. O. Box 487
San Jacinto, CA, 92581

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Vivanco

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site in the City of Riverside.

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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

September 16, 2022.

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway
Indio, CA, 92203

Subject: Proposed Palmyrita Avenue Warehouse Project

Dear Chairperson Welmas:

FirstCarbon Solutions (FCS) is preparing a cultural resources assessment for the proposed Palmyrita Avenue Warehouse Project on behalf of the City of Riverside. As part of the environmental review process, we are conducting a cultural analysis.

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(NEPA) are handling project notification and consultation requirements. Please feel free to contact me at 209.608.0028 or via email at sgriffin@fcs-intl.com and thank you for your valuable assistance.

Sincerely,



Stefanie Estelle Griffin, MA,
Archaeologist
FirstCarbon Solutions
967 Kendall Drive # A-537
San Bernardino, CA 92407

Enc: Attachment A: Records Search Map

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-013-2022-003

October 06, 2022

[VIA EMAIL TO:sgriffin@fcs-intl.com]
First Carbon Solutions
Ms. Stefanie Griffin
967 Kendall Drive #A-537
San Bernardino, California 92407

Re: Palmyrita Ave Warehouse

Dear Ms. Stefanie Griffin,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Palmyrita Avenue Warehouse project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. For this reason, the ACBCI THPO requests the following:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1134. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Nicole Raslich
Archaeological Technician
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

AUGUSTINE BAND OF CAHUILLA INDIANS
PO Box 846 84-481 Avenue 54 Coachella CA 92236
Telephone: (760) 398-4722
Fax (760) 369-7161
Tribal Chairperson: Amanda Vance
Tribal Vice-Chairperson: Victoria Martin
Tribal Secretary: Geramy Martin

Date: September 22, 2022

RE: Proposed Palmyrita Avenue Warehouse Project

Dear: Stefanie Estelle Griffin
Archaeologist

Thank you for the opportunity to offer input concerning the development of the above-identified project. We appreciate your sensitivity to the cultural resources that may be impacted by your project and the importance of these cultural resources to the Native American peoples that have occupied the land surrounding the area of your project for thousands of years. Unfortunately, increased development and lack of sensitivity to cultural resources have resulted in many significant cultural resources being destroyed or substantially altered and impacted. Your invitation to consult on this project is greatly appreciated.

At this time, we are unaware of specific cultural resources that may be affected by the proposed project, however, in the event, you should discover any cultural resources during the development of this project please contact our office immediately for further evaluation.

Very truly yours,

Victoria Martin

Victoria Martin, Tribal Vice-Chairperson
Augustine Band of Cahuilla Indians

From: Ryan Nordness
To: Maddie Dolan
Subject: Information request for 4996.017 Proposed Palmyrita Avenue Warehouse Project
Date: Monday, September 19, 2022 5:22:57 PM

Hello Madelyn,
Thank you for reaching out to the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) concerning the proposed project area. YSMN appreciates the opportunity to review the project documentation received by the Cultural Resources Management Department on September 16th 2022. The proposed project is not located bear any known Serrano resources. Thank you again for your correspondence, if you have any additional questions or comments please reach out to me at your earliest convenience.
Respectfully,
Ryan Nordness

Ryan Nordness
Cultural Resource Analyst
Ryan.Nordness@sanmanuel-nsn.gov
O:(909) 864-8933 Ext 50-2022
M:(909) 838-4053
26569 Community Center Dr Highland, California 92346



From: Christina Marsden Conley
To: Maddie Dolan
Cc: Cultural Resources; Robert Dorame
Subject: Re: 4996.017 Proposed Palmyrita Avenue Warehouse Project
Date: Friday, September 16, 2022 10:50:39 AM
Attachments: 4996.0017 Conley.pdf

We have no comment.

Christina Conley
626.407.8761
Native American Cultural Resource Monitor
Gabrielino Tongva Indians of California

****I am presently on a field site with limited communication- please excuse any typos*****

> On Sep 16, 2022, at 10:31 AM, Maddie Dolan <mdolan@fcs-intl.com> wrote:
>
> Hello,
>
> Attached is a request for information pertaining to a cultural resources assessment for the proposed Palmyrita Avenue Warehouse project in the City of Riverside. Please feel free to contact Stefanie Griffin at sgriffin@fcs-intl.com if you would like to provide input. Thank you for your assistance.
>
> Best,
> Madelyn Dolan (she | her | hers)
> **Environmental Services, Assistant Project Manager**
> **Mobile** +1 925 451 7133
>
> **FirstCarbon Solutions (FCS)**
> An ADEC Innovation
> **LinkedIn | Facebook | Twitter**

From: Stefanie Griffin
To: Natalie Adame
Subject: Fwd: Palmyrita Avenue Warehouse Project
Date: Monday, October 17, 2022 4:44:30 PM

Hi Natalie,

Here's another tribe response that needs to be added to the document.

Thanks,

Stefanie

Get Outlook for Android

From: Cheryl Madrigal <CMadrigal@rincon-nsn.gov>
Sent: Monday, October 17, 2022 4:11:05 PM
To: Stefanie Griffin <sgriffin@fcs-intl.com>
Cc: Deneen Pelton <DPelton@rincon-nsn.gov>
Subject: Palmyrita Avenue Warehouse Project

Stefanie,

This email is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Tribe"), a federally recognized Indian tribe and sovereign government in response to your request for information pertaining to cultural and tribal cultural resources on the above referenced project.

After review of the provided documents and our internal information, the Rincon Band has no information on specific Tribal Cultural Resources (TCRs) or Traditional Cultural Properties (TCPs) within the project area to share. However, this does not mean that none exist.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 749 1092 ext. 323 or via electronic mail at cmadrigal@rincon-nsn.gov. Thank you for the opportunity to protect our cultural assets.

Sincerely,

Cheryl

Cheryl Madrigal
Cultural Resources Manager
Tribal Historic Preservation Officer
Cultural Resources Department
Rincon Band of Luiseño Indians
1 West Tribal Road | Valley Center, CA 92082
Office: (760) 749 1092 ext. 323|Cell: 760-648-3000
Fax: 760-749-8901
Email: cmadrigal@rincon-nsn.gov



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Appendix D:
Project Site Photographs

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Photograph 1: Overview photo bearing 40 degrees NE



Photograph 2: Overview photo bearing 79 degrees east



Photograph 3: Overview photo start of transect 3 bearing 285 degrees west



Photograph 4: Overview photo start of transect 5 bearing 81 degrees east



Photograph 5: Overview photo start of transect 6 bearing 290 degrees west



Photograph 6: Overview photo of eastern boundary



Photograph 7: Overview photo of non-accessible area bearing 220 degrees southwest



Photograph 8: Overview photo non-hardscaped area bearing 320 degrees NW



Photograph 9 : Overview photo non-hardscaped area bearing 20 degrees N



Photograph 10: Overview photo non-hardscaped area bearing 140 degrees SE facing Palmyrita Avenue

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Appendix E:
Department of Parks and Recreation Form

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State of California ♉ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 **of** 6 ***Resource Name or #:** (Assigned by recorder) 1151 Palmyrita Avenue
P1. Other Identifier: Barrette Outdoor Living
*P2. **Location:** ☒ **Not for Publication** ☐ **Unrestricted**
***a. County** Riverside **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary)
***b. USGS 7.5' Quad** San Bernardino South **Date** 2022 **T** 2S; **R** 4W; ___ ☐ **of** ___ ☐ **of Sec** 7; S.B **B.M.**
c. Address 1151 Palmyrita Ave City Riverside Zip 92507
d. UTM: (Give more than one for large and/or linear resources) Zone 11s , 468772.22 mE/ 3762813.92mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Accessors Parcel Number (APN): 247-170-039

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The subject property is a single story rectangular industrial building. The building is located along Palmyrita Avenue, in an east/west direction. The roof a is a low pitch side gable, with vertical metal siding that covers the entire building. There is one glass access door and 3 windows on the left-front face of the building, with two floor-to-ceiling garage doors and 4 smaller loading docks.

***P3b. Resource Attributes:** (List attributes and codes) HP8. Industrial Building
***P4.Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) East face of building, view southwest.
***P6. Date Constructed/Age and Source:** ☒ Historic ☐ Prehistoric ☐ Both
***P7. Owner and Address:** BWP Inc.
***P8. Recorded by:** (Name, affiliation, and address) Dr. Dana DePietro, Ph.D, RPA. 2999 Oak Road, Suite 250, Walnut Creek, CA 94597
***P9. Date Recorded:** 9/9/2022
***P10. Survey Type:** (Describe) Intensive Pedestrian Survey
***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Phase I Cultural Resources Assessment Palmyrita Avenue Warehouse Project City of Riverside, Riverside County, California

***Attachments:** ☐NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List): ___

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 2 **of** 6 ***Resource Name or #** (Assigned by recorder) 1151 Palmyrita Avenue
***Map Name:** San Bernardino South ***Scale:** ___ ***Date of map:** _2022___



State of California ♉ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 1151 Palmyrita Avenue **NRHP Status Code**

B1. Historic Name: n/a

B2. Common Name: n/a

B3. Original Use: Industrial building B4. Present Use: Industrial building

***B5. Architectural Style:** Industrial Architecture

***B6. Construction History:** (Construction date, alterations, and date of alterations)

1151 Palmyrita Building was constructed in 1975. There are no records of alterations.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features: n/a**

B9a. Architect: N/A b. Builder: n/a

***B10. Significance: Theme** **Area** 2.33 Acres

Period of Significance n/a **Property Type** Light Industrial **Applicable Criteria** n/a (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) n/a

B11. Additional Resource Attributes: (List attributes and codes) n/a

***B12. References:**

County of Riverside Accessor Office. 2022. https://ca-riverside-acr.publicaccessnow.com/PropertySearch/Valuation/ValueHistory.aspx?p=247170039&a=247170039. Accessed October 10, 2022.

County of Riverside. 2022. https://ca-riverside-acr.publicaccessnow.com/PropertySearch/Valuation.aspx?p=247170039&a=247170039&m=. Accessed October 10, 2022.

Office of the Treasurer-Tax Collector. 2022. https://ca-riverside-ttc.publicaccessnow.com/AccountSearch/AccountSummary/BillDetail.aspx?p=247170039&a=247170039&b=18412578&y=2016&x=18412578&t=Real. Accessed October 11, 2022

Office of the Treasurer-Tax Collector. 2022. https://ca-riverside-ttc.publicaccessnow.com/AccountSearch/AccountSummary.aspx?p=247170039&a=247170039&m=

Continued in Continuation Sheet

B13. Remarks:

Building was constructed in 1975. Riverside County Tax records, regarding the subject structure, go back to 2005. Tax records indicate that the structure was sold to BWP Inc. in 2015 and has remained in BWP, Inc. ownership henceforth.

(Sketch Map with north arrow required.)



***B14. Evaluator:** Dana DePietro, Ph.D, RPA

***Date of Evaluation:** 9/9/2022

(This space reserved for official comments.)

A records search with the County of Riverside Accessors Office, the Office of the Treasurer-Tax Collector for the County of Riverside, the California Newspaper Repository, and Historic Aerials failed in identifying detailed information of the structure.

Tax records with the County of Riverside go back to 2005 and correspondence with the County of Riverside Accessors Office verified that tax and ownership information regarding the subject property is all available on the county website. Historic Aerials shows that the subject property was constructed between 1968-1978 during a growth period of the area, nevertheless, no noteworthy events occurred during the construction period, therefore, it does not meet Criterion A: Event.
A search of newspaper archives and county tax records did not identify any association to a person of local or national interest, therefore the subject property does not meet Criterion B: Person.
Under Criterion C: Architecture, the subject property displays common features of industrial structures built post-World War II, displaying common architectural features of the time, therefore, it is not eligible for listing under Criterion C.
Under Criterion D: Information Potential, there is no evidence that the subject property exhibits any unusual construction features or have the ability to contribute significant information to the overall history of the City or County of Riverside, therefore it is not eligible for listing under Criterion D.



Photo 2: Front face of structure. View southwest.



Photo 3: Front face of structure, with view of the left/south face of structure.



Photo 4: detail of the façade on south face of structure.

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Appendix F:
Cultural Resources Regulations and Evaluation Criteria

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CULTURAL RESOURCES REGULATIONS AND EVALUATION CRITERIA

Local, state, and federal government agencies have developed laws and regulations designed to protect significant cultural resources that may be affected by projects regulated, funded, or undertaken by the agency. Federal and State laws that govern the preservation of historic and archaeological resources of national, State, regional, and local significance include the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and CEQA. In addition, laws specific to work conducted on federal lands include the Archaeological Resources Protection Act (ARPA), the American Antiquities Act, and the Native American Graves Protection and Repatriation Act (NAGPRA).

The following federal or CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed project. An impact would be considered significant if it would affect a resource eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) or if it is identified as a unique archaeological or Tribal Cultural Resource (TCR).

Federal-level Evaluations

Federal agencies are required to consider the effects of their actions on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings under Section 106 of the NHPA Section 106 (36 Code of Federal Regulations [CFR] 800). Additionally, federal agencies are responsible for initiating NHPA Section 106 review and completing the steps outlined in these regulations. They must determine whether NHPA Section 106 applies to a given project and, if so, initiate review in consultation with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO). Federal agencies are also responsible for involving the public and other interested parties. Furthermore, NHPA Section 106 requires that any federal or federally assisted undertaking, or any undertaking requiring federal licensing or permitting, consider the effect of the action on historic properties listed in or eligible for listing in the NRHP. Under the Code of Federal Regulations (36 CFR Part 800.8), federal agencies are specifically encouraged to coordinate compliance with NHPA Section 106 and the NEPA process. The implementing regulations, “Protection of Historic Properties,” are found in 36 Code of Federal Regulations Part 800. Resource eligibility for listing on the NRHP is detailed in 36 Code of Federal Regulations Part 63, and the criteria for resource evaluation are found in 36 Code of Federal Regulations Part 60.4 (a-d).

The NHPA established the NRHP as the official federal list for cultural resources that are considered important for their historical significance at the local, State, or national level. To be determined eligible for listing in the NRHP, properties must meet specific criteria for historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP include—significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, a resource must meet one or all of these eligibility criteria:

a) Is associated with events that have made a significant contribution to the broad patterns of our history; or

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

c) Embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values, represents a significant and distinguishable entity whose components may lack individual distinction; or

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

Criterion D is usually reserved for archaeological resources. Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, buildings that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) A religious property deriving primary significance from architectural or artistic distinction or historical importance.

b) A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life.

d) A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived.

f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance.

g) A property achieving significance within the past 50 years if it is of exceptional importance.

Thresholds of Significance

In consultation with the SHPO/THPO and other entities that attach religious and cultural significance to identified historic properties, the lead agency shall apply the criteria of adverse effect to historic

properties within the Area of Potential Effect (APE). The lead agency official shall consider the views of consulting parties and the public when considering adverse effects.

Federal Criteria of Adverse Effects

Under federal regulations, 36 Code of Federal Regulations Part 800.5, an adverse effect is found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualifies the property for inclusion in the NRHP in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for listing in the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

According to 36 Code of Federal Regulations Part 800.5, adverse effects on historic properties include, but are not limited to, those listed below:

- Physical destruction of or damage to all or part of the property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, which is not consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties per 36 Code of Federal Regulations Part 68 and applicable guidelines.
- Removal of the property from its historic location.
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization.
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

If Adverse Effects are Found

If adverse effects are found, the agency official shall continue consultation as stipulated at 36 Code of Federal Regulations Part 800.6. The agency official shall consult with the SHPO/THPO and other consulting parties to develop alternatives to the undertaking that could avoid, minimize, or mitigate adverse effects to historic resources. According to 36 Code of Federal Regulations Part 800.14(d), if adverse effects cannot be avoided then standard treatments established by the ACHP may be used as a basis for Memorandum of Agreement (MOA).

According to 36 Code of Federal Regulations Part 800.11(e), the filing of an approved MOA, and appropriate documentation, concludes the NHPA Section 106 process. The MOA must be signed by all consulting parties and approved by the ACHP prior to construction activities. If no adverse effects are found and the SHPO/THPO or the ACHP do not object within 30 days of receipt, the agencies' responsibilities under NHPA Section 106 will be satisfied upon completion of report and documentation as stipulated in 36 Code of Federal Regulations Part 800.11. The information must be made available for public review upon request, excluding information covered by confidentiality provisions.

State-level Evaluation Processes

For the purposes of CEQA, cultural resources are broadly divided into the following four categories:

- **Historic Resources**: Historic resources typically refer to buildings, structures, and locations that maintain a connection or association with significant events, individuals, or architectural trends from California's past.
- **Archaeological Resources:** Archaeology is the study of artifacts and material culture with the aim of understanding human activities and cultures in the past. Archaeological resources may be associated with prehistoric indigenous cultures as well as historic periods.
- **Burial Sites and Cemeteries:** Burial sites and cemeteries are formal or informal locations where human remains have been interred.
- **Tribal Cultural Resources:** Tribal cultural resources include sites, features, places, or objects that are of cultural value to one or more California Native American tribes.

More specifically, cultural resources may be understood as resources that have been formally recognized by a lead agency and/or are listed or determined eligible for listing on the CRHR (Public Resources Code [PRC] § 5024.1, Title 14 California Code of Regulations [CCR] § 4852). An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California per Public Resources Code Section 5020.1(j) or if it meets the criteria for listing on the CRHR per California Code of Regulations at Title 14 California Code of Regulations Section 4850.

The most recent amendments to the CEQA Guidelines direct lead agencies to first evaluate an archaeological site to determine whether it meets the criteria for listing in the CRHR. If an archaeological site is a historic resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered as stated in Public Resources Code Sections 21084.1 and 21083.2(l). If an archaeological site is considered not to be a historical resource but meets the definition of a "unique archaeological resource" as defined in Public Resources Code Section 21083.2, and it would be treated in accordance with the provisions of that section.

With reference to Public Resources Code Section 21083.2, each site found within a project area will be evaluated to determine whether it is a unique archaeological resource. A unique archaeological resource is described as an archaeological artifact, object, or site about which it can be clearly

demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

As used in this report, "non-unique archaeological resource" means an archaeological artifact, object, or site that does not meet the criteria for eligibility for listing on the CRHR, as noted in subdivision (g) of Public Resources Code Section 21083.2. A non-unique archaeological resource requires no further consideration other than simple recording of its components and features. Isolated artifacts are typically considered non-unique archaeological resources. Historic structures that have had their superstructures demolished or removed can be considered historic archaeological sites and are evaluated following the processes used for prehistoric sites. Finally, the California State Office of Historic Preservation (OHP) recognizes an age threshold of 45 years. Cultural resources built less than 45 years ago may qualify for consideration but only under the most extraordinary circumstances.

Title 14, California Code of Regulations, Chapter 3 Section 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

Title 14, California Code of Regulations, Chapter 3 Section 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CRHR (PRC § 5024.1; Title 14 CCR, § 4850 *et seq*.).
2. A resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the Public Resources Code Section 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. 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, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the

criteria for listing on the California Register of Historical Resources (PRC § 5024.1; Title 14 CCR § 4852) 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.
B. Is associated with the lives of persons important in our past.
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
D. Has yielded, or may be likely to yield, information important in prehistory or history.

Typically, archaeological sites exhibiting significant features qualify for the CRHR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CRHR.
- Not included in a local register of historical resources pursuant to Public Resources Code Section 5020.1(k).
- Identified in a historical resources survey per Public Resources Code Section 5024.1(g).

Thresholds of Significance

If a project will have a significant impact on a cultural resource, several steps must be taken to determine whether the cultural resource is a "unique archaeological resource" under CEQA. If analysis and/or testing determine that the resource is a unique archaeological resource and therefore subject to mitigation prior to development, a threshold of significance should be developed. The threshold of significance is a point where the qualities of significance are defined, and the resource is determined to be unique under CEQA. A significant impact is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced to a point that it no longer meets the significance criteria. Should analysis indicate that project development will destroy the unique elements of a resource; CEQA regulations require that the project implement appropriate and feasible mitigation measures. The preferred form of mitigation is to preserve the resource in place, in an undisturbed state. However, as that is not always possible or feasible, appropriate mitigation measures may include, but are not limited to:

1. Planning construction to avoid the resource.
2. Deeding conservation easements.
3. Capping the site prior to construction.

If a resource is determined to be a "non-unique archaeological resource," no further consideration of the resource by the lead agency is necessary.

Local Regulations

City of Riverside General Plan (2025)

Objectives and Policies for Historic Preservation in Riverside

Objective HP-1 To use historic preservation principles as an equal component in the planning and development process.

Policies

Policy HP-1.1 The City shall promote the preservation of cultural resources to ensure that citizens of Riverside have the opportunity to understand and appreciate the City's unique heritage.

Policy HP-1.2 The City shall assume its direct responsibility for historic preservation by protecting and maintaining its publicly owned cultural resources. Such resources may include, but are not limited to, buildings, monuments, landscapes, and right-of-way improvements, such as retaining walls, granite curbs, entry monuments, light standards, street trees, and the scoring, dimensions, and patterns of sidewalks, driveways, curbs, and gutters.

Policy HP-1.3 The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.

Policy HP-1.4 The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.

Policy HP-1.5 The City shall promote neighborhood/city identity and the role of historic preservation in community enhancement.

Policy HP-1.6 The City shall use historic preservation as a tool for "smart growth" and mixed-use development.

Policy HP-1.7 The City shall ensure consistency between this Historic Preservation Element and all other General Plan elements, including subsequent updates of the General Plan.

Objective HP-2 To continue an active program to identify, interpret, and designate the City's cultural resources.

Policies

Policy HP-2.1 The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources.

Policy HP-2.2 The City shall continually update its identification and designation of cultural resources that are eligible for listing in local, state, and national registers based upon the 50-year age guideline for potential historic designation eligibility.

Policy HP-2.3 The City shall provide information to citizens, and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as the treatment, preservation, and repatriation of such resources.

Objective HP-3 To promote the City's Cultural resources as a means to enhance the City's identity as an important center of Southern California history.

Policies

Policy HP-3.1 The City shall conduct educational programs to promote an understanding of the significance of the City's cultural resources, the criteria for historic designation, historic design review processes, building permit requirements, and methods for rehabilitating and preserving historic buildings, sites, and landscapes.

Policy HP-3.2 The Planning Division shall promote an understanding and appreciation of the importance of historic preservation by the City's departments, boards, commissions, and elected officials.

Objective HP-4 To fully integrate the consideration of cultural resources as a major aspect of the City's planning, permitting and development activities.

Policies

Policy HP-4.1 The City shall maintain an up-to-date database of cultural resources and use that database as a primary informational resource for protecting those resources.

Policy HP-4.2 The City shall apply the California State Historical Building Code to ensure that City building code requirements do not compromise the integrity of significant cultural resources, at the property owner's request.

Policy HP-4.3 The City shall work with the appropriate tribe to identify and address, in a culturally appropriate manner, cultural resources and tribal sacred sites through the development review process.

Objective HP-5 To ensure compatibility between new development and existing cultural resources.

Policies

Policy HP-5.1 The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts.

Policy HP-5.2 The City shall use its design and plot plan review processes to encourage the compatibility of street design, public improvements, and utility infrastructure with cultural resources and historic districts.

Objective HP-6 To actively pursue funding for a first-class historic preservation program, including money needed for education materials, studies, surveys, staffing and incentives for preservation by private property owners.

Policies

Policy HP-6.1 The City shall provide financial incentives to promote the restoration, rehabilitation, and adaptive reuse of cultural resources.

Policy HP-6.2 The City shall use financial resources from state, federal and private programs that assist in the identification, designation, and preservation of cultural resources.

Policy HP-6.3 The City shall ensure adequate funds in its budget for the staffing and maintenance of a historic preservation program in compliance with the California State Office of Historic Preservation's Certified Local Government program.

Objective HP-7 To encourage both public and private stewardship of the City's cultural resources.

Policies

Policy HP-7.1 The City shall apply code enforcement, zoning actions, and building safety/construction regulations as tools for helping to protect cultural resources.

Policy HP-7.2 The City shall incorporate preservation as an integral part of its specific plans, general plan, and environmental processes.

Policy HP-7.3 The City shall coordinate historic preservation with other activities within its government structure.

Policy HP-7.4 The City shall promote the preservation of cultural resources controlled by other governmental agencies, including those related to federal, state, county, school district, and other agencies.

Tribal Cultural Resources and Tribal Consultation

Under CEQA, TCRs refer to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to one or more California Native American tribes. To be considered significant under CEQA, these resources must also be included or determined eligible for inclusion in the CRHR or a local register of historical resources or be determined significant pursuant to the criteria set forth in subdivision (c) of Section 5024.1 by the lead agency (PRC § 21074).

Cultural resource assessment reports will often include the results from an NAHC SLF search and outreach to Native American representatives identified as potentially having interest or information on the project area by the NAHC. The primary process for identifying and evaluating potential

impacts to TCRs, however, is through government-to-government consultation between the CEQA lead agency and Native American tribes pursuant to the following California statutes.

California Senate Bill 18

Senate Bill (SB) 18 states that prior to a local (city or county) government's adoption of any General Plan or Specific Plan, or amendment to General and Specific Plans, or a designation of open space land proposed on or after March 1, 2005, the city or county shall conduct consultations with California Native American tribes for the purpose of preserving or mitigating impacts to Cultural Places. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan. According to the Government Code Section 65352.4, "consultation" is defined as:

> *The meaningful and timely process of seeking, discussing, and carefully considering the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party's sovereignty. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance.*

SB 18 requires public notice to be sent to tribes listed on the NAHC's SB 18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Notice must be sent regardless of prior consultation, and it is suggested that local governments send written notice by certified mail with return receipt requested.

California Assembly Bill 52

Assembly Bill (AB) 52 was signed into law on September 25, 2014, and provides that any public or private "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." TCRs include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the CRHR or included in a local register of historical resources." AB 52 formally added the category of "tribal cultural resources" to CEQA and extends the consultation and confidentiality requirements to all projects rather than just projects subject to SB 18 as discussed above.

AB 52 requires a lead agency to notify and offer the opportunity for consultation to a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe has previously requested in writing to be informed by the lead agency of proposed projects in their geographic area. This notification must be sent prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. Tribes must respond to the notice within 45 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the lead agency.

The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. The parties must consult in good faith, and consultation is deemed concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect on a TCR (if such a significant effect exists); or (2) when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed upon during consultation must be recommended for inclusion in the environmental document. AB 52 also identifies mitigation measures that may be considered to avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include:

- Preservation in place.
- Protecting the cultural character and integrity of the resource.
- Protecting the traditional use of the resource.
- Protecting the confidentiality of the resource.
- Permanent conservation easements with culturally appropriate management criteria.

Local, state, and federal government agencies have developed laws and regulations designed to protect significant cultural resources that may be affected by projects regulated, funded, or undertaken by the agency. Federal and state laws that govern the preservation of historic and archaeological resources of national, state, regional, and local significance include the NEPA, the NHPA, and CEQA. In addition, laws specific to work conducted on federal lands include the ARPA, the American Antiquities Act, and the NAGPRA.

The following federal or CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed project. An impact is considered significant if it would affect a resource eligible for listing in the NRHP or the CRHR or if it is identified as a unique archaeological resource.

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Appendix D:
Geology and Soils Supporting Information

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D.1 - Geotechnical Investigation

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GEOTECHNICAL INVESTIGATION

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS

NEC IOWA AVENUE AND PALMYRITA AVENUE

APN 247-170-030 & 039

RIVERSIDE, CALIFORNIA

-Prepared By-

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June 13, 2022

Project No. 644-22043
22-06-081

Dedeaux Properties
100 Wilshire Boulevard, Suite 250
Santa Monica, California 90401

Subject: Geotechnical Investigation

Project: Proposed Industrial/Warehouse Buildings
NEC Iowa Avenue and Palmyrita Avenue
APN 247-170-030 & 039
Riverside, California

Sladden Engineering is pleased to present the results of our geotechnical investigation performed for the proposed new industrial/warehouse buildings to be constructed on the site (APN 247-170-030 & 039) located at the northeast corner of Iowa Avenue and Palmyrita Avenue in the City of Riverside, California. Our services were completed in accordance with our proposal for geotechnical engineering services dated April 7, 2022 and your signed authorization to proceed with the work. The purpose of our investigation was to explore the subsurface conditions at the site in order to provide recommendations for foundation design and site preparation. Evaluation of environmental issues and hazardous wastes was not included within the scope of services provided.

The opinions, recommendations and design criteria presented in this report are based on our field exploration program, laboratory testing and engineering analyses. Based on the results of our investigation, it is our professional opinion that the proposed project should be feasible from a geotechnical perspective provided that the recommendations presented in this report are implemented into design and carried out through construction.

We appreciate the opportunity to provide service to you on this project. If you have any questions regarding this report, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

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GEOTECHNICAL INVESTIGATION
PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE
APN 247-170-030 & 039
RIVERSIDE, CALIFORNIA

June 13, 2022
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INTRODUCTION

This report presents the results of the geotechnical investigation performed by Sladden Engineering (Sladden) for the proposed industrial/warehouse buildings to be constructed on the site (247-170-030 & 039) located on the northeast corner of Iowa Avenue and Palmyrita Avenue in the City of Riverside, California. The site is located at approximately 33.0055 degrees North latitude and 117.3372 degrees West longitude. The approximate location of the site is indicated on the Site Location Map (Figure 1).

Our investigation was conducted in order to evaluate the engineering properties of the subsurface materials, to evaluate their *in-situ* characteristics, and to provide engineering recommendations and design criteria for site preparation, foundation design and the design of various site improvements. This study also includes a review of published and unpublished geotechnical and geological literature regarding seismicity at and near the subject site.

PROJECT DESCRIPTION

Based on the conceptual project plans (HPA, 2022), it is our understanding that the proposed project will consist of constructing two (2) new warehouse buildings on the site. The currently proposed project will consist of demolishing the existing site structure and constructing new warehouse buildings occupying 107,260 square feet (ft^2) (Building 1) and 129,210 ft^2 (Building 2). The project will also include paved parking areas, exterior concrete flatwork, underground utilities, landscape areas and various other improvements. For our analyses, we expect that the proposed buildings will be of reinforced concrete tilt-up construction supported on conventional shallow spread footings and concrete slabs-on-grade.

We anticipate that grading will be limited to minor cuts and fills in order to accomplish the desired pad elevations and provide adequate gradients for site drainage. This does not include the removal and re-compaction of foundation bearing soil within the building envelope. Upon completion of precise grading plans, Sladden should be retained in order to ensure that the recommendations presented within in this report are incorporated into the design of the proposed project.

Structural foundation loads were not available at the time of this report. Based on our experience with relatively light gauge steel frame and wood-frame structures, we expect that isolated column loads will be less than 50 kips and continuous wall loads will be less than 5.0 kips per linear foot. If these assumed loads vary significantly from the actual loads, we should be consulted to verify the applicability of the recommendations provided.

SCOPE OF SERVICES

The purpose of our investigation was to determine specific engineering characteristics of the surface and near surface soil in order to develop foundation design criteria and recommendations for site preparation. Exploration of the site was achieved by drilling five (5) exploratory boreholes to depths between approximately 5 and 51 feet below the existing ground surface (bgs). Specifically, our site characterization consisted of the following tasks:

- Site reconnaissance to assess the existing surface conditions on and adjacent to the site.
- The excavation of five (5) exploratory boreholes to depths between approximately 5 and 51 feet bgs in order to characterize the subsurface soil conditions. Representative samples of the soil were classified in the field and retained for laboratory testing and engineering analyses.
- The performance of laboratory testing on selected samples to evaluate their engineering characteristics.
- The review of geologic literature with respect to potential geologic hazards.
- The performance of engineering analyses to develop recommendations for foundation design and site preparation.
- The preparation of this report summarizing our work at the site.

SITE CONDITIONS

The site is located on the northeast corner of Iowa Avenue and Palmyrita Avenue in the City of Riverside, California. The property consists of two (2) parcels that are formally identified by the County of Riverside as APN 247-170-030 & 039. The site occupies approximately 13.6 acres of land. At the time of our investigation the western portion of the site was vacant (APN 247-170-030), and the remainder of the site (APN 247-170-039) was occupied by an existing industrial building and paved parking areas. The subject site is bounded by Iowa Avenue to the west, Palmyrita Avenue to the south, developed industrial properties to the north and east.

The project site is relatively level with minimal surface gradients. According to the USGS 7.5′ San Bernardino South Quadrangle map (2015), the site is at an approximate elevation of 935 feet above mean sea level (MSL).

No ponding water or surface seeps were observed at or near the site during our investigation conducted on April 19, 2022. Site drainage appears to be controlled via sheet flow and surface infiltration.

GEOLOGIC SETTING

The project site is located in the Peninsular Ranges Physiographic Province of California. The Peninsular Ranges are mountainous areas that extend from the western edge of the continental borderland to the Salton Trough and from the Transverse Ranges Physiographic Province in the north to the tip of Baja California in the south. The Peninsular Ranges Physiographic Province is characterized by northwest-trending topographic and structural features. The province is characterized by elongated, northwest-southeast trending mountain ranges and valleys and is truncated at its northern margin by the east-west trending Transverse Ranges. Mountainous areas of the Peninsular Ranges Physiographic Province generally consist of Igneous, metasedimentary and metavolcanic rocks. However, plutonic rocks of the Southern California Batholith are the dominant basement rock exposed (Jahns, 1954).

The site has been mapped by Dibblee (2003) to be immediately underlain by older surficial alluvial fan deposits (Qoa). The geologic setting for the site and site vicinity is illustrated on the Regional Geologic Map, Figure 2.

SUBSURFACE CONDITIONS

The subsurface conditions at the site were investigated by drilling five (5) exploratory boreholes on the site. The approximate locations of the boreholes are illustrated on the Exploration Location Plan (Figure 3). The boreholes were advanced using a truck-mounted Mobile B-61 drill-rig equipped with 8-inch outside diameter hollow stem augers. A representative of Sladden was on-site to log the materials encountered and retrieve samples for laboratory testing and engineering analyses.

During our field investigation, disturbed soil was encountered to a maximum depth of approximately three (3) to four (4) feet below the (existing) ground surface (bgs) within our bore locations. Underlying the disturbed soil, native alluvial materials were encountered to the maximum explored depth of approximately 51 feet bgs. The native soil consists primarily of clayey sand (SC), silty sand (SM) and sandy clay (CL). Sampler penetration resistance as measured by field blow counts indicates that density generally increases with depth.

The final logs represent our interpretation of the contents of the field logs, and the results of the laboratory observations and tests of the field samples. The final logs are included in Appendix A of this report. The stratification lines represent the approximate boundaries between soil types, although the transitions may be gradual and variable across the site.

Groundwater was not encountered during our field investigation. Based on our experience in the project vicinity, and our review of groundwater elevations in the project vicinity (CDWR, 2022), it is our opinion that groundwater should not be a factor during construction of the proposed project.

SEISMICITY AND FAULTING

The southwestern United States is a tectonically active and structurally complex region, dominated by northwest trending dextral faults. The faults of the region are often part of complex fault systems, composed of numerous subparallel faults that splay or step from the main fault traces. Strong seismic shaking could be produced by any of these faults during the design life of the proposed project.

We consider the most significant geologic hazard to the project to be the potential for moderate to strong seismic shaking that is likely to occur during the design life of the project. The proposed project is located in the highly seismic Southern California region within the influence of several fault systems that are considered to be active or potentially active. An active fault is defined by the State of California as a "sufficiently active and well defined fault" that has exhibited surface displacement within the Holocene epoch (about the last 11,000 years). A potentially active fault is defined by the State as a fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago).

Table 1 lists the closest known potentially active faults that was generated in part using the EQFAULT computer program (Blake, 2000), as modified using the fault parameters from The Revised 2002 California Probabilistic Seismic Hazard Maps (Cao et al, 2003), Southern Earthquake Data Center (SCEDC, 2022), Building Seismic Safety Council (BSSC, 2014) and the Quaternary Fault and Fold Database of the United States (USGS, 2022a). This table does not identify the probability of reactivation or the on-site effects from earthquakes occurring on any of the other faults in the region.

TABLE 1
CLOSEST KNOWN ACTIVE FAULTS

Fault Name	Distance (Km)	Maximum Event
San Jacinto – San Bernardino	5.9	7.3*
San Jacinto – San Jacinto Valley	9.3	7.0
San Andreas – San Bernardino	21.0	7.5
San Andreas – Southern	21.0	7.5
Cucamonga	21.8	6.9
Chino – Central Avenue (Elsinore)	28.8	6.7
North Frontal Fault Zone (West)	29.9	7.2
Cleghorn	30.3	6.5
Elsinore – Glen Ivy	30.9	6.8
Whittier	32.4	6.8

*BSSC (2014)

SITE SPECIFIC GROUND MOTION PARAMETERS

Sladden has reviewed the 2019 California Building Code (CBC) and ASCE7-16 and developed site specific ground motion parameters for the subject site. The project Seismic Design Maps and site-specific ground motion parameters are summarized in the following table and included within Appendix C. The project Structural Engineer should verify that all design parameters provided are applicable for the subject project.

TABLE 2
GROUND MOTION PARAMETERS

Latitude / Longitude	34.0055/-117.3372
Risk Category	II
Site Class	D
Code Reference Documents	ASCE 7-16; Chapter 11 & 21

Description	Type	Map Based	Site-Specific
MCE_R Ground Motion (0.2 second period)	S_S	1.591	---
MCE_R Ground Motion (1.0 second period)	S_1	0.618	---
Site-Modified Spectral Acceleration Value	S_{MS}	1.591	**1.991**
Site-Modified Spectral Acceleration Value	S_{M1}	null	**1.705**
Numeric Seismic Design Value at 0.2 second SA	S_{DS}	1	**1.328**
Numeric Seismic Design Value at 1.0 second SA	S_{D1}	null	**1.136**
Site Amplification Factor at 0.2 second	F_a	1	**1.0**
Site Amplification Factor at 1.0 second	F_v	null	**2.5**
Site Peak Ground Acceleration	PGA_M	0.742	**0.769**

GEOLOGIC HAZARDS

The subject site is located in an active seismic zone and will likely experience strong seismic shaking during the design life of the proposed project. In general, the intensity of ground shaking will depend on several factors including: the distance to the earthquake focus, the earthquake magnitude, the response characteristics of the underlying materials, and the quality and type of construction. Geologic hazards and their relationship to the site are discussed below.

I. Surface Rupture. Surface rupture is expected to occur along preexisting, known active fault traces. However, surface rupture could potentially splay or step from known active faults or rupture along unidentified traces. Based on review of Jennings (1994), CGS (2022) and Dibblee (2003), known faults are not mapped on the site. In addition, no signs of active surface faulting were observed during our review of non-stereo digitized photographs of the site and site vicinity (Google, 2022). Finally, no signs of active surface rupture or secondary seismic effects (lateral spreading, lurching etc.) were identified on-site during our field investigation. Therefore, it is our opinion that risks associated with primary surface ground rupture should be considered "low".

II. Ground Shaking. The site has been subjected to past ground shaking by faults that traverse through the region. Strong seismic shaking from nearby active faults is expected to produce strong seismic shaking during the design life of the proposed project. A site-specific approach determined the peak ground acceleration (PGAm) at the site to be 0.769g.

III. Liquefaction/Seismic Settlement. Liquefaction is the process in which loose, saturated granular soil loses strength as a result of cyclic loading. The strength loss is a result of a decrease in granular sand volume and a positive increase in pore pressures. Generally, liquefaction can occur if all of the following conditions apply; liquefaction-susceptible soil, groundwater within a depth of 50 feet or less, and strong seismic shaking. The site is located within a "low" liquefaction potential zone (RCMMC, 2022). Based on the relatively dense nature of the underlying native earth materials and the depth to groundwater (CDWR, 2022), risks associated with liquefaction are considered "low".

IV. Tsunamis and Seiches. Because the site is situated at an elevated inland location and is not immediately adjacent to any impounded bodies of water, risk associated with tsunamis and seiches is considered "negligible".

V. Slope Failure, Landslides, Rock Falls. The site is situated on relatively level ground and is not immediately adjacent to any slopes or hillsides that could be potentially susceptible to slope instability. No signs of slope instability in the form of landslides, rock falls, earthflows or slumps were observed at or near the subject site during our investigation. As such, risks associated with slope instability should be considered "negligible".

VI. Expansive Soil. Expansion Index testing of select samples was performed in order to evaluate the expansive potential of the materials underlying the site. Based the results of our laboratory testing (EI = 20), the materials underlying the site are considered to have a "very low" expansion potential.

VII. Flooding and Erosion. No signs of flooding or erosion were observed during our field investigation. However, risks associated with flooding and erosion should be evaluated and mitigated by the project design Civil Engineer.

CONCLUSIONS

Based on the results of our investigation, it is our professional opinion that the project should be feasible from a geotechnical perspective provided that the recommendations provided in this report are incorporated into design and carried out through construction. The main geotechnical concerns in the design and construction of the proposed project are the presence of the existing structures and improvements, and potentially compressible surface and near surface soil.

Because of the somewhat soft and compressible condition of the near surface native soil, remedial grading including overexcavation and recompaction is recommended for the proposed building and foundation areas. We recommend that remedial grading within the proposed building areas include over-excavation and/or re-compaction of the artificial fill and primary foundation bearing soil. Specific recommendations for site preparation are presented in the Earthwork and Grading section of this report.

Groundwater was encountered during our field investigation. Based on the conditions encountered during our field investigation, groundwater should not be a factor in design or during the construction of the proposed project.

Caving did occur to varying degrees within each of our exploratory bores and the surface soil may be susceptible to caving within deeper excavations. All excavations should be constructed in accordance with the normal CalOSHA excavation criteria. Based on our observations of the materials encountered, we anticipate that the subsoil will conform to that described by CalOSHA as Type C. Soil conditions should be verified in the field by a "Competent person" employed by the Contractor.

The following recommendations present more detailed design criteria that have been developed based on our field investigation and laboratory testing.

EARTHWORK AND GRADING

All earthwork including excavation, backfill and preparation of the surface soil, should be performed in accordance with the geotechnical recommendations presented in this report and portions of the local regulatory requirements, as applicable. All earth work should be performed under the observation and testing of a qualified soil engineer. The following geotechnical engineering recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analyses.

a. Site Clearing. Areas to be graded should be cleared of the existing structures, surface improvements, debris and underground utilities. All areas scheduled to receive fill should be cleared of surface improvements, artificial fill and any unsuitable matter. The unsuitable materials should be removed off-site. Existing fill soil should be removed in its entirety and replaced as engineering fill. Voids left by obstructions should be properly backfilled in accordance with the compaction recommendations of this report.

b. Preparation of Building Areas. In order to achieve a firm and uniform bearing conditions, we recommend over-excavation and re-compaction throughout the building areas. All artificial fill soil and low density near surface native soil should be removed to competent native soil expected at depths of approximately 3 to 4 feet below the existing ground surface or to a minimum depth of 3 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally a minimum of five feet beyond the building foundations. The soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 90 percent relative compaction prior to fill placement.

c. Compaction. Soil to be used as engineered fill should be free of organic material, debris, and other unsuitable materila, and should not contain irreducible matter greater than three inches in maximum dimension. All fill materials should be placed in thin lifts, not exceeding six inches in a loose condition at near optimum moisture content. If import fill is required, the material should be of a low to non-expansive nature and should meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 inches

The subgrade soil and all fill material should be compacted with acceptable compaction equipment to at least 90 percent relative compaction. The bottom of the exposed subgrade should be observed by a representative of Sladden Engineering prior to fill placement. Compaction testing should be performed in order to verify proper compaction. Table 3 provides a summary of the excavation and compaction recommendations.

TABLE 3
SUMMARY OF RECOMMENDATIONS

*Remedial Grading	Over-excavation and re-compaction within the building envelope and extending laterally at least 5 feet beyond the building limits and to a minimum depth of 5 feet below existing grade or 3 feet below the bottom of the footings, whichever is deeper
Native / Import Engineered Fill	Place in thin lifts not exceeding 6 inches in a loose condition, compact to a minimum of 90 percent relative compaction.
Asphalt Concrete Sections	Compact the top 12 inches to at least 95 percent compaction within 2 percent of optimum moisture content.

*Actual depth may vary and should be determined by a representative of Sladden Engineering in the field during construction.

d. Shrinkage and Subsidence. Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill should be anticipated. We estimate that this shrinkage could vary from 10 to 15 percent. Subsidence of the surfaces that are scarified and compacted should be between 1 and 2 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.

FOUNDATIONS: CONVENTIONAL SHALLOW SPREAD FOOTINGS

The proposed structures may be supported upon conventional shallow spread footings. Exterior footings should extend at least 18 inches beneath lowest adjacent grade and interior footings should extend at least 12 inches below slab subgrade. Isolated square or rectangular footings at least 2 feet square and continuous footings at least 12 inches wide may be designed using allowable bearing pressures of 2200 and 2000 pounds per square foot, respectively. The allowable bearing pressure may be increased by approximately 250 psf for each additional 1 foot of width and 250 psf for each additional 6 inches of depth, if desired. The maximum allowable bearing pressure should be limited to 3000 psf unless confirmed by Sladden Engineering subsequent to performing specific settlement calculations. The allowable bearing pressures are for dead and frequently applied live loads and may be increased by 1/3 to resist wind, seismic or other transient loading. All footings should be reinforced in accordance with the project structural engineer's recommendations.

Based on the allowable bearing pressures recommended above the total static settlement of conventional shallow spread footings is anticipated to be less than one inch, provided that foundation preparation conforms to the recommendations provided in this report. Differential static settlement is anticipated to be approximately one-half the total static settlement for similarly loaded footings spaced approximately 40 feet apart.

Resistance to lateral loads may be provided by a combination of friction acting at the base of the slabs or foundations and passive earth pressure along the sides of the foundations. A coefficient of friction of 0.40 between soil and concrete may be used for dead load forces only. A passive earth pressure of 250 pounds per square foot, per foot of depth, may be used for the sides of footings that are placed against properly compacted native soil. Passive earth pressure should be ignored within the upper 1 foot except where confined.

All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths prior to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture-softened soils and/or any construction debris should be removed prior to concrete placement. Excavated soil generated from footing and/or utility trenches should not be stockpiled within the building envelope or in areas of exterior concrete flatwork.

SLABS-ON-GRADE

In order to reduce the risk of heave, cracking and settlement, concrete slabs-on-grade must be placed on properly compacted fill as outlined in the previous sections. The slab subgrades should remain near optimum moisture content and should not be permitted to dry prior to concrete placement. All slab subgrades should be firm and unyielding. Disturbed soil should be removed and then replaced and compacted to a minimum of 90 percent relative compaction.

Slab thickness and reinforcement should be determined by the structural engineer. All slab reinforcement should be supported on concrete chairs to ensure that reinforcement is placed at slab mid-height. Considering the expected uses, we recommend a minimum slab thickness of 6.0 inches within warehouse areas and 4.0 inches within office areas along with minimum reinforcement of #4 bars at 24 inches on center in both directions in warehouse areas and #3 bars at 24 inches on center in both directions for office areas.

Slabs with moisture sensitive surfaces should be underlain with a moisture vapor barrier consisting of a polyvinyl chloride membrane such as 10-mil Visqueen. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete and to limit damage. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface can not be achieved by grading, consideration should be given to placing a thin leveling course of sand across the pad surface prior to placement of the membrane.

RETAINING WALLS

Minor retaining walls may be required to accomplish the proposed construction. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 40 pcf for level native backfill soil acting in a triangular pressure distribution with drained backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 60 pcf for native backfill soil with level drained backfill conditions.

We recommend that a back drain system be provided behind all retaining walls or that the walls be designed for full hydrostatic pressures. The back drains should consist of a heavy walled, four inch diameter, perforated pipe sloped to drain to outlets by gravity, and of clean, free-draining, three-quarter to one and one-half inch crushed rock or gravel. The crushed rock or gravel should extend to within one foot of the surface. The upper one foot should be backfilled with compacted, fine-grained soil to exclude surface water. A Mirafi 140N (or equivalent) filter cloth should be placed between the on-site native material and the drain rock.

ON-SITE PAVEMENT DESIGN

Asphalt concrete pavements should be designed in accordance with the Caltrans Highway Design Manual based on R-Value and Traffic Index. The R-Value of the near surface soil was determined to be 42 at equilibrium. For preliminary pavement design, Traffic Indices (TI) of 6.0 and 7.5 were used for the light duty and heavy duty pavements, respectively. We assumed Asphalt Concrete (AC) over Class II Aggregate Base (AB). The preliminary flexible pavement layer thickness is as follows:

TABLE 4
RECOMMENDED ASPHALT PAVEMENT SECTION LAYER THICKNESS

Pavement Material	Recommended Thickness	
	TI = 6.0	TI = 7.5
Asphalt Concrete Surface Course	3.0 inches	4.0 inches
Class II Aggregate Base Course	6.0 inches	8.0 inches
Compacted Subgrade Soil	12.0 inches	12.0 inches

Asphalt concrete and Class II aggregate base should conform to the latest edition of the Standard Specifications for Public Works Construction ("Greenbook") or CalTrans Standard Specifications. The aggregate base course should be compacted to at least 95 percent of the maximum dry density as determined by ASTM Method D 1557.

We expect that concrete pavement may also be considered for on-site pavement areas. A concrete pavement section of 6.0 inches of Portland Cement Concrete (PCC) on compacted native soil should be adequate for the on-site concrete pavement limited to automobile and light truck traffic. In areas where heavy truck traffic is expected, the concrete pavement section should be increased to 7.0 inches of PCC on compact native soil. Properly spaced and constructed control joints including expansion joints and contraction joints should be incorporated into concrete pavement design to accommodate temperature and shrinkage related cracking. Joint spacing and joint patterns should be established based upon Portland Cement Association (PCA) and American Concrete Institute (ACI) guidelines.

CORROSION SERIES

The soluble sulfate concentrations of the surface soil were determined to be 20 parts per million (ppm). The soil is considered to have a "negligible" corrosion potential with respect to concrete. The use of Type V cement and special sulfate resistant concrete should not be required. The soluble sulfate content of the surface soil should be reevaluated after grading and appropriate concrete mix designs should be established based upon post-grading test results.

The pH level of the surface soil was determined to be 10.2 Based on soluble chloride concentration testing (30 ppm), the soil is considered to have a "low" corrosion potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 2,100 ohm-cm, which suggests that the site soil is considered to have a "moderate" corrosion potential with respect to ferrous metal installations. A corrosion expert should be consulted regarding appropriate corrosion protection measures for corrosion sensitive installations.

UTILITY TRENCH BACKFILL

All utility trench backfill should be compacted to a minimum of 90 percent relative compaction. Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve near optimum moisture content and then mechanically compacted in place to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should test the backfill to verify adequate compaction.

EXTERIOR CONCRETE FLATWORK

To minimize cracking of concrete flatwork, the subgrade soil below concrete flatwork areas should first be compacted to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil.

DRAINAGE

All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. In order to reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading.

LIMITATIONS

The findings and recommendations presented in this report are based upon an interpolation of the soil conditions between the exploratory boring locations and extrapolation of these conditions throughout the proposed building area. Should conditions encountered during grading appear different than those indicated in this report, this office should be notified.

The use of this report by other parties or for other projects is not authorized. The recommendations of this report are contingent upon monitoring of the grading operation by a representative of Sladden Engineering. All recommendations are considered to be tentative pending our review of the grading operation and additional testing, if indicated. If others are employed to perform any soil testing, this office should be notified prior to such testing in order to coordinate any required site visits by our representative and to assure indemnification of Sladden Engineering.

We recommend that a pre-job conference be held on the site prior to the initiation of site grading. The purpose of this meeting will be to assure a complete understanding of the recommendations presented in this report as they apply to the actual grading performed.

ADDITIONAL SERVICES

Once completed, final project plans and specifications should be reviewed by use prior to construction to confirm that the full intent of the recommendations presented herein have been applied to design and construction. Following review of plans and specifications, observation should be performed by the Soil Engineer during construction to document that foundation elements are founded on/or penetrate into the recommended soil, and that suitable backfill soil is placed upon competent materials and properly compacted at the recommended moisture content.

Tests and observations should be performed during grading by the Soil Engineer or his representative in order to verify that the grading is being performed in accordance with the project specifications. Field density testing shall be performed in accordance with acceptable ASTM test methods. The minimum acceptable degree of compaction should be 90 percent for subgrade soils and 95 percent for Class II aggregate base as obtained by the ASTM Test Method D1557. Where testing indicates insufficient density, additional compactive effort shall be applied until retesting indicates satisfactory compaction.

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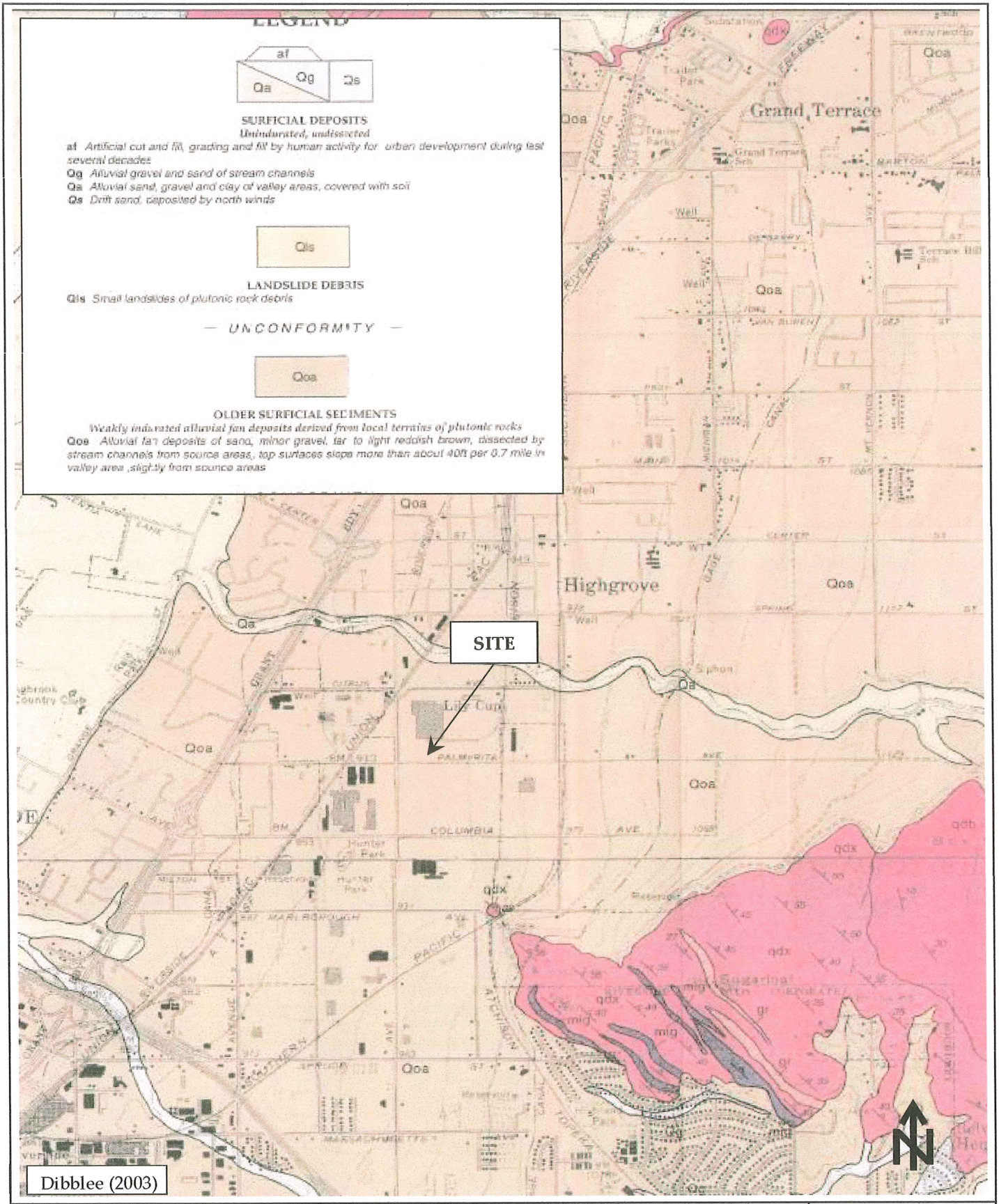
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FIGURES

SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PLAN



Sladden Engineering	SITE LOCATION MAP	FIGURE 1
	Project Number: 644-22043	
	Report Number: 22-06-081	
	Date: June 13, 2022	



Sladden Engineering	REGIONAL GEOLOGIC MAP	FIGURE 2
	Project Number: 644-22043	
	Report Number: 22-06-081	
	Date: June 13, 2022	

Sladden Engineering

EXPLORATION LOCATION PLAN

Project Number:	644-22043
Report Number:	22-06-081
Date:	June 13, 2022

FIGURE

3

APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

For our field investigation five (5) exploratory bores were excavated on April 19, 2022 utilizing a truck mounted hollow stem auger rig (Mobile B-61). Continuous logs of the materials encountered were made by a representative of Sladden Engineering. Materials encountered in the boreholes were classified in accordance with the Unified Soil Classification System which is presented in this appendix.

Representative undisturbed samples were obtained within our bores by driving a thin-walled steel penetration sampler (California split spoon sampler) or a Standard Penetration Test (SPT) sampler with a 140 pound automatic-trip hammer dropping approximately 30 inches (ASTM D1586). The number of blows required to drive the samplers 18 inches was recorded in 6-inch increments and blowcounts are indicated on the boring logs.

The California samplers are 3.0 inches in diameter, carrying brass sample rings having inner diameters of 2.5 inches. The standard penetration samplers are 2.0 inches in diameter with an inner diameter of 1.5 inches. Undisturbed samples were removed from the sampler and placed in moisture sealed containers in order to preserve the natural soil moisture content. Bulk samples were obtained from the excavation spoils and samples were then transported to our laboratory for further observations and testing.

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.25 inches AC
	6 10 15	1	20	44.2	9.5	127.8	2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
	13 13 17			50.1	8.4	129.0	4		Sandy Clay (CL); dark grayish brown, dry, very stiff, low plasticity with gravel (Qoa).
	8 9 8			28.3	5.0		10		Clayey Sand (SC); light yellowish brown, dry, medium dense, fine- to coarse-grained with gravel; micaceous (Qoa).
	24 50-4			27.1	9.1	117.6	16		Clayey Sand (SC); light yellowish brown, dry, very dense, fine- to coarse-grained (Qoa).
	12 17 19			15.6	4.4		20		Silty Sand (SM); yellowish brown, dry, dense, fine- to coarse-grained (Qoa).
	21 50-6			43.0.	10.5	126.6	26		Silty Sand (SM): yellowish brown, dry to slightly moist, very dense, fine- to coarse-grained (Qoa).
	20 27 035			31.3	7.2		30		Clayey Sand (SC); light yellowish brown, dry, very dense, fine- to coarse-grained Qoa).
	27 50-6			27.6	6.7	123.1	36		Clayey Sand (SC); yellowish brown, dry, very dense, fine- to coarse-grained (Qoa).
	14 25 47			41.6	9.4		40		Clayey Sand (SC); yellowish brown, dry to slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
	14 16 26			42.7	11.8	122.8	46		Clayey Sand (SC); yellowish brown,slightly moist, medium dense, fine- to coarse-grained, micaceous (Qoa).
	18 38 46			35.7	7.5		50		Clayey Sand (SC); yellowish brown,slightly moist, very dense, fine- to coarse-grained (Qoa).

Completion Notes:
Terminated at 51.5 Feet bgs .
No Bedrock Encountered.
No Groundwater or Seepage Encountered.

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	1
Report No:	22-06-081		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.50 inches AC
							2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
							4		
	7 12 13			49.2	12.3		6		Clayey Sand (SC); dark yellowish brown, slightly moist, medium dense, fine- to coarse-grained, micaceous (Qoa).
							8		
	19 50-6			49.6	9.7	127.3	10		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
							12		
							14		
	20 33 50			21.7	6.9		16		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
							18		
	12 26 50			21.6	7.0	122.7	20		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
							22		
							24		Terminated at ~21.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	2
Report No:	22-06-081		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.25 inches AC/4.00 inches Base Material
							2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
	14 24 45			37.0	10.5	124.4	4 6 8		Clayey Sand (SC); light yellowish brown, slightly moist, dense, fine- to coarse-grained with gravel, micaceous (Qoa).
	3 4 5			6.6	2.4		10 12 14		Sand (SW); yellowish browen, dry, loose, fine- to coarse-grained with gravel (Qoa).
	12 28 44			38.1	9.3	126.7	16 18		Clayey Sand (SC); light yellowish brown, slightly moist, dense, fine- to coarse-grained with gravel, micaceous (Qoa).
	50-6			20.9	7.2		20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50		Clayey Sand (SC); light yellowish brown, slightly moist, very dense, fine- to coarse-grained with gravel, micaceous (Qoa). Terminated at ~20.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	3
Report No:	22-06-081		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-4/P-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		Silty Sand (SM) to Clayey Sand (SC); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
							2		
							4		
	15 24 28			60.4	13.8		6		Sandy Silt (ML); yellowish brown, moist, hard, low plasticity (Qoa).
							8		
	14 19 30			48.6	10.9	128.4	10		Clayey Sand (SC); yellowish brown, slightly moist, dense, fine- to coarse-grained, micaceous (Qoa).
							12		
							14		Terminated at 11.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	4
Report No:	22-06-081		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	P-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM) to Clayey Sand (SC); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
							4		Clayey Sand (SC); yellowish brown, slightly moist, dense, fine- to coarse-grained, micaceous (Qoa).
							6		Terminated at ~5.00 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							8		
							10		
							12		
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	5
Report No:	22-06-081		

APPENDIX B

LABORATORY TESTING

APPENDIX B

LABORATORY TESTING

Representative bulk and relatively undisturbed soil samples were obtained in the field and returned to our laboratory for additional observations and testing. Laboratory testing was generally performed in two phases. The first phase consisted of testing in order to determine the compaction of the existing natural soil and the general engineering classifications of the soils underlying the site. This testing was performed in order to estimate the engineering characteristics of the soil and to serve as a basis for selecting samples for the second phase of testing. The second phase consisted of soil mechanics testing. This testing including consolidation, shear strength and expansion testing was performed in order to provide a means of developing specific design recommendations based on the mechanical properties of the soil.

CLASSIFICATION AND COMPACTION TESTING

Unit Weight and Moisture Content Determinations: Each undisturbed sample was weighed and measured in order to determine its unit weight. A small portion of each sample was then subjected to testing in order to determine its moisture content. This was used in order to determine the dry density of the soil in its natural condition. The results of this testing are shown on the Bore Logs.

Maximum Density-Optimum Moisture Determinations: Representative soil types were selected for maximum density determinations. This testing was performed in accordance with the ASTM Standard D1557, Test Method A. The results of testing are presented graphically in this appendix. The maximum densities are compared to the field densities of the soil in order to determine the existing relative compaction to the soil.

Classification Testing: Soil samples were selected for classification testing. This testing consists of mechanical grain size analyses. This provides information for developing classifications for the soil in accordance with the Unified Soil Classification System which is presented in the preceding appendix. This classification system categorizes the soil into groups having similar engineering characteristics. The results of this testing is very useful in detecting variations in the soils and in selecting samples for further testing.

SOIL MECHANIC'S TESTING

Expansion Testing: One (1) bulk sample was selected for Expansion testing. Expansion testing was performed in accordance with the UBC Standard 18-2. This testing consists of remolding 4-inch diameter by 1-inch thick test specimens to a moisture content and dry density corresponding to approximately 50 percent saturation. The samples are subjected to a surcharge of 144 pounds per square foot and allowed to reach equilibrium. At that point the specimens are inundated with distilled water. The linear expansion is then measured until complete.

Direct Shear Testing: One (1) sample was selected for Direct Shear testing. This test measures the shear strength of the soil under various normal pressures and is used to develop parameters for foundation design and lateral design. Tests were performed using a recompacted test specimen that was saturated prior to tests. Tests were performed using a strain controlled test apparatus with normal pressures ranging from 800 to 2300 pounds per square foot.

Consolidation Testing: Two (2) relatively undisturbed samples were selected for consolidation testing. For this test, a one-inch thick test specimen was subjected to vertical loads varying from 575 psf to 11520 psf applied progressively. The consolidation at each load increment was recorded prior to placement of each subsequent load. The specimens were saturated at 575 psf or 720 psf load increment.

Corrosion Series Testing: The soluble sulfate concentrations of the surface soil were determined in accordance with California Test Method Number (CA) 417. The pH and Minimum Resistivity were determined in accordance with CA 643. The soluble chloride concentrations were determined in accordance with CA 422.

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Maximum Density/Optimum Moisture

ASTM D698/D1557

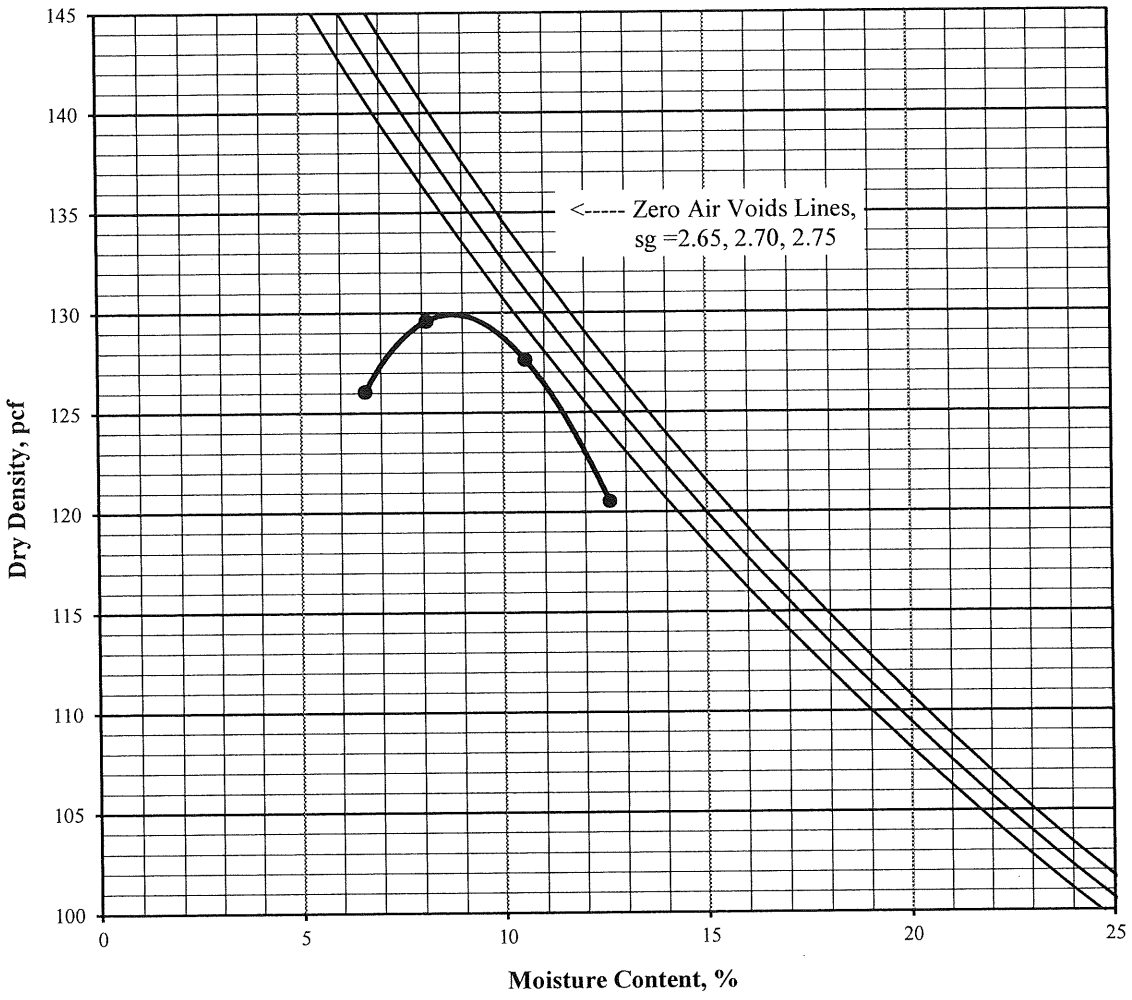
June 8, 2022

Project Number: 644-22043
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample Location: BH-1 Bulk 1 @ 0-5'
Description: Brown Silty Sand (SM)

ASTM D-1557 A
Rammer Type: Machine

Maximum Density: 130.5 pcf
Optimum Moisture: 9.5%
Corrected for Oversize (ASTM D4718)

Sieve Size	% Retained
3/4"	
3/8"	
#4	5.2



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Expansion Index

ASTM D 4829

June 8, 2022

Job Number: 644-22043
Job Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-1 Bulk 1 @ 0-5'
Soil Description: Brown Silty Sand (SM)

Wt of Soil + Ring:	591.9
Weight of Ring:	191.0
Wt of Wet Soil:	400.9
Percent Moisture:	7.3%
Sample Height, in	0.95
Wet Density, pcf:	128.3
Dry Denstiy, pcf:	119.6

% Saturation:	48.2

Expansion **Rack # 2**

Date/Time	6/6/2022	4:05 PM
Initial Reading	0.0000	
Final Reading	0.0203	

Expansion Index **20**

(Final - Initial) x 1000

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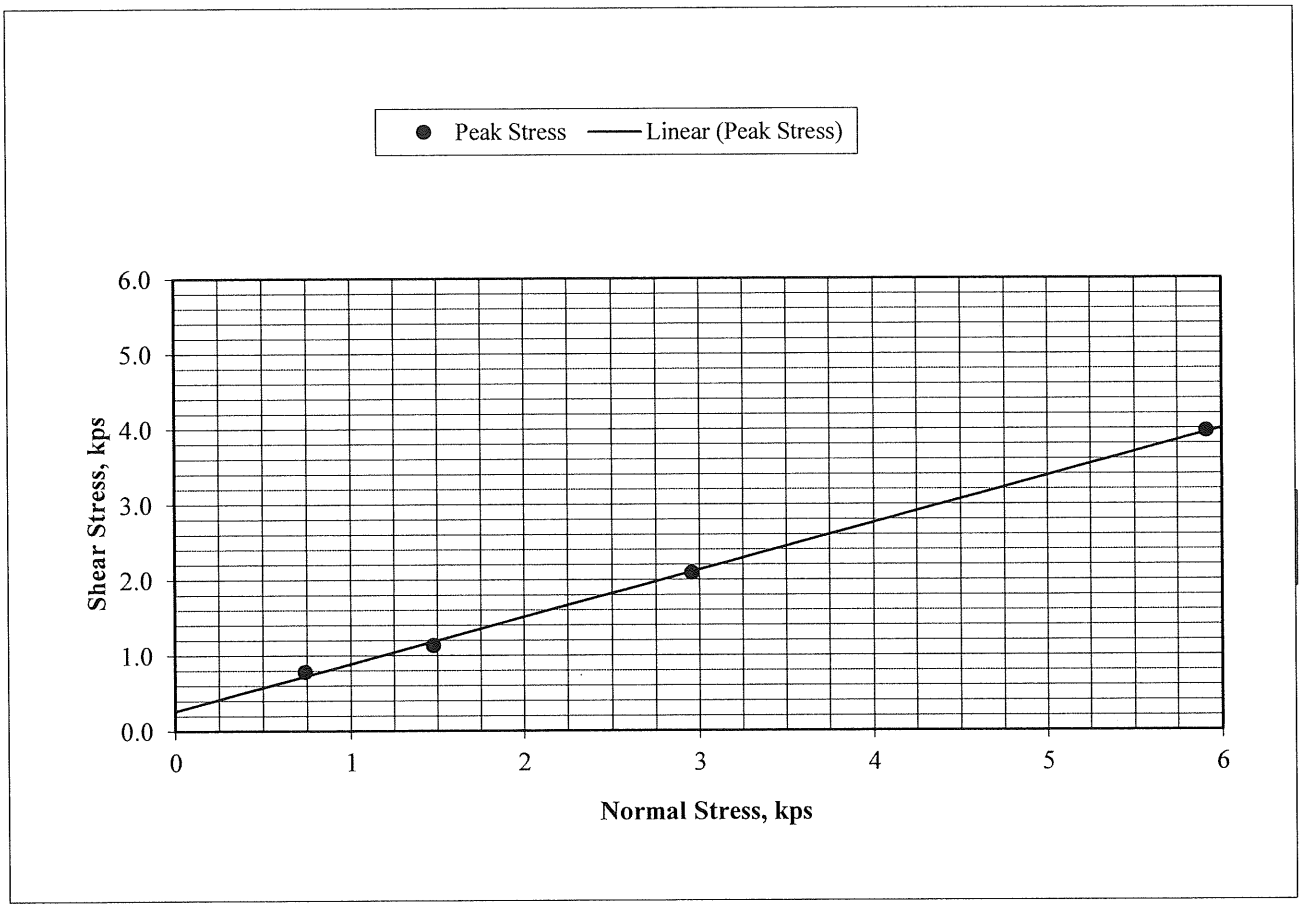
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Direct Shear ASTM D 3080-04
(modified for unconsolidated condition)

Job Number: 644-22043
Job Name 1151 Palmyrita Avenue
Lab ID No. LN6-22196
Sample ID BH-1 Bulk 1 @ 0-5'
Classification Brown Silty Sand (SM)
Sample Type Remolded @ 90% of Maximum Density

June 8, 2022
Initial Dry Density: 116.7 pcf
Initial Mosture Content: 9.5 %
Peak Friction Angle (Ø): 32°
Cohesion (c): 270 psf

Test Results	1	2	3	4	Average
Moisture Content, %	15.4	15.4	15.4	15.4	15.4
Saturation, %	93.7	93.7	93.7	93.7	93.7
Normal Stress, kps	0.739	1.479	2.958	5.916	
Peak Stress, kps	0.785	1.134	2.093	3.968	



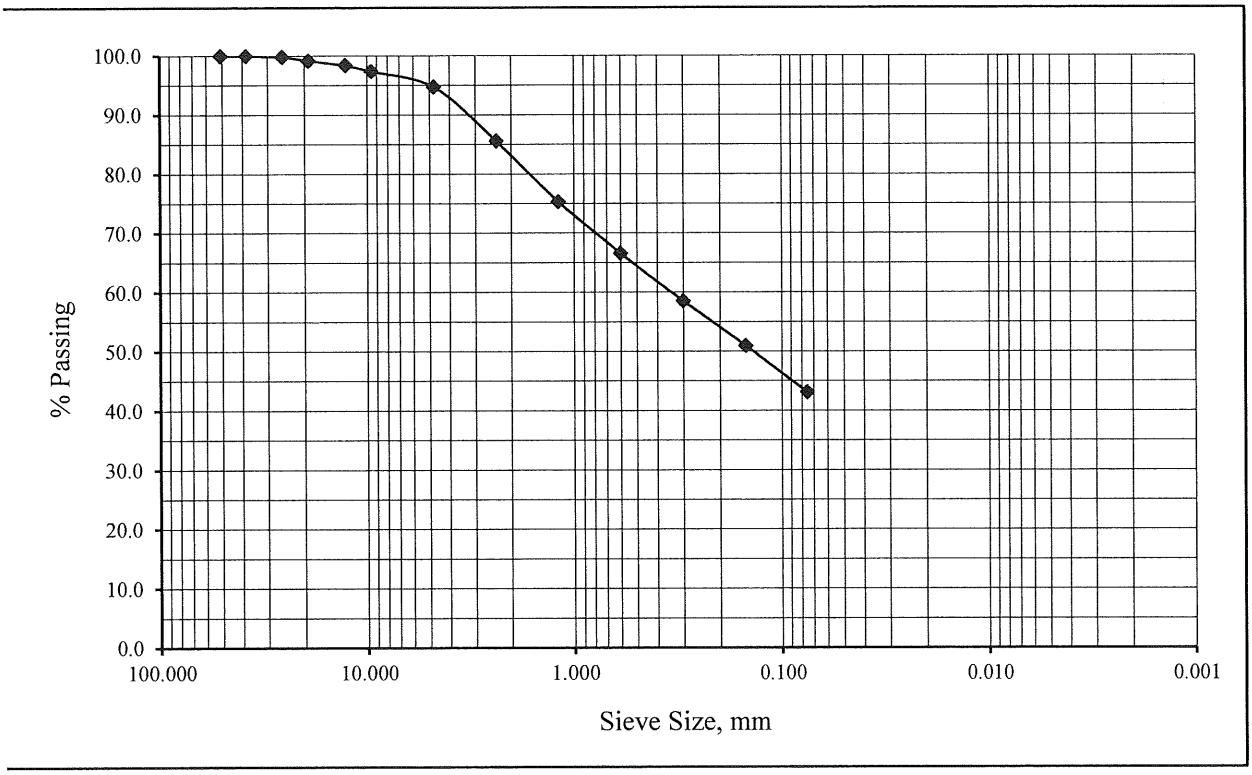
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Gradation

ASTM C117 & C136

Project Number: 644-22043 June 8, 2022
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-1 Bulk 1 @ 0-5' Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	99.8
3/4"	19.1	99.2
1/2"	12.7	98.4
3/8"	9.53	97.4
#4	4.75	94.8
#8	2.36	85.6
#16	1.18	75.3
#30	0.60	66.6
#50	0.30	58.5
#100	0.15	51.0
#200	0.075	43.1



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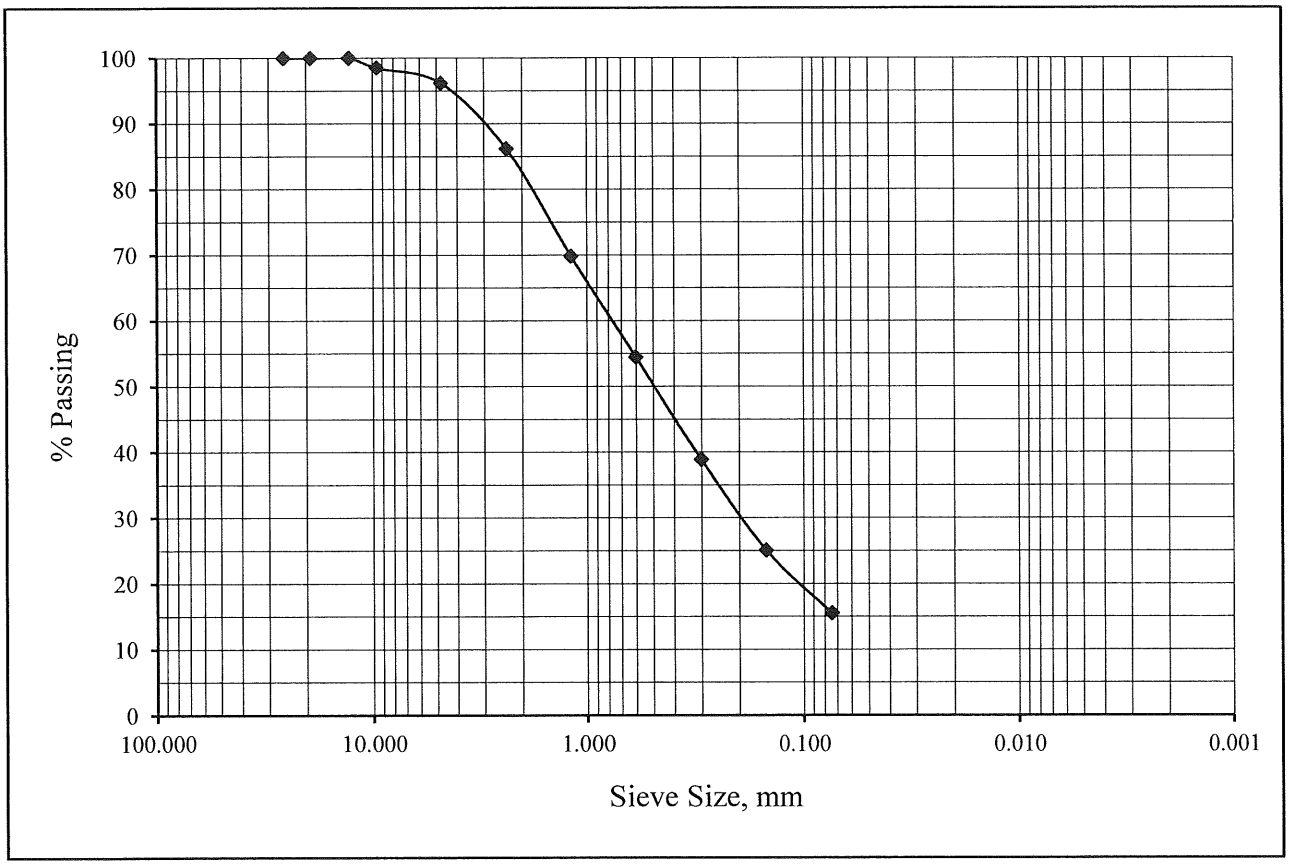
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863

Gradation

ASTM C117 & C136

Project Number: 644-22043 June 8, 2022
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-1 S-5 @ 20' Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	98.5
#4	4.75	96.2
#8	2.36	86.2
#16	1.18	69.8
#30	0.60	54.5
#50	0.30	38.9
#100	0.15	25.1
#200	0.074	15.6



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Gradation

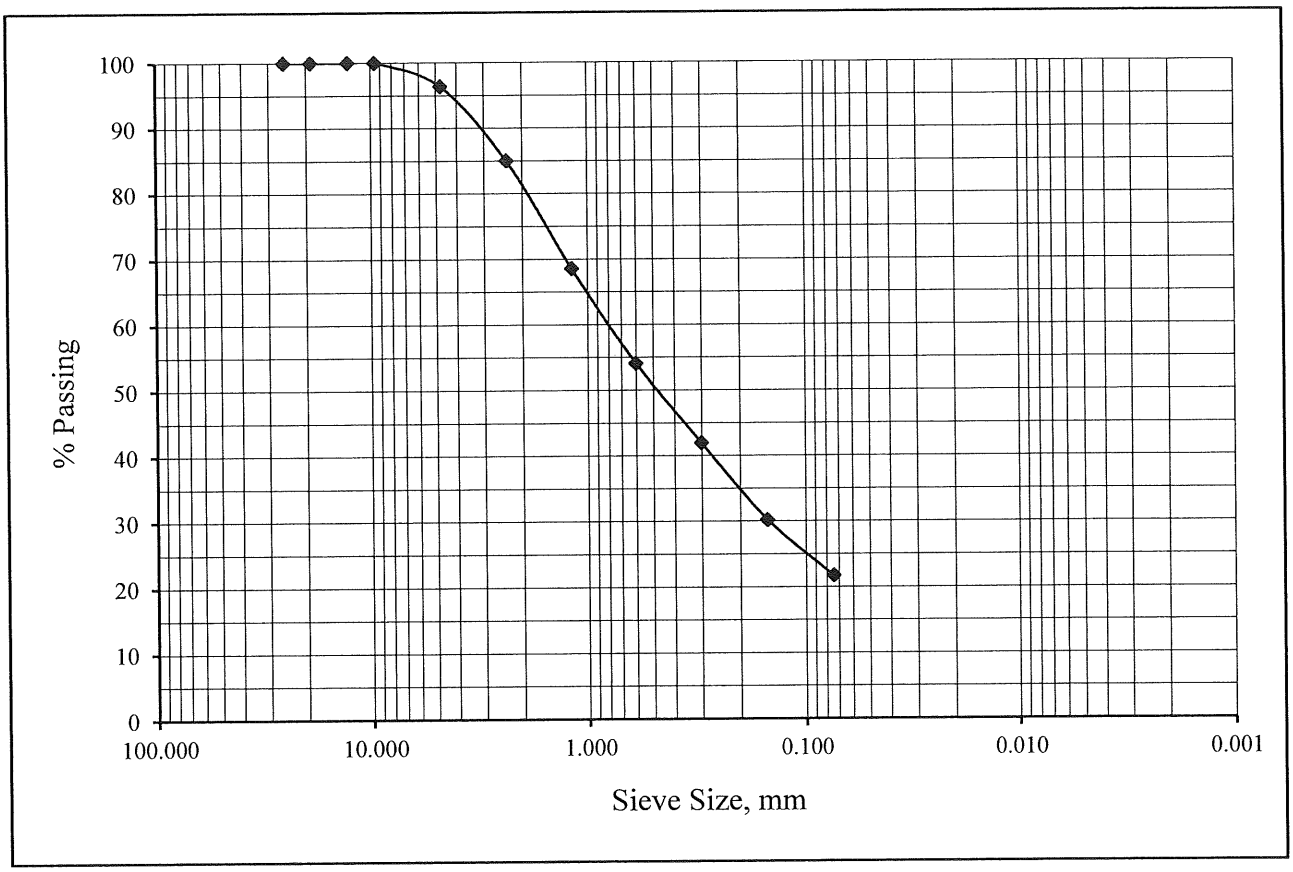
ASTM C117 & C136

Project Number: 644-22043
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-2 S-3 @ 15'

June 8, 2022

Soil Classification: SC

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	96.4
#8	2.36	85.0
#16	1.18	68.6
#30	0.60	54.1
#50	0.30	42.0
#100	0.15	30.2
#200	0.074	21.7



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Gradation

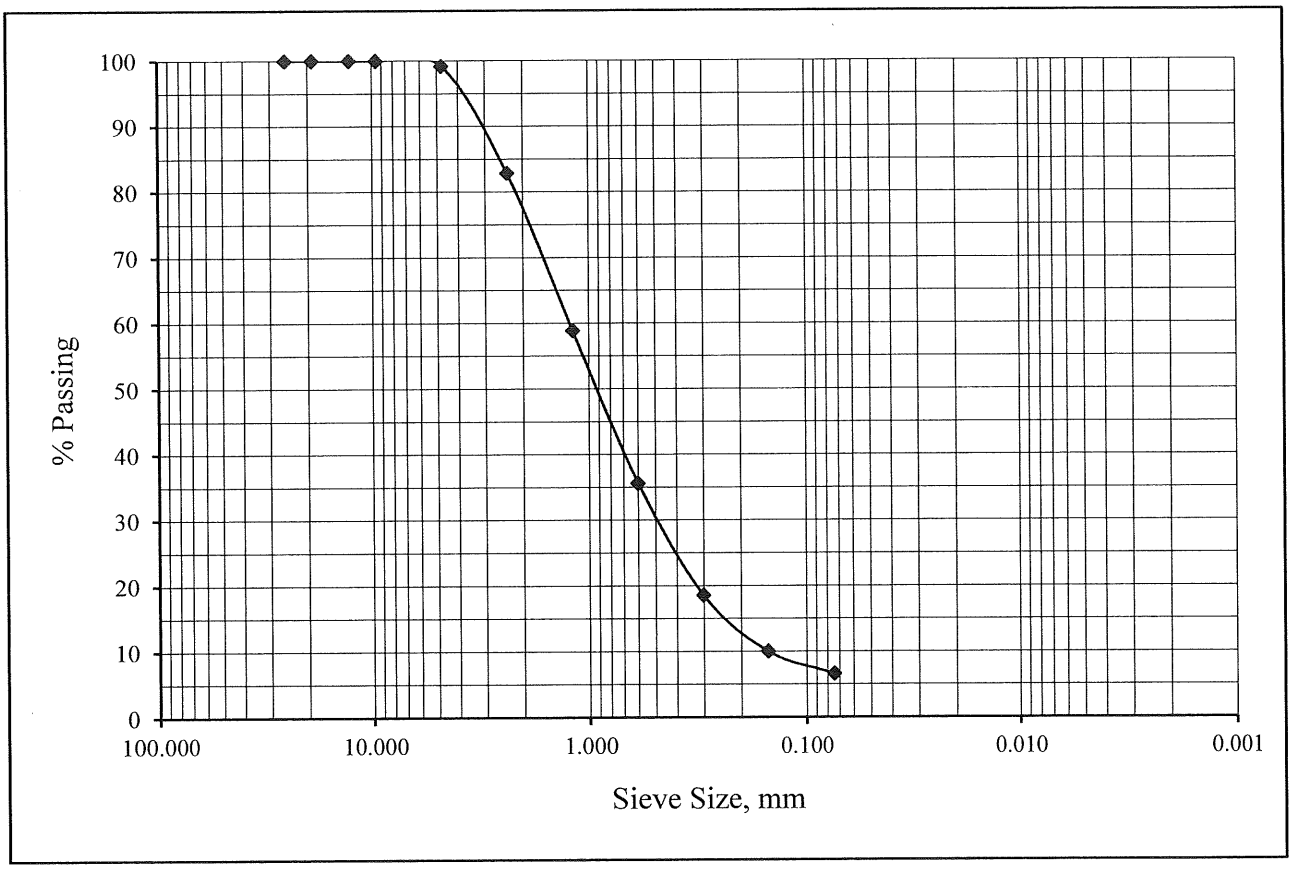
ASTM C117 & C136

Project Number: 644-22043
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-3 S-2 @ 10'

June 8, 2022

Soil Classification: SW-SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	99.2
#8	2.36	82.9
#16	1.18	58.9
#30	0.60	35.6
#50	0.30	18.6
#100	0.15	10.0
#200	0.074	6.6



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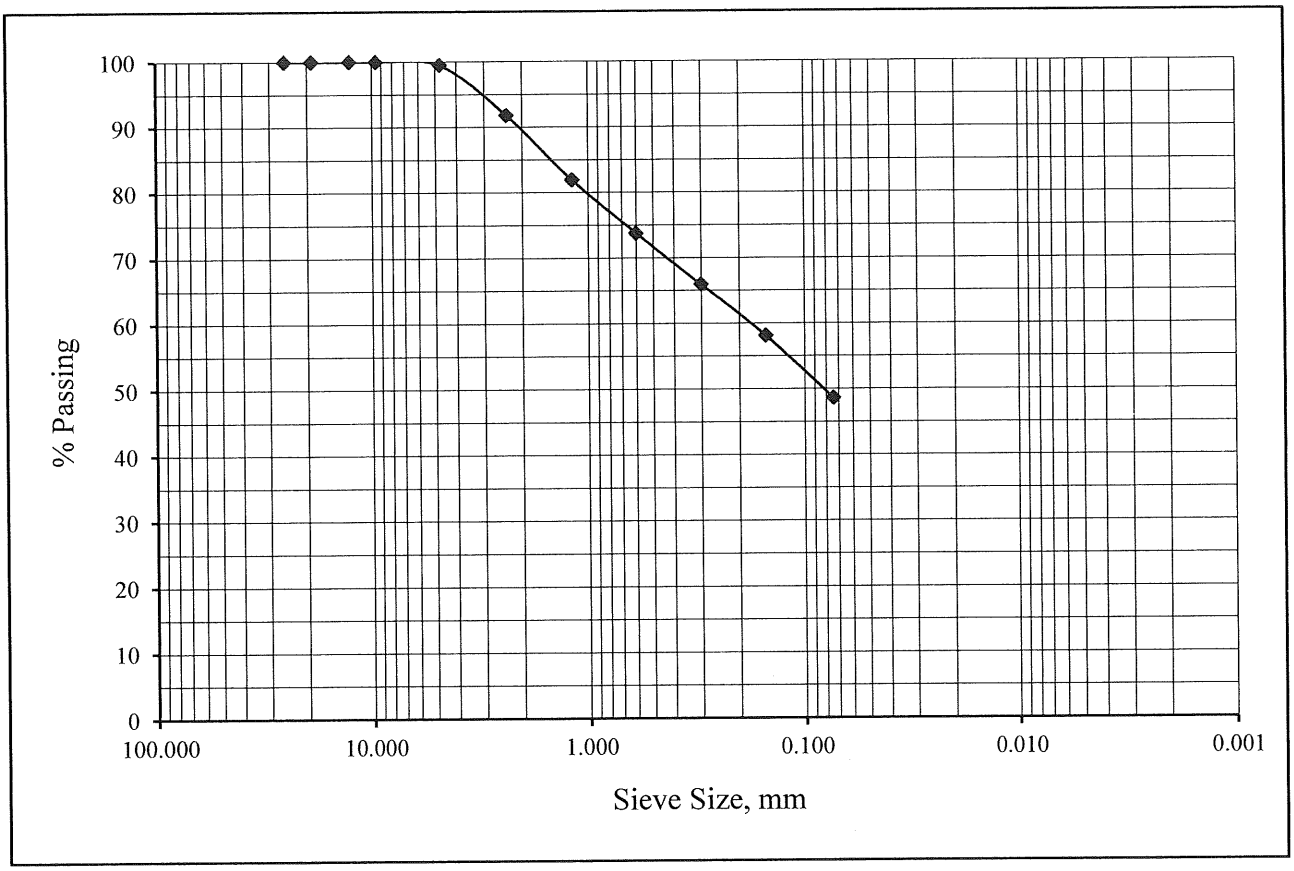
ASTM C117 & C136

Project Number: 644-22043
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-4 R-2 @ 10'

June 8, 2022

Soil Classification: SC

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	99.5
#8	2.36	91.8
#16	1.18	82.0
#30	0.60	73.8
#50	0.30	66.0
#100	0.15	58.1
#200	0.074	48.6



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One Dimensional Consolidation

ASTM D2435 & D5333

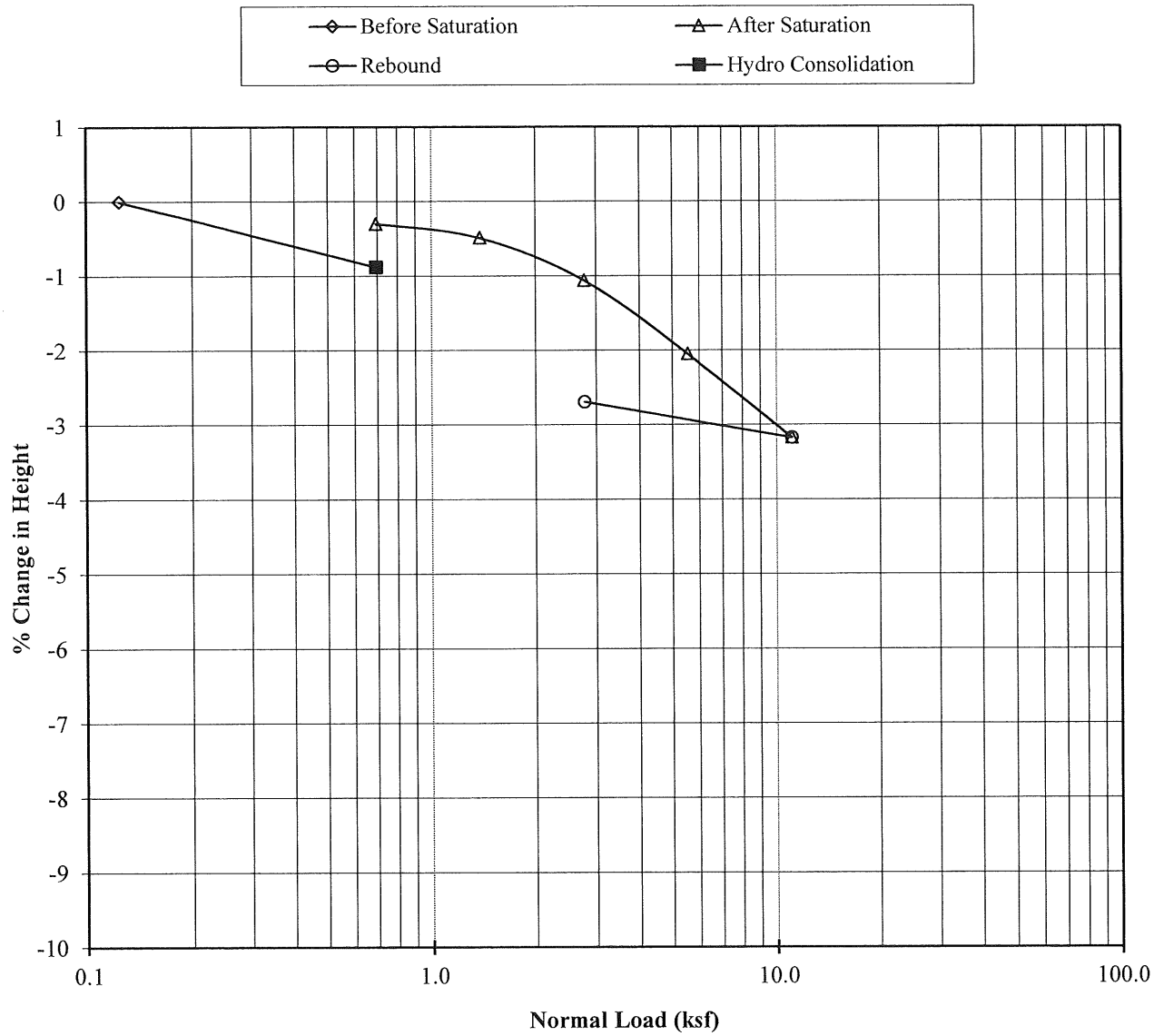
Job Number: 644-22043
Job Name: 1151 Palmyrita Avenue

June 8, 2022

Lab ID Number: LN6-22196
Sample ID: BH-1 R-2 @ 5'
Soil Description: Red Brown Sandy Clay (CL)

Initial Dry Density, pcf:	127.3
Initial Moisture, %:	8.4
Initial Void Ratio:	0.310
Specific Gravity:	2.67

% Change in Height vs Normal Presssure Diagram



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One Dimensional Consolidation

ASTM D2435 & D5333

Job Number: 644-22043
Job Name: 1151 Palmyrita Avenue

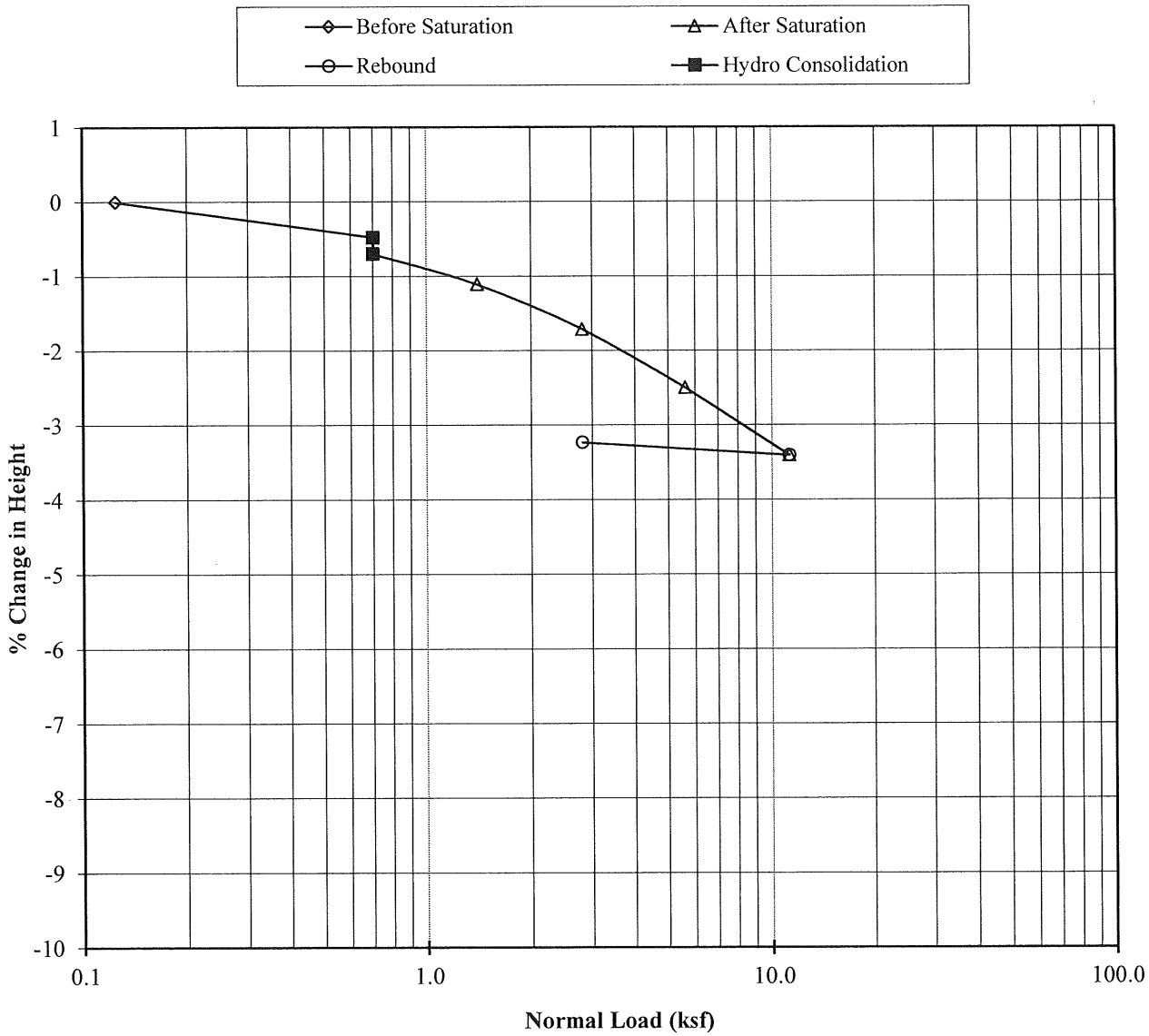
June 8, 2022

Lab ID Number: LN6-22196
Sample ID: BH-4 R-2 @ 10'
Soil Description: Red Brown Clayey Sand (SC)

Initial Dry Density, pcf:	123.3
Initial Moisture, %:	10.9
Initial Void Ratio:	0.352
Specific Gravity:	2.67

Hydrocollapse: 0.2% @ 0.702 ksf

% Change in Height vs Normal Presssure Diagram



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RESISTANCE '*R*' VALUE AND EXPANSION PRESSURE

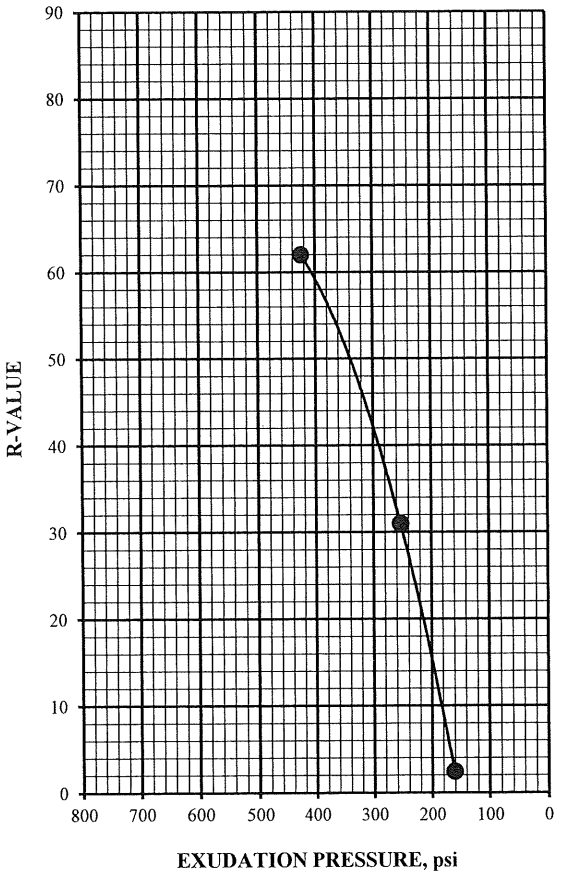
CTM 301

June 8, 2022

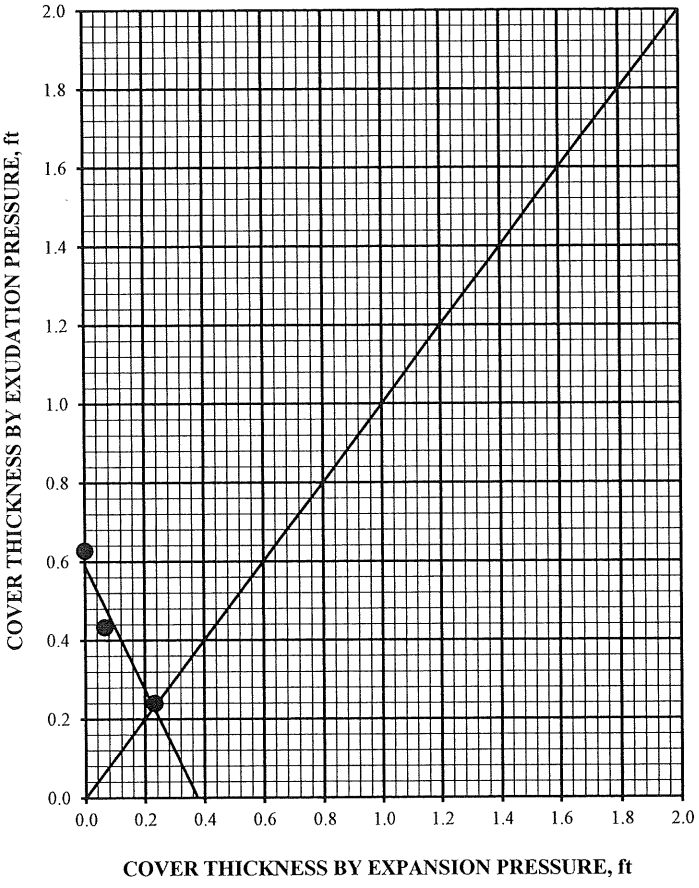
Project Number: 644-22043
Project Name: 1151 Palmyrita Avenue
Lab ID Number: LN6-22196
Sample ID: BH-1 Bulk 1 @ 0-5'
Sample Description: Brown Silty Sand (SM)
Specified Traffic Index: 5.0

Dry Density @ 300 psi Exudation Pressure: 123.9-pcf
%Moisture @ 300 psi Exudation Pressure: 11.1%
R-Value - Exudation Pressure: 42
R-Value - Expansion Pressure: 63
R-Value @ Equilibrium: 42

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



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6782 Stanton Ave., Suite A, Buena Park, CA 90621 (714) 523-0952 Fax (714) 523-1369
45090 Golf Center Pkwy, Suite F, Indio CA 92201 (760) 863-0713 Fax (760) 863-0847
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863

Date: June 8, 2022

Account No.: 644-22043

Customer: Dedeaux Properties

Location: APNs 247-170-030 & 039, 1151 Palmyrita Avenue, Riverside

Analytical Report

Corrosion Series

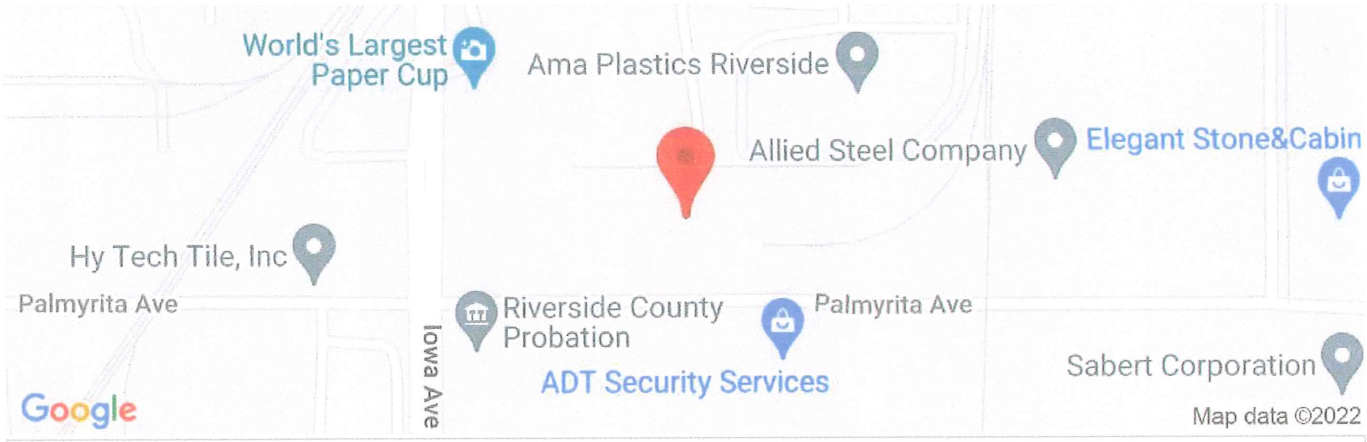
	pH per CA 643	Soluble Sulfates per CA 417 ppm	Soluble Chloride per CA 422 ppm	Min. Resistivity per CA 643 ohm-cm
BH-1 @ 0-5'	10.2	20	30	2100

APPENDIX C

SEISMIC DESIGN MAP AND REPORT
SITE SPECIFIC GROUND MOTION PARAMETERS

NEC Iowa Avenue and Palmyrita Avenue, Riverside

Latitude, Longitude: 34.0055, -117.3372



Date	6/13/2022, 12:49:50 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.591	MCE_R ground motion. (for 0.2 second period)
S_1	0.618	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.591	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.061	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.675	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.742	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.939	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.09	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.591	Factored deterministic acceleration value. (0.2 second)
S1RT	0.733	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.812	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.618	Factored deterministic acceleration value. (1.0 second)
PGAd	0.675	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.928	Mapped value of the risk coefficient at short periods

Type	Value	Description
C_{R1}	0.904	Mapped value of the risk coefficient at a period of 1 s

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Project: NEC Iowa Avenue and Palmyrita Avenue, Riverside
Project Number: 644-22043
Client: Dedeaux Properties
Site Lat/Long: 34.0055/-117.3372
Controlling Seismic Source: San Jacinto

REFERENCE	NOTATION	VALUE
Site Class	C, D, D default, or E	D measured
Site Class D - Table 11.4-1	F_a	1.0
Site Class D - 21.3(ii)	F_v	2.5
$0.2*(S_{D1}/S_{DS})$	T_0	0.132
S_{D1}/S_{DS}	T_S	0.660
Fundamental Period (12.8.2)	T	Period
Seismic Design Maps or Fig 22-14	T_L	8
Equation 11.4-4 - $2/3*S_{M1}$	S_{D1}	0.7004*
Equation 11.4-2 - F_V*S_1	S_{M1}	1.0506*

REFERENCE	NOTATION	VALUE
Fv (Table 11.4-2)[Used for General Spectrum]	F_v	1.7
Design Maps	S_s	1.591
Design Maps	S_1	0.618
Equation 11.4-1 - F_A*S_S	S_{MS}	1.591*
Equation 11.4-3 - $2/3*S_{MS}$	S_{DS}	1.061*
Design Maps	PGA	0.675
Table 11.8-1	F_{PGA}	1.1
Equation 11.8-1 - $F_{PGA}*PGA$	PGA_M	0.743*
Section 21.5.3	80% of PGA_M	0.594
Design Maps	C_{RS}	0.928
Design Maps	C_{R1}	0.904

RISK COEFFICIENT

Cr - At Perods <=0.2, Cr=C_{RS}	C_{RS}	0.928
Cr - At Periods >=1.0, Cr=C_{R1}	C_{R1}	0.904

Cr - At Periods between 0.2 and 1.0 use trendline formula to complete

Period	Cr
0.200	0.928
0.300	0.925
0.400	0.922
0.500	0.919
0.600	0.916
0.680	0.914
1.000	0.904

* **Code based design value.** See accompanying data for Site Specific Design values.

Mapped values from https://seismicmaps.org/

Sladden Engineering

PROBABILISTIC SPECTRA[1]
2% in 50 year Exceedence

Project No: 644-22043

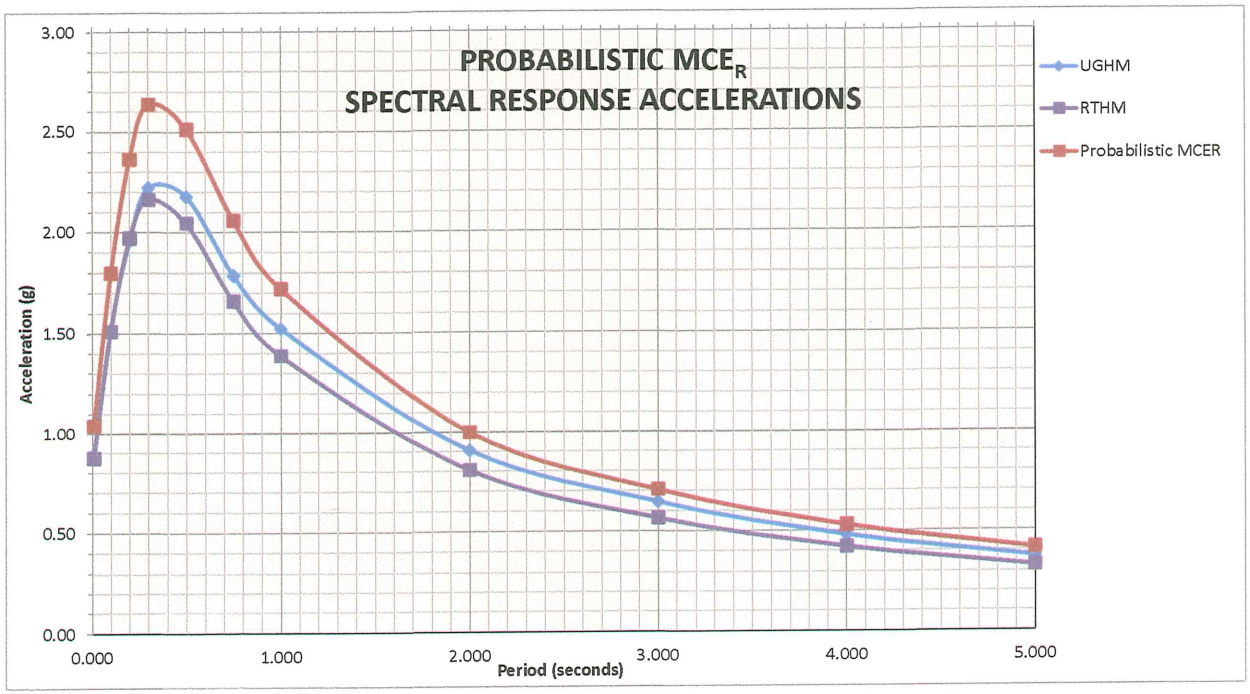
Period	UGHM	RTHM	Max Directional Scale Factor[2]	Probabilistic MCE
0.010	0.893	0.874	1.19	1.040
0.100	1.521	1.510	1.19	1.797
0.200	1.955	1.969	1.20	2.363
0.300	2.219	2.160	1.22	2.635
0.500	2.175	2.042	1.23	2.512
0.750	1.785	1.657	1.24	2.055
1.000	1.523	1.386	1.24	1.719
2.000	0.906	0.805	1.24	0.998
3.000	0.643	0.563	1.25	0.704
4.000	0.479	0.421	1.25	0.526
5.000	0.373	0.328	1.26	0.413

Probabilistic PGA: 0.893

Is Probabilistic $Sa_{(max)} < 1.2F_a$? NO

[1] Data Sources:
https://earthquake.usgs.gov/hazards/interactive/
https://earthquake.usgs.gov/designmaps/rtgm/

[2] Shahi-Baker RotD100/RotD50 Factors (2014)



Sladden Engineering

DETERMINISTIC SPECTRUM

Largest Amplitudes of Ground Motions Considering All Sources Calculated using Weighted Mean of Attenuation Equations[1]

Controlling Source: San Jacinto

Is Probabilistic $Sa_{(max)}$<1.2Fa? NO

Project No: 644-22043

Period	Deterministic PSa Median + 1.σ for 5% Damping	Max Directional Scale Factor[2]	Deterministic MCE	Section 21.2.2 Scaling Factor Applied
0.010	0.769	1.19	0.915	0.915
0.020	0.773	1.19	0.920	0.920
0.030	0.785	1.19	0.934	0.934
0.050	0.830	1.19	0.987	0.987
0.075	0.988	1.19	1.176	1.176
0.100	1.171	1.19	1.393	1.393
0.150	1.434	1.20	1.720	1.720
0.200	1.609	1.20	1.931	1.931
0.250	1.740	1.21	2.105	2.105
0.300	1.814	1.22	2.213	2.213
0.400	1.846	1.23	2.271	2.271
0.500	1.793	1.23	2.205	2.205
0.750	1.467	1.24	1.819	1.819
1.000	1.238	1.24	1.535	1.535
1.500	0.886	1.24	1.099	1.099
2.000	0.672	1.24	0.833	0.833
3.000	0.455	1.25	0.568	0.568
4.000	0.313	1.25	0.391	0.391
5.000	0.228	1.26	0.288	0.288

Is Determinstic $Sa_{(max)}$<1.5*Fa? NO

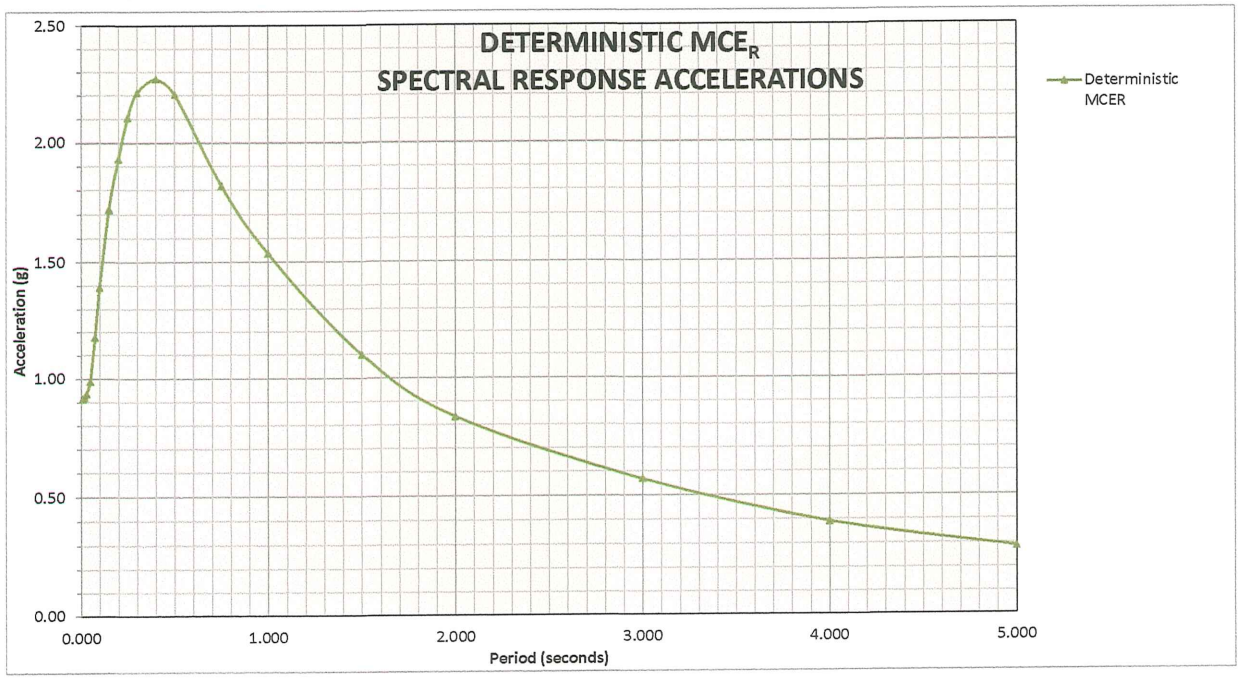
Section 21.2.2 Scaling Factor: N/A

Deterministic PGA: 0.769

Is Deterministic PGA >=F_{PGA}*0.5? YES

[1] NGAWest 2 GMPE worksheet and Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3) - Time Dependent Model

[2] Shahi-Baker RotD100/RotD50 Factors (2014)



Sladden Engineering

SITE SPECIFIC SPECTRA

Period	Probabilistic MCE	Deterministic MCE	Site-Specific MCE	Design Response Spectrum (Sa)
0.010	1.040	0.915	0.915	0.610
0.100	1.797	1.393	1.393	0.929
0.200	2.363	1.931	1.931	1.287
0.300	2.635	2.213	2.213	1.475
0.500	2.512	2.205	2.205	1.470
0.750	2.055	1.819	1.819	1.212
1.000	1.719	1.535	1.535	1.024
2.000	0.998	0.833	0.833	0.555
3.000	0.704	0.568	0.568	0.379
4.000	0.526	0.391	0.391	0.260
5.000	0.413	0.288	0.288	0.192

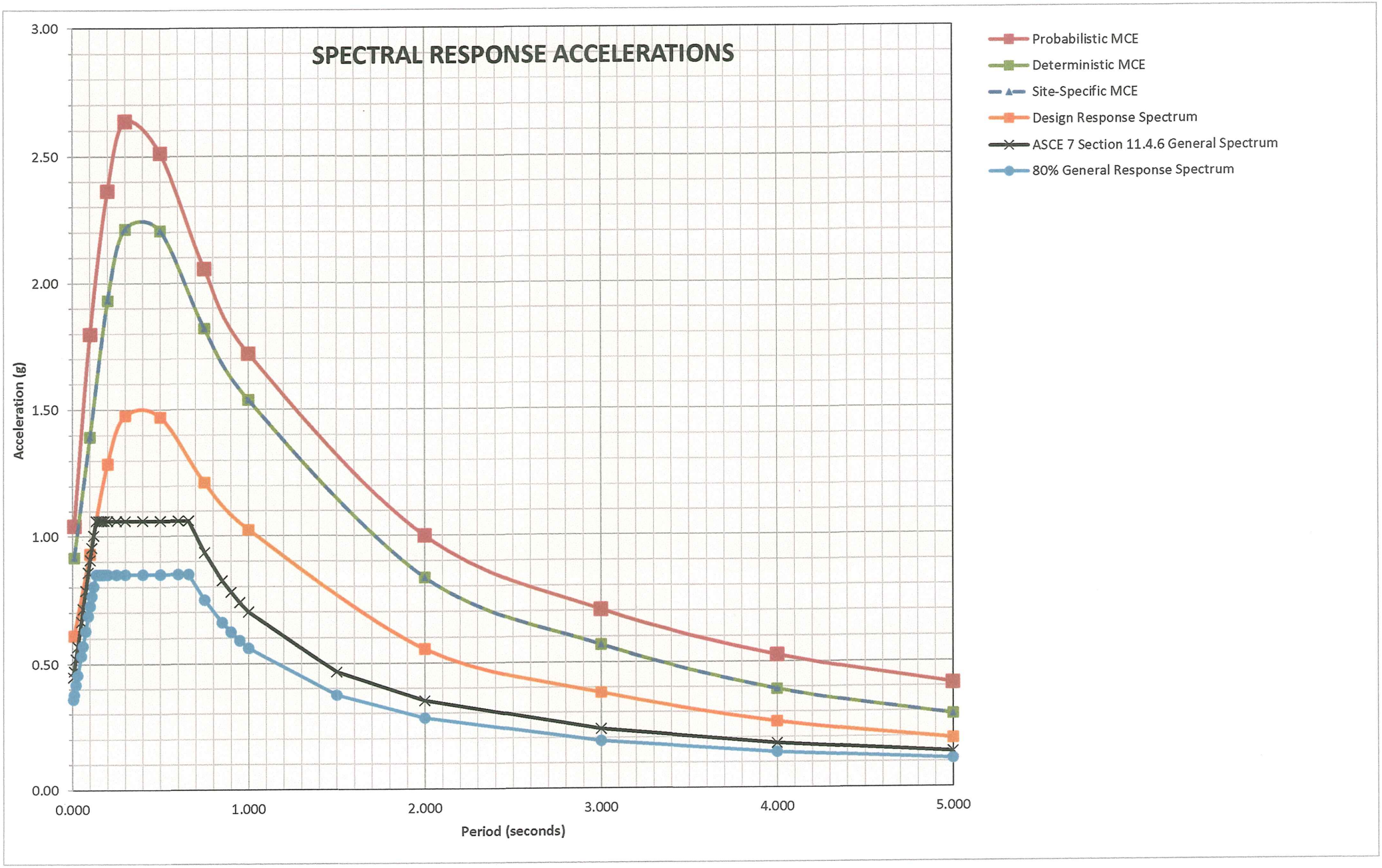
ASCE 7-16: Section 21.4
Site Specific

	Calculated Value	Design Value
SDS:	1.328	1.328
SD1:	1.136	1.136
SMS:	1.991	1.991
SM1:	1.705	1.705
Site Specific PGAm:	0.769	0.769
Site Class:	D measured	

Seismic Design Category - Short* D
Seismic Design Category - 1s* D
* Risk Categories I, II, or III

Period	ASCE 7 SECTION 11.4.6 General Spectrum	80% General Response Spectrum
0.005	0.448	0.359
0.010	0.472	0.378
0.020	0.521	0.417
0.030	0.569	0.455
0.050	0.665	0.532
0.060	0.713	0.571
0.075	0.786	0.629
0.090	0.858	0.686
0.100	0.906	0.725
0.110	0.954	0.763
0.120	1.003	0.802
0.136	1.061	0.849
0.150	1.061	0.849
0.160	1.061	0.849
0.170	1.061	0.849
0.180	1.061	0.849
0.200	1.061	0.849
0.250	1.061	0.849
0.300	1.061	0.849
0.400	1.061	0.849
0.500	1.061	0.849
0.600	1.061	0.849
0.660	1.061	0.849
0.750	0.934	0.747
0.850	0.824	0.659
0.900	0.778	0.623
0.950	0.737	0.590
1.000	0.700	0.560
1.500	0.467	0.374
2.000	0.350	0.280
3.000	0.233	0.187
4.000	0.175	0.140
5.000	0.140	0.112

Project No: 644-22043


SPECTRAL RESPONSE ACCELERATIONS
Probabilistic MCE
Deterministic MCE
Site-Specific MCE
Design Response Spectrum
ASCE 7 Section 11.4.6 General Spectrum
80% General Response Spectrum
Acceleration (g)
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.000
1.000
2.000
3.000
4.000
5.000
Period (seconds)

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D.2 - Paleontological Records Search

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Kenneth L. Finger, Ph.D.
Consulting Paleontologist

18208 Judy St., Castro Valley, CA 94546-2306 510.305.1080 klfpaleo@comcast.net

August 16, 2022

Dana DePietro
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

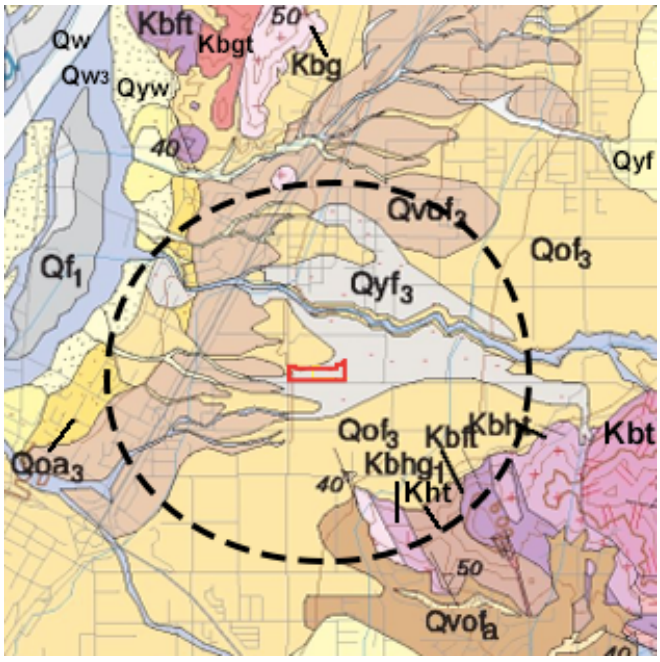
Re: Paleontological Records Search for the Palmyrita Avenue Warehouse Project (4996.0017), City of Riverside, Riverside County

Dear Dr. DePietro:

As per the request of Madelyn Dolan, I have performed a paleontological records search on the University of California Museum of Paleontology (UCMP) database for the Palmyrita Avenue Warehouse Project in Riverside. The applicant is proposing to construct two new warehouses north of Palmyrita Avenue and east of Iowa Avenue on an approximately 11.93-acre site that is a flat, grassy lot next to a Barrette Outdoor Living furniture store. Its Public Land Survey (PLS) location is SE, SE¼, SW¼, Sec. 7, T2S, R4WE, San Bernardino South quadrangle (USGS 7.5-series topographic map).

Geologic Units

According to the part of the geologic map by Morton and Miller (2006) shown on the next page, the project site (red outline at center) is mostly upon young (late Pleistocene to Holocene alluvial fan deposits (Qyf); old alluvial fan deposits (Qof) appear to extend slightly into its northwest corner and would be in the adjacent subsurface. The surrounding one-mile search area (dashed black outline) also includes other Pleistocene alluvial fan deposits (Qoa, Qvof) and the Cretaceous Box Springs Plutonic Complex (Kbxx).



Geologic Units on Map
(suffixes included on map refer to subunits)

Qf	Very young alluvial fan deposits (late Holocene)
Qw	Very young wash deposits (late Holocene)
Qyw	Young wash deposits (Holocene)
Qyf	Young alluvial fan deposits (late Pleist. to Holocene)
Qoa	Old axial-channel deposits (late to middle Pleist.)
Qof	Old alluvial fan deposits (late to middle Pleist.)
Qvof	Very old alluvial fan deposits (early Pleistocene)
Kbxx	Box Springs Plutonic Complex (Cretaceous) (xx = differentiated plutonic lithologies)

UCMP Records Search

The Pleistocene deposits adjacent to the project site probably extend into the site's subsurface at shallow depths where they could be impacted by project-related earth-disturbing construction activities. Also, the project site is close to San Bernardino County. The records search therefore focused on the Pleistocene of Riverside and San Bernardino counties. Riverside County has 18 Pleistocene vertebrate localities, two of which are within 10 miles of the project site: V65248 (Riverside), about three miles southwest of the project site, yielded *Mammuthus* (mammoth); RV8601 (Corona East) is about seven miles southwest of the project side, yielded 10 specimens, including *Microtus californicus* (California vole) and *Neotoma* (woodrat). Riverside County also has 9 plant localities, but all are much farther away in the vicinity of North Palm Springs. San Bernardino County has 48 vertebrate localities, but all are more than 30 miles from the project site. It also has a single plant locality, but it is near Searles Lake more than 100 miles to the north.

Paleontological Assessment and Mitigation Recommendations

A preconstruction paleontological walkover survey of the proposed project site is not recommended because the site's surface is flat and disturbed. Considering Pleistocene deposits will be impacted by project construction activities, and similar deposits about 3 miles away yielded mammoth remains, paleontological monitoring is recommended for all construction activities that impact previously undisturbed subsurface deposits. If significant fossils (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants) are unearthed, all construction-related activities should be diverted at least 15 feet away from the find until a professional paleontologist has assessed its significance and, if deemed appropriate, completed its salvage. The fossil(s) should then be deposited at an appropriate repository where they will be properly curated and accessible for future study. Appropriate recipients would be the Western Science Center in Hemet or the UCMP, which now houses UC Riverside's collection of more than 11,000 vertebrate specimens.

Sincerely,

Ken Finger

Reference Cited

Morton, D.M., and Miller, F.K., 2006, Geologic map of the San Bernardino and Santa Ana and 30' x 60' quadrangles, California. U.S. Geological Survey Open-File Report 2006-1217, Digital preparation by Pamela M. Cossette and Kelly R. Bovard, Version 1.0, 1:100,000. <https://pubs.usgs.gov/of/2006/1217/of2006-1217_pamphlet_nophotos.pdf>

Appendix E:
Hazards and Hazardous Materials Supporting Information

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E.1 - Phase I Environmental Site Assessment Report

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PARTNER
Engineering and Science, Inc.



PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Dedeaux Palmyrita Riverside
1151 Palmyrita Avenue
Riverside, California 92507

Report Date: May 2, 2022
Partner Project No. 22-367348.1



Prepared for:

Dedeaux Properties, LLC.
1299 Ocean Avenue, 9th Floor
Santa Monica, California 90401

PARTNER
Engineering and Science, Inc.

May 2, 2022

Mr. Rishi Thakkar
Dedeaux Properties, LLC.
1299 Ocean Avenue, 9th Floor
Santa Monica, California 90401

Subject: Phase I Environmental Site Assessment
Dedeaux Palmyrita Riverside
1151 Palmyrita Avenue
Riverside, California 92507
Partner Project No. 22-367348.1

Dear Mr. Thakkar:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (949) 214-6470.

Sincerely,

Suzi Rosen, PG, CHg
Principal and Managing Director

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by Dedeaux Properties, LLC. for the property located at 1151 Palmyrita Avenue in Riverside, Riverside County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Dedeaux Properties, LLC. with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the east side of Iowa Avenue and the north side of Palmyrita Avenue within a mixed commercial and industrial area of Riverside County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Address(es):	1151 Palmyrita Avenue and 950 Iowa Avenue, Riverside, California
Property Use:	Commercial / Warehouse Distribution
Land Acreage (Ac):	13.6 Total Ac: 1.67 Ac (950 Iowa Avenue) and 11.93)1151 Palmyrita Avenue
Number of Buildings:	One
Number of Floors:	One
Gross Building Area (SF):	Approximately 97,000 SF (Total)
Net Rentable Area (SF):	97,000 SF (Total)
Date of Construction:	1975
Assessor's Parcel Number (APN):	247-170-030 (950 Iowa Avenue) and 247-170-039 (1151 Palmyrita Avenue
Type of Construction:	Metal Siding, slab-on-grade concrete foundation
Current Tenants:	BarretteWood USA and Barrette Outdoor Living
Site Assessment Performed By:	Janet Tentler of Partner
Site Assessment Conducted On:	April 27, 2022

The subject property is currently occupied by BarretteWood USA and Barrette Outdoor Living for commercial use. The western portion of the subject property consists of 1.67 acres of vacant land (950 Iowa Avenue). The eastern portion of the subject property consists of 11.93 acres of land improved with a single-story, metal warehouse distribution building, three railroad spurs, and landscaped areas surrounded by a fence. Onsite operations consist of warehousing and distribution of nylon and vinyl fencing materials. In addition to the current structure, the subject property is also improved with asphalt parking area, an exterior asphalt-paved storage area, perimeter fencing and limited landscaping.

According to the review of available historical sources, the subject property was formerly undeveloped as early as 1931; developed agriculturally between 1931 to at least 1974; and developed with the current structure in 1975. By 2003, the eastern portion of the subject property was developed with the current parking areas and two railroad spurs. The western portion of the subject property remained agriculturally developed until at least the early 2000s when the orchards were removed leaving a vacant parcel. Tenants

on the subject property have included Ancon Marine (2003-2015); Barrette Outdoor Living (2015-2017); and BarretteWood USA and Barrette Outdoor Living (2017-Present).

The immediately surrounding properties consist of two commercial warehouse distributions buildings (800 Iowa Avenue and 1100 Citrus Street) to the north; Palmyrita Avenue followed by the Iowa Corporate Center which include offices and distribution warehouses (1020 Iowa Avenue, 10050, 1110-1130, 1240 & 1260 Palmyrita Avenue, and 1001 Columbia Avenue) to the south; railroad tracks , followed by Allied Steel Company (1027 Palmyrita Avenue) to the east; and Iowa Avenue followed by miscellaneous warehouse distribution centers (891 & 981 Iowa Avenue to the west.

According to Regional Water Quality Control Board, their online database, GeoTracker and topographic map interpretation, the depth to groundwater in the vicinity of the subject property is inferred to be approximately 100 feet below ground surface (bgs) and groundwater flow is inferred to be toward the west.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Based on the historical information review and the site reconnaissance, railroad spurs are located in the northeastern portion of the subject property, north of the subject building. These structures have the potential to have been impacted throughout the use and transportation of petroleum hydrocarbon, creosote, metals, and poly aromatic hydrocarbons. Additionally, potential contamination from the previous use of the railroad spurs was observed. Partner observed during the field reconnaissance, surficial staining at the western-most portion of the railroad spurs. The staining materials were reported and observed to be consistent with petroleum hydrocarbons, specifically motor oils. Based on the length of use and observed staining the on-site railroad spurs are considered a *recognized environmental condition*.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify any controlled recognized environmental conditions.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- Partner did not identify any historical recognized environmental conditions.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion.

- Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. Should these materials be replaced, the identified suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1151 Palmyrita Avenue and 950 Iowa Avenue in Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- Partner recommends assessment of the railroad spur and associated stained soils prior to redevelopment to assess the presence or absence of soil contamination.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

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Appendix A Site Photographs
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1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 1151 Palmyrita Avenue and 950 Iowa Avenue the City of Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject

property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

Dedeaux Properties, LLC. engaged Partner to perform this assessment pursuant to the MSA. All reports, both verbal and written, are for the sole use and benefit of Dedeaux Properties, LLC. subsidiaries and assigns and additional third parties designated by Dedeaux Properties, LLC; Carlyle Investment Management L.L.C., Carlyle Realty IX, L.L.C. and their affiliates, joint ventures, investors, lenders, and assigns pursuant to MSA. Additional third parties not designated as reliance parties by Dedeaux Properties, LLC, Carlyle Investment Management L.L.C., Carlyle Realty IX, L.L.C. and their affiliates, joint

ventures, investors, lenders, and assigns or Partner who come into possession of this report or all or part of the information generated as a result of this work shall have no rights of recourse or recovery whatsoever under any course of action against Dedeaux Properties, LLC., Carlyle Investment Management L.L.C., Carlyle Realty IX, L.L.C. and their affiliates, joint ventures, investors, lenders, and assigns, Partner, its or their respective officers, employees, vendors, successors or assigns. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the master services agreement between Dedeaux and Partner (the "MSA"), the MSA shall control.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past or current owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment and is not a significant data gap.
- Partner was not able to document the historical use of the subject property prior to 1901. The following sources were reviewed during the course of this assessment and found to be limited: aerial photographs were not available prior to 1931; city directories were not available prior to 1943; topographic maps prior to 1901 were not reasonably ascertainable from local agencies; and other historical sources such as fire insurance maps did not provide coverage of the subject property. This data failure is not considered critical and does not change the conclusions of this report, as the 1901 topographic map revealed the subject property to be residential use. In addition, the adjacent and surrounding areas are also shown mostly as small residential-type structures. This does not represent a significant data gap.
- Partner was unable to determine the property use at 5-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews. This does not represent a significant data gap.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 1151 Palmyrita Avenue and 950 Iowa Avenue in Riverside, California is located at the northeast corner of Iowa avenue and Palmyrita Avenue. According to the Riverside County Assessor, the subject property is legally described as 1.67 ACRES M/L IN PAR 1 PM 210/038 PM 31 (950 Iowa Avenue) and 11.93 ACRES M/L IN POR PAR 3 AND PAR 2 P (1151 Palmyrita Avenue), and ownership is currently vested in BWP Inc. since 2020.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property consists of a total of 13.6 acres of land. The western portion of the subject property consists of 1.67 acres of vacant, undeveloped land (950 Iowa Avenue) The eastern portion of the subject property consists of 11.93 acres of land improved with a single-story, metal distribution warehouse building, associated paved surface parking, three railroad spurs, and associated landscaping. Onsite operations consist of warehousing and distribution of nylon and vinyl fencing materials. In addition to the current structure, the subject property is also improved with asphalt parking area, an exterior asphalt-paved storage area, perimeter fencing and limited landscaping.

The subject property is designated for commercial development by the City of Riverside.

The subject property was identified as a HazNet site in the regulatory database report, as further discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a mixed commercial and industrial area of Riverside County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

Immediately Surrounding Properties

North: Commercial building located at 800 Iowa Avenue and 1100 Citrus Street.

South: Palmyrita Avenue beyond which is the Iowa Corporate Center (1020 Iowa Avenue, 1050, 1110-1130, 1240 & 1260 Palmyrita Avenue, and 1001 Columbia Avenue

East: Railroad tracks beyond which is Allied Steel Company (1027 Palmyrita Avenue)

West: Iowa Avenue beyond which are commercial distribution warehouses (891 and 981 Iowa Avenue)

The adjacent property to the north was identified as a Historic (HIST), Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), No Further Remedial Action Planned (NFRAP), Resource Conservation and Recovery Act (RCRA) Large Quantity Generator (LQG), Land Disposal Site (LDS), Envirostor, Historical Hazardous Substance Storage (HHSS), Superfund Enterprise Management System (SEMS) Archive, Emissions, Climate and Environmental Retrieval and Archive (CERA) HAZ, Calsites, Waste Management Unit Database (WMUD), Underground Storage Tank (UST) and Emissions Inventory Data (EMI) site in the regulatory database report of Section 4.2.

The adjacent property to the east was identified as a RCRA-LQG site in the regulatory database report of Section 4.2.

The adjacent property to the west was identified as an UST site in the regulatory database report of Section 4.2

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *San Bernardino South, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 920 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is sloping gently toward the west. The subject property is depicted on the 2021 map as urban development.

A copy of the most recent topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

According to topographic map interpretation, the direction of groundwater flow in the vicinity of the subject property is inferred to be toward the west. The nearest surface water in the vicinity of the subject property is the Spring Book Wash located approximately 0.3 miles north of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

According to available information, a public water system operated by the Riverside Public Utility (RPU) serves the subject property vicinity. According to a representative of the RPU, shallow groundwater beneath the subject property is not utilized for domestic purposes. The sources of public water for the City of Riverside are from groundwater sources located in the San Bernardino Bunker Hill Basin and the Riverside Basin.

According to Regional Water Quality Control Board and their online database, GeoTracker and topographic map interpretation, the depth to groundwater in the vicinity of the subject property is inferred to be approximately 100 feet below ground surface (bgs) and groundwater flow is inferred to be toward the west.

2.4.3 Geology/Soils

The subject property is located in the Peninsular Ranges geomorphic province of the State of California. The Peninsular Ranges are a northwest-southwest oriented complex of blocks separated by similarly trending faults. They extend from the Traverse Ranges and the Los Angeles Basin south to the Mexican border and beyond to the tip of Baja California and are bounded on the east by the Colorado Desert and the Gulf of California. The Peninsular Ranges contain minor Jurassic and extensive Cretaceous igneous rocks associated with the Nevadan plutonism. Marine Cretaceous sedimentary rocks are well represented, and post-Cretaceous rocks form a restricted veneer of volcanic, marine, and nonmarine sediments.

Based on information obtained from the USDA Natural Resources Conservation Service Web Soil Survey online database, the subject property is mapped as Buren fine sandy loam and Greenfield sandy loam. The

series consists of moderately well-drained, permeable soils. These soils are of alluvium derived from granite. Slopes range from 2 to 8 percent.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06065C0065G, dated August 28, 2008, the subject property appears to be located in Zone X, an area located outside of the 100-year and 500-year flood plains.

A copy of the reviewed flood map is not included in Appendix B of this report.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1901-1974	Aerial Photographs, Topographic Maps	Residential & agricultural land
1975-Present	Aerial Photographs, Building Records, City Directories, Interviews, Onsite Observations, Topographic Maps	Commercial

According to the review of available historical sources, the subject property was formerly undeveloped as early as 1931; developed agriculturally between 1931 to at least 1974; and developed with the current structure in 1975. By 2003, the eastern portion of the subject property was developed with the current parking areas and two railroad spurs. The western portion of the subject property remained agriculturally developed until at least the early 2000s when the orchards were removed leaving a vacant parcel. Tenants on the subject property have included Ancon Marine (2003-2015); Barrette Outdoor Living (2015-2017; and BarretteWood USA and Barrette Outdoor Living (2017-Present).

The subject property parcel was historically used for agricultural purposes. There is a potential that agricultural related chemical such as pesticides, herbicides, and fertilizers, may have been used and stored onsite. The subject property is either paved over or covered by the building structure that minimizes direct contact to any potential remaining concentration in the soil. Additionally, during previous site development activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) were generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over underlying soils as part of the development activities. Furthermore, it is likely that residential agricultural chemicals would have likely degraded since the site was last utilized for agricultural chemicals. Based on these reasons, Partner concludes that the possible former use of agricultural chemicals is not a significant environmental concern. Potential environmental concerns were identified in association with the former use of the railroad spurs located to the north of the subject building and is further discussed in Section 6.2.3.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Risk Information Services (ERIS) on April 21, 2022. The following was observed on the subject property and adjacent properties during the aerial photograph review:

Date: 1931, 1938, 1948, 1953	*Scale: 1"=500'*
Subject Property:	Developed with one farmhouse-type structure within the southwestern corner of the subject property. The remainder of the subject property is depicted as agricultural land (orchards)
North:	Agriculturally developed land and one small farmhouse-type structure
South:	Palmyrita Avenue followed by agriculturally developed land and one small farmhouse structure
East:	Developed with railroad tracks followed by agriculturally developed land and one

Date:	***1931, 1938, 1948, 1953***	***Scale:***	***1"=500'***
	small farmhouse-type structure		
West:	Iowa Avenue followed by agriculturally developed land and one small farmhouse-type structure		

Date:	***1962***	***Scale:***	***1"=500'***
Subject Property:	Developed with a railroad spur on the northern portion of the subject property. The remainder of the subject property is depicted as agriculturally developed land		
North:	Developed with a large commercial/industrial building		
South:	No significant changes visible		
East:	Railroad tracks followed by agriculturally developed land		
West:	Iowa Avenue followed by agriculturally developed and vacant land		

Date:	***1966***	***Scale:***	***1"=500'***
Subject Property:	No significant changes visible		
North:	Developed with a large industrial building, a brine pond, and agriculturally developed land		
South:	No significant changes visible		
East:	Railroad tracks followed by a commercial building and agriculturally developed land		
West:	No significant changes visible		

Date:	***1976, 1980, 1985***	***Scale:***	***1"=500'***
Subject Property:	Developed with the existing building at 1151 Palmyrita Avenue and a railroad spur on the northern portion of the property. Agriculturally developed land is depicted along the west, south, and east boundaries of the property		
North:	No significant changes visible		
South:	No significant changes visible		
East:	No significant changes visible		
West:	Iowa Avenue followed by vacant land and a commercial building		

Date:	***1995***	***Scale:***	***1"=500'***
Subject Property:	No significant changes visible		
North:	No significant changes visible		
South:	Iowa Avenue followed by multiple commercial buildings		
East:	No significant changes visible		
West:	No significant changes visible		

Date:	***2002***	***Scale:***	***1"=500'***
Subject Property:	The structure remains depicted on the western portion or the property and the eastern portion of the property appears to be graded		
North:	No significant changes visible		
South:	No significant changes visible		
East:	No significant changes visible		
West:	No significant changes visible		

Date:	***2004, 2006***	***Scale:***	***1"=500'***
Subject Property:	No significant changes visible		
North:	No significant changes visible		

Date: 2004, 2006		*Scale: 1"=500'*
South:	No significant changes visible	
East:	No significant changes visible	
West:	Increased development is depicted across Iowa Avenue	

Date: 2009		*Scale: 1"=500'*
Subject Property:	The eastern portion of the property appears to be graded and developed into an asphalt-paved storage area	
North:	The property to the north is depicted as fully developed	
South:	The property to the south is depicted as fully developed	
East:	The property to the east is depicted as fully developed	
West:	The property to the west is depicted as fully developed	

Date: 2012, 2016, 2018, 2020		*Scale: 1"=500'*
Subject Property:	No significant changes visible with the exception, the eastern portion of the property is depicted with material storage	
North:	No significant changes visible	
South:	No significant changes visible	
East:	No significant changes visible	
West:	No significant changes visible	

Copies of the aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Partner reviewed the collection of Sanborn Fire insurance maps from ERIS on April 21, 2022. Sanborn map coverage was not available for the subject property.

3.3 City Directories

Partner reviewed historical city directories obtained from ERIS on April 26, 2022 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

City Directory Search for 1151 Palmyrita Avenue (Subject Property)	
Year(s)	**Occupant Listed**
1925, 1931, 1934, 1941, 1945, 1951, 1966, 1971, 1977, 1984, 1986, 1991, 1996	No Listing
2001, 2003, 2008, 2012	Ancon Transportation
2016, 2020	Barrette Outdoor Living and Ancon Transportation

According to the city directory review, the subject property has been occupied by Barrette Outdoor Living since at least 2016 to present. Prior to 2016, the subject property was occupied by Ancon Transportation from 2001 to 2020. No listing for 950 Iowa Avenue were identified.

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
1925, 1931, 1934, 1941, 1945, 1951, 1966	Private Individual Listings
1971	Lily Tulip Division (800 Iowa Avenue)

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
1977	Lily Division (800 Iowa Avenue)
1984	Lily Tulip Cup Division (800 Iowa Avenue)
1986	Lily Tulip Cup, Inc. (800 Iowa Avenue)
1991	Fort Howard Cup (800 Iowa Avenue)
1996	Sweetheart Cup (800 Iowa Avenue)
2003	IEM Furniture (800 Iowa Avenue)
2008	IEM Furniture and King Kong USA (800 Iowa Avenue)
2012	No Listing (800 Iowa Avenue)
2016, 2020	Rust-oleum (800 Iowa Avenue)

According to the city directory review, the adjacent property to the north has been formerly occupied by Lily-Tulip Cup, Sweetheart Cup, IEM Furniture, and Rust-oleum operating as a manufacturing tenant between at least 1971 to 2020; however, during Partner's site reconnaissance, the site appeared to be unoccupied.

Copies of reviewed city directories are not included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from ERIS on April 21, 2022. The following was observed on the subject property and adjacent properties during the topographic map review:

Date: 1896, 1898, 1901	
Subject Property:	Developed with two small structures residential-type structures on the southern portion of the property
North:	Undeveloped
South:	Undeveloped across Palmyrita Avenue
East:	Undeveloped across railroad tracks
West:	Undeveloped across Iowa Avenue

Date: 1938	
Subject Property:	No significant changes depicted
North:	No significant changes depicted
South:	No significant changes depicted
East:	No significant changes depicted
West:	No significant changes depicted

Date: 1942	
Subject Property:	Depicted as agricultural land
North:	Depicted as agricultural land
South:	Depicted as agricultural land across Palmyrita Avenue
East:	Depicted as agricultural land across railroad tracks
West:	Depicted as agricultural land across Iowa Avenue

Date: 1954	
Subject Property:	Depicted as agricultural land
North:	Depicted as agricultural land
South:	Depicted as agricultural land across Palmyrita Avenue
East:	Depicted as agricultural land across railroad tracks
West:	Depicted as agricultural land across Iowa Avenue

Date: 1973	
Subject Property:	Depicted as agricultural land
North:	Depicted as Lily Cup across a railroad spur
South:	Depicted as agricultural land across Palmyrita Avenue
East:	Depicted with a commercial building across railroad tracks
West:	Depicted as agricultural land across Iowa Avenue

Date: 1975, 1980	
Subject Property:	Depicted with the warehouse structure that presently exists
North:	Depicted as Lily Cup across a railroad spur
South:	Depicted as agricultural land across Palmyrita Avenue
East:	Depicted with a commercial building across railroad tracks
West:	Depicted as agricultural land across Iowa Avenue

Date: 2015, 2018, 2020	
Subject Property:	Depicted with the warehouse structure that presently exists and two railroad spurs
North:	Depicted as urban development across a railroad spur
South:	Depicted as urban development across Palmyrita Avenue
East:	Depicted as urban development across railroad tracks
West:	Depicted as urban development across Iowa Avenue

Copies of reviewed topographic maps are included in Appendix B of this report.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 Health Department

Regulatory Agency Data	
Name of Agency:	Riverside County Health Department of Environmental Health (DEH)
Point of Contact:	Suzanne Cauffiel
Agency Address:	4065 County Circle Drive, Room 104, Riverside, California
Agency Phone Number:	(951) 358-7018
Date of Contact:	April 25, 2022
Method of Communication:	Faxed Request
Summary of Communication:	No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the DEH.

4.1.2 Fire Department

Regulatory Agency Data	
Name of Agency:	Riverside Fire Department (RFD)
Point of Contact:	Records
Agency Address:	3900 Main Street, 4th Floor, Riverside, California
Agency Phone Number:	(951) 826-5737
Date of Contact:	April 25, 2022
Method of Communication:	Online Request
Summary of Communication:	No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the RFD.

4.1.3 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	South Coast Air Quality Management District (SCAQMD)
Point of Contact:	Online Search
Agency Address:	21865 Copley Drive, Diamond Bar, California
Agency Phone Number:	(909) 396-2000
Date of Contact:	April 25, 2022
Method of Communication:	Online
Summary of Communication:	No Permits to Operate (PTO), Notices of Violation (NOV), or Notices to Comply (NTC) or the presence of AULs, dry cleaning machines, or USTs were on file for the subject property with the SCAQMD.

4.1.4 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	Regional Water Quality Control Board (RWQCB)
Point of Contact:	http://geotracker.waterboards.ca.gov
Agency Phone Number:	(916) 323-2514
Date of Contact:	April 25, 2022
Method of Communication:	Online Database
Summary of Communication:	The subject property was not identified on the RWQCB's GeoTracker online database

4.1.5 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC)
Point of Contact:	http://envirostor.dtsc.ca.gov
Agency Phone Number:	(877) 786-9427
Date of Contact:	April 25, 2022
Method of Communication:	Online Database
Summary of Communication:	The subject property was not identified on the DTSC's EnviroStor online database

4.1.6 Building Department

Regulatory Agency Data	
Name of Agency:	City of Riverside Building & Safety (RBS)
Agency Address:	3900 Main Street, 3rd Floor, Riverside, California
Agency Phone Number:	(951) 826-5697
Date of Contact:	April 25, 2022
Method of Communication:	Online Database
Summary of Communication:	Records were available for review for 1151 Palmyrita Avenue, as further discussed in the following table. No records were available for 950 Iowa Avenue

Building Records Reviewed for 1151 Palmyrita Avenue (Subject Property)		
Year(s)	**Owner/Applicant**	**Description**
1998	Lily Tulip Inc.	Retaining Wall
1998	Lily Tulip Inc.	Storm Drain
2015	Barrette Outdoor Living	Notice to Barrette from the City of Riverside

4.1.7 Planning Department

Regulatory Agency Data	
Name of Agency:	City of Riverside Planning Division
Agency Address:	3900 Main Street, 3rd Floor, Riverside, California
Agency Phone Number:	(951) 826-5371
Date of Contact:	April 25, 2022
Method of Communication:	Online Search
Summary of Communication:	According to records reviewed, the subject property is Mission Grove Specific Plan, Business and Manufacturing Park Zone (BMP SP) for commercial and industrial development

4.1.8 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Division of Oil, Gas and Geothermal Resources (CDOGGR)
Point of Contact:	Http://maps.conservation.ca.gov
Agency Phone Number:	(916) 322-1080
Date of Contact:	April 25, 2022
Method of Communication:	Online Database
Summary of Communication:	According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

4.1.9 Assessor's Office

Regulatory Agency Data	
Name of Agency:	Riverside County Assessor (RCA)
Agency Address:	4080 Lemon Street, 1st Floor, Riverside, California
Agency Phone Number:	(951) 955-9553
Date of Contact:	April 25, 2022
Method of Communication:	Online Database
Summary of Communication:	According to records reviewed, the subject property is identified by Assessor Parcel Numbers (APNs) 247-170-030 (950 Iowa Avenue) and 247-170-039 (1151 Palmyrita Avenue) and is currently owned by BWP, Inc. for the 13.6 acre lot.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Risk Information Services (ERIS). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data				
Database	**Search Radius (mile)**	**Subject Property**	**Adjacent Properties**	**Sites of Concern**
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	**Y**	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	**Y**	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	**Y**	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	**Y**	N
State/Tribal Leaking Storage Tank Site	0.50	N	**Y**	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	N	**Y**	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.125	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
HazNet	Subject Property	**Y**	N	N

4.2.2 Subject Property Listings

The subject property is identified as a HazNet site in the regulatory database report, as discussed below:

- The subject property, identified as Ancon Marine at 1151 Palmyrita Avenue is identified on the HazNet database from 2001; however, no items, chemicals, or details were provided. The responsible party is identified as Ancon Marine. Based on the regulatory status, this listing does not represent a significant environmental concern.

4.2.3 Adjacent Property Listings

The adjacent property to the north is identified in the regulatory database report, as discussed below:

- The property, identified as Lily-Tulip, Inc., Rust-oleum Group, Sweetheart Cup Company, Brine Facility at Lily-Tulip at 800 Iowa Avenue, is located adjacent to the north and hydrologically dross-gradient of the subject property. This site is identified on the CERCLIS, CERCLIS NFRAP, RCRA LQG, RCRA SQG, Deed, LDS, EnviroStor, HHSS, SEMS Archive, Emissions, CERS Haz, HIST Tank, HWG Riverside, Cal-Sites, and WMUD databases. According to GeoTracker records reviewed, Lily-Tulip and Sweetheart Cup Company formerly conducted manufacturing operations at the property located at 800 Iowa Avenue from the late 1960s to the mid-1990s. The facility was listed

as a Category C facility which has a passive waste treatment and disposal system. The operations included a brine pond and eight associated seepage pits on an adjacent parcel located east of their facility. Industrial waste and raw sewage were discharged to the eight pits situated south of the brine pond. A remediation plan with oversight from the RWQCB commenced in March of 1996, which included the removal of liquids from the seepage pits, drilling out the pits, treating material, installing caps, groundwater monitoring, and excavating contaminated soils. As a result, the RWQCB issued a No Further Action (NFA) letter on October 27, 12006 for the brine pond removal and replacement of two 12,000-gallon diesel fuel underground storage tanks (USTs) which were installed in the mid-1970s. These USTs were removed in 1989 with regulatory oversight provided by the DEH. No indications of contamination were noted in the field. Soil samples were collected from below each tank cavity. On August 25, 2010, DEH issued closure based on the determination that no significant contamination exists. The EnviroStor database reported that the solvent release to the soil at the site was closed. This facility was listed as a RCRA LQG of ignitable waste and corrosive waste with no violations found. Based on the regulatory closure and remediation activities conducted under regulatory oversight, these listings do not represent a significant environmental concern.

- The property identified as West Coast Wire and Steel, Inc. and Allied Steel at 1027 Palmyrita is located adjacent to the east of the subject property, east of the railroad tracks. This site is identified as a RCRA LQG, CERS Haz, and a HWG Riverside site for ignitable and spent non-halogenated solvent wastes. No violations were reported. Based on the regulatory status, this site is not a significant environmental concern.
- The property identified as Riverside Terminal and Roofline Supply at 841 Iowa Avenue is located adjacent to the west of the subject property, west of Iowa Avenue. This site is identified as a HHSS, CERS Haz, HIST Tank, and UST SWEEPS site. This site is reported as a HIST Tank site for regular petroleum products, lube oil, and waste oil. Tanks located at this facility are identified as the following: one 10,000-gallon diesel UST; one 5,000-gallon diesel UST; one 5,000-gallon unleaded gasoline UST; one 5,000-gallon lube oil UST; one 1,000-gallon waste oil UST; and one 2,000-gallon unleaded gasoline UST. GeoTracker reported that the tanks were removed in October 1987. Site closure was granted on August 24, 1993, based on sampling results with no significant contamination reported and no further mitigation was required. Based on the removal of the tanks, the analytical results, and regulatory closure, this site is not a significant environmental concern.

Based on the findings, vapor migration is not significant environmental concern.

4.2.4 Sites of Concern Listings

No sites of concern are identified in the regulatory database report.

4.2.5 Unplottable Listings

No unplottable listings of concern are identified in the regulatory database report.

A copy of the regulatory database report is included in Appendix C of this report.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from Dedeaux Properties, LLC. (User of this report).

User Responsibilities				
Item	**Provided By User**	**Not Provided By User**	**Discussed Below**	**Does Not Apply**
AAI User Questionnaire	**X**			
Title Records, Environmental Liens, and AULs			**X**	
Specialized Knowledge			**X**	
Actual Knowledge			**X**	
Valuation Reduction for Environmental Issues			**X**	
Identification of Key Site Manager	**Section 5.1.3**			
Reason for Performing Phase I ESA	**Section 1.1**			
Prior Environmental Reports			**X**	
Other				**X**

5.1 Interviews

5.1.1 Interview with Owner

The owner of the subject property, identified as BWP, Inc., was not available to be interviewed at the time of the assessment.

5.1.2 Interview with Report User

Please refer to Section 5.2 below for information requested from the Report User. The information requested was not received prior to the issuance of this report. The lack of this information is not considered to represent a significant data gap.

5.1.3 Interview with Key Site Manager

Mr. Kore Dees, West Coast Warehouse & Distribution Manager was unavailable at the time of the site inspection; however, his son, Kore Dees Jr., also an employee of Barrette, was made available, Mr. Dees Jr. indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Mr. Dees Jr., the subject property was developed in 1975 for commercial use. Prior to that, the subject property was developed agriculturally as early as 1931 until circa 1966. Mr. Dees Jr. further stated that there are no USTs, ASTs, clarifiers, oil/water separators, groundwater monitoring wells, or hazardous substance use/storage/generation on the subject property to the best of his knowledge.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment. A specific search for environmental liens and activity and use limitations was not included in the scope of work for this ESA. However, based on information obtained from the User and the Environmental Risk Information Services (ERIS) Radius Map Report, no evidence of environmental liens recorded against the subject Property was found. In addition, according to the ERIS-provided information for the subject Property, no evidence of institutional controls, land use restrictions and/or engineering control requirements recorded against the subject Property has been reported.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

The following information was provided to Partner for review:

Phase I Environmental Site Assessment, Palmyrita and Iowa (December 12, 2014) Partner Engineering & Science, Inc. (Partner) prepared this report on behalf of Barrette Outdoor Living, Inc. c/o Bruce A. Wobeck, Esq. The assessment was performed in accordance with ASTM Standard E1527-13. The assessment consisted of a site reconnaissance, interviews with knowledgeable personnel, review of historical information, a review of federal, state and local regulatory databases. The assessment was performed on a larger parcel of land that included the subject property. Pertinent information contained in this report is summarized below:

- At the time of the 2014 assessment, the subject property was unoccupied;
- According to the Partner report, the subject property was formerly occupied by Lily-Tulip Cup, Sweetheart Cup, Ancon Transportation and Ancon Marine for warehousing purposes;
- No current or former ASTs or USTs were identified on the subject property;
- Partner reviewed a previous Phase II Subsurface investigation for the subject property prepared by Athanor environmental Service, Inc (AES) and dated May 28, 2010. According to this previous report, a subsurface investigation was completed to assess stained soils between the subject property building and Rust-Oleum building (800 Iowa Avenue) along the onsite railroad spur tracks. AES advanced six borings to a depth of 5-feet below ground surface (bgs) and analyzed several soil samples for total recoverable petroleum hydrocarbons (TRPH) and volatile organic compounds (VOCs). The detected TRPH soil concentrations ranged from 1,600-parts per million (ppm) to 19,000-ppm, which exceeded the RWQCB May 1996 Interim Site Assessment & Cleanup Guidebook limit of 1,000-ppm. AES recommended remediation by exploratory excavation to remove TRPH contaminated soils. No remediation information associated with the stained soils was available with the local agencies or provided to Partner for review;
- On August 23, 2010, URS Corporation (URS) provided an Opinion Letter for the onsite soil contamination. The URS letter indicated that the remediation is not necessary due to the shallow depth of the contamination (approximately 6 inches bgs), the industrial use of the property, the lack of shallow groundwater in the areas, the lack of additional contaminants detected (metals or

VOCs), the location of the contamination solely in the areas of the railroad spur, noting, unless the railroad spur was to be removed, the contamination would be difficult to remediate the soil, and the likelihood for the contamination to attenuate over time; and

- Partner concurred with the URS Opinion Letter and did not recommend any further action in regard to the soil contamination. Partner did state; however, if redevelopment of the subject property was to be planned, partner recommended that the soils be excavated and removed in accordance with applicable regulations.

Partner recommended that if redevelopment of the subject property were to take place, it was recommended that the railroad spur be removed and that the stained soils be excavated and removed in accordance with applicable regulations.

Copies of 2010 pertinent pages reviewed are included in Appendix B of this report.

Phase I Environmental Site Assessment, 1151 Palmyrita Avenue and 950 Iowa Avenue (February 8, 2016) Partner Engineering & Science, Inc. (Partner) prepared this report on behalf of BMO as Agent for the Lenders. The assessment was performed in accordance with ASTM Standard E1527-13. The assessment consisted of a site reconnaissance, interviews with knowledgeable personnel, review of historical information, a review of federal, state and local regulatory databases. The assessment was performed on a larger parcel of land that included the subject property. Pertinent information contained in this report is summarized below:

- At the time of the 2016 assessment, the subject property was occupied by Barrette Outdoor Living;
- According to the Partner report, the subject property formerly occupied by Ancon Marine for warehousing purposes;
- No current or former ASTs or USTs were identified on the subject property; and
- Partner reported one REC for the site. According to historical documents and the 2016 site reconnaissance, railroad spurs are located to the north of the subject property's building. Partner reported that these structures had the potential to have been impacted through the use and transportation of petroleum hydrocarbons, creosote, coal ash, metals, and poly aromatic hydrocarbons. Based on the length of use of the railroad spurs were considered to represent a REC.

Partner recommended that if redevelopment of the subject property were to take place, it was recommended that a limited subsurface investigation would be required in order to determine the presence or absence of soil and/or groundwater contamination due to historical use of the property. Partner also recommended, due to the age of the building, an Operations & Maintenance (O&M Program should be implemented in order to safely manage any suspect ACMs located at the site.

Copies of pertinent pages reviewed are included in Appendix B of this report.20102

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Janet Tentler
Site Assessment Conducted On:	April 27, 2022

The table below provides the subject property personnel interviewed during the field reconnaissance:

Site Visit Personnel for 1151 Palmyrita Avenue (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Kore Dees	West Coast Warehouse & Distribution Manager	(951) 680-9164	No
Kore Dees, Jr.	Barrette Employee	(951) 680-9164	Yes

** Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property*

The environmental concern identified during the onsite reconnaissance related to the presence of soil contamination within the area of the railroad spur within the northern portion of the subject property as further discussed in Sections 6.1 and 6.2.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in commercial dumpsters located within the central portion of the subject property. An independent solid waste disposal contractor, Athens Services, removes solid waste from the subject property. According to property personnel, only household trash is collected in the onsite solid waste dumpsters.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges on the subject property are directed into the municipal sanitary sewer system. The City of Riverside services the subject property vicinity. No wastewater treatment facilities or septic systems were observed or reported on the subject property.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains located throughout the property and in the public right of way.

The subject property does/does not appear to be a designated wetland area, based on information obtained from the United States Department of Agriculture; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Riverside Public Utilities and The Gas Company.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the sanitary sewer system. No industrial process is currently performed at the subject property.

6.1.7 Septic Systems

No septic systems were observed or reported on the subject property.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Subject Property

No evidence of the use of reportable quantities of hazardous substances was observed on the subject property. Small quantities of general maintenance supplies, cleaning products and propane (for forklifts) were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. The storage and use of maintenance supplies does not pose a significant threat to the environmental integrity of the subject property.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former ASTs or USTs was observed during the site reconnaissance.

6.2.3 Evidence of Releases

Partner observed during the field reconnaissance, major staining at the western-most portion of the railroad spur. It was reported to Partner that a recent subsurface investigation was performed by an unknown contractor. If future excavations should occur, the railroad spur area should be investigated prior to any subsurface work.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – *"Non-PCB;"* 2) 50 ppm-500 ppm – *"PCB-Contaminated;"* and, 3) Greater than 500 ppm – *"PCB-Containing."* The

manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after July 2, 1979.

The onsite reconnaissance addressed indoor and outdoor transformers that may contain PCBs. One pad-mounted transformer was observed on the subject property. The transformer is not labeled indicating PCB content. No staining or leakage was observed in the vicinity of the transformer. Southern California Edison (SCE) maintains ownership and operational responsibility for the transformer and that the unit does not contain PCBs. Based on the good condition of the equipment, the transformer is not a significant environmental concern.

Additionally, no other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property building was constructed in 1975. A limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property was conducted. The objective of this visual survey

was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

Suspect ACMs			
Suspect ACM	**Location**	**Friable Yes/No**	**Physical Condition**
Drywall Systems	Throughout Building Interior	No	Good
Floor Tiles	Throughout Building Interior	No	Good
Floor Tile Mastic	Throughout Building Interior	No	Good
Ceiling Tiles	Throughout Building Interior	Yes	Fair
Roofing Materials	Roof	No	Good

Partner was not provided building plans or specifications for review, which may have been useful in determining areas likely to have used ACM.

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

According to the USEPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to any disturbance of the construction materials within this facility, a comprehensive ACM survey is recommended.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property building (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA Radon Zones		
EPA Zones	**Average Predicted Radon Levels**	**Potential**
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the USEPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

6.3.4 Lead in Drinking Water

According to available information, a public water system operated by the Riverside Public Utilities serves the subject property vicinity. The sources of public water for the City of Riverside are from groundwater sources located in the San Bernardino Bunker Hill Basin and the Riverside Basin.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property building for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment.

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises. No items of environmental concern were identified on the adjacent properties during

the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards.

7.0 FINDINGS AND CONCLUSIONS

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

- Based on the historical information review and the site reconnaissance, railroad spurs are located in the northeastern portion of the subject property, north of the subject building. These structures have the potential to have been impacted throughout the use and transportation of petroleum hydrocarbon, creosote, metals, and poly aromatic hydrocarbons. Additionally, potential contamination from the previous use of the railroad spurs was observed. Partner observed during the field reconnaissance, surficial staining at the western-most portion of the railroad spurs. The staining materials were reported and observed to be consistent with petroleum hydrocarbons, specifically motor oils. If future excavations should occur, the railroad spur area should be investigated prior to any subsurface work. Based on the length of use and observed staining the on-site railroad spurs are considered a *recognized environmental condition*.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify any controlled recognized environmental conditions.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- Partner did not identify any historical recognized environmental conditions.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion.

- Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. Should these materials be replaced, the identified suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1151 Palmyrita Avenue and 950 Iowa Avenue in Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- If future excavations and/or soil removal should occur, the railroad spur area should be investigated in order to determine the presence or absence of soil contamination.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 1151 Palmyrita Avenue in Riverside, Riverside County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

Janet L. Tentler

Janet Tentler
Environmental Professional

Reviewed By:

Jeff Lasker, PE
Project Manager

9.0 REFERENCES

Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13

Environmental Risk Information Services (ERIS), Database Report, April 2022

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via internet, April 2022

Partner Engineering & Science, Inc., Phase I Environmental Site Assessment, Palmyrita and Iowa December 12, 2014

Partner Engineering & Science, Inc., Phase I Environmental Site Assessment, 1151 Palmyrita Avenue and 950 Iowa Avenue, February 8, 2016

United States Department of Agriculture, Natural Resources Conservation Service, accessed via internet, April 2022

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the internet, April 2022

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, April 2022

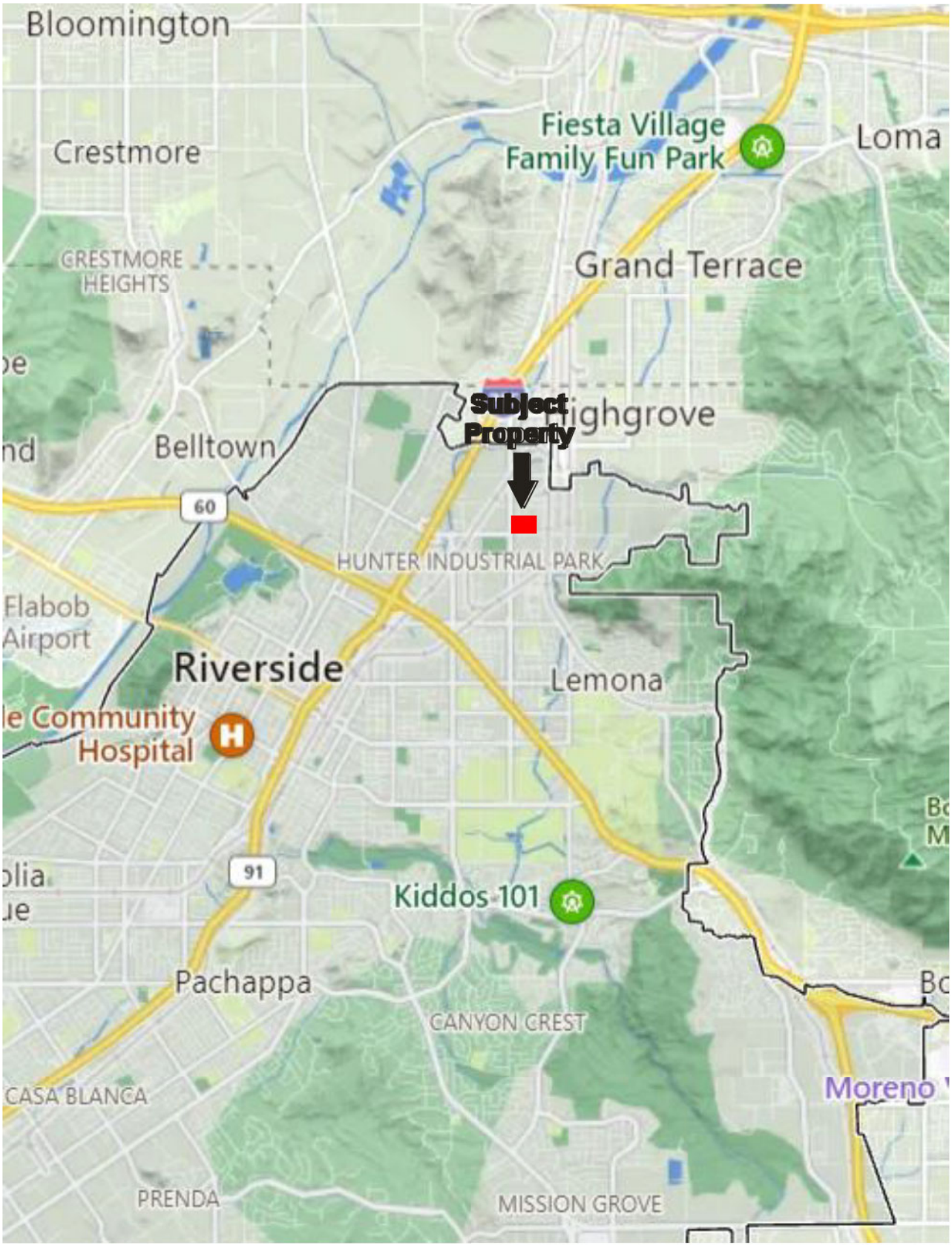
United States Geological Survey, accessed via the Internet, April 2022

United States Geological Survey Topographic Map 1995, 7.5 minute series, accessed via internet, April 2022

FIGURES

1 SITE LOCATION MAP
2 SITE PLAN
3 TOPOGRAPHIC MAP

PARTNER



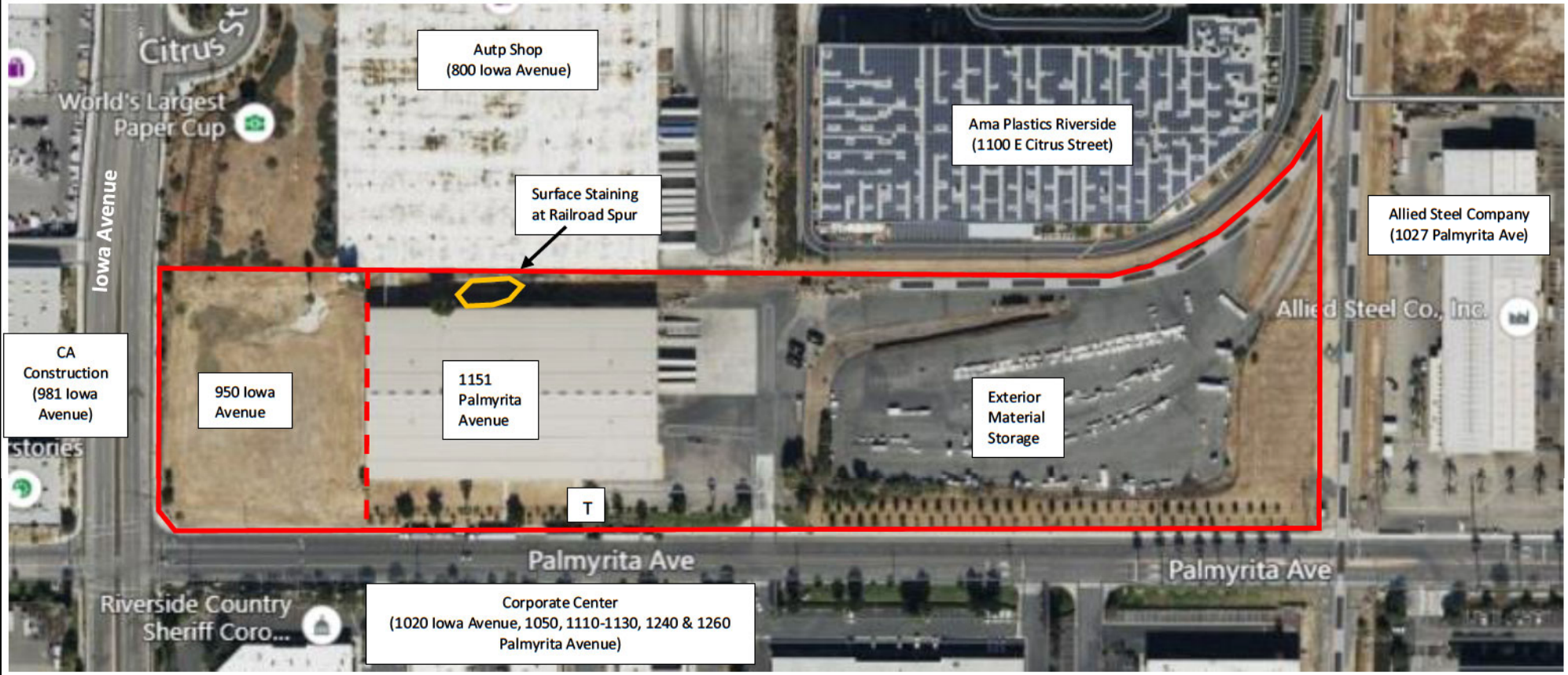
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Drawing Not To Scale

KEY:
Subject Property

FIGURE 1: SITE LOCATION MAP
Project No. 22-367348.1

PARTNER



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GROUNDWATER FLOW

KEY:

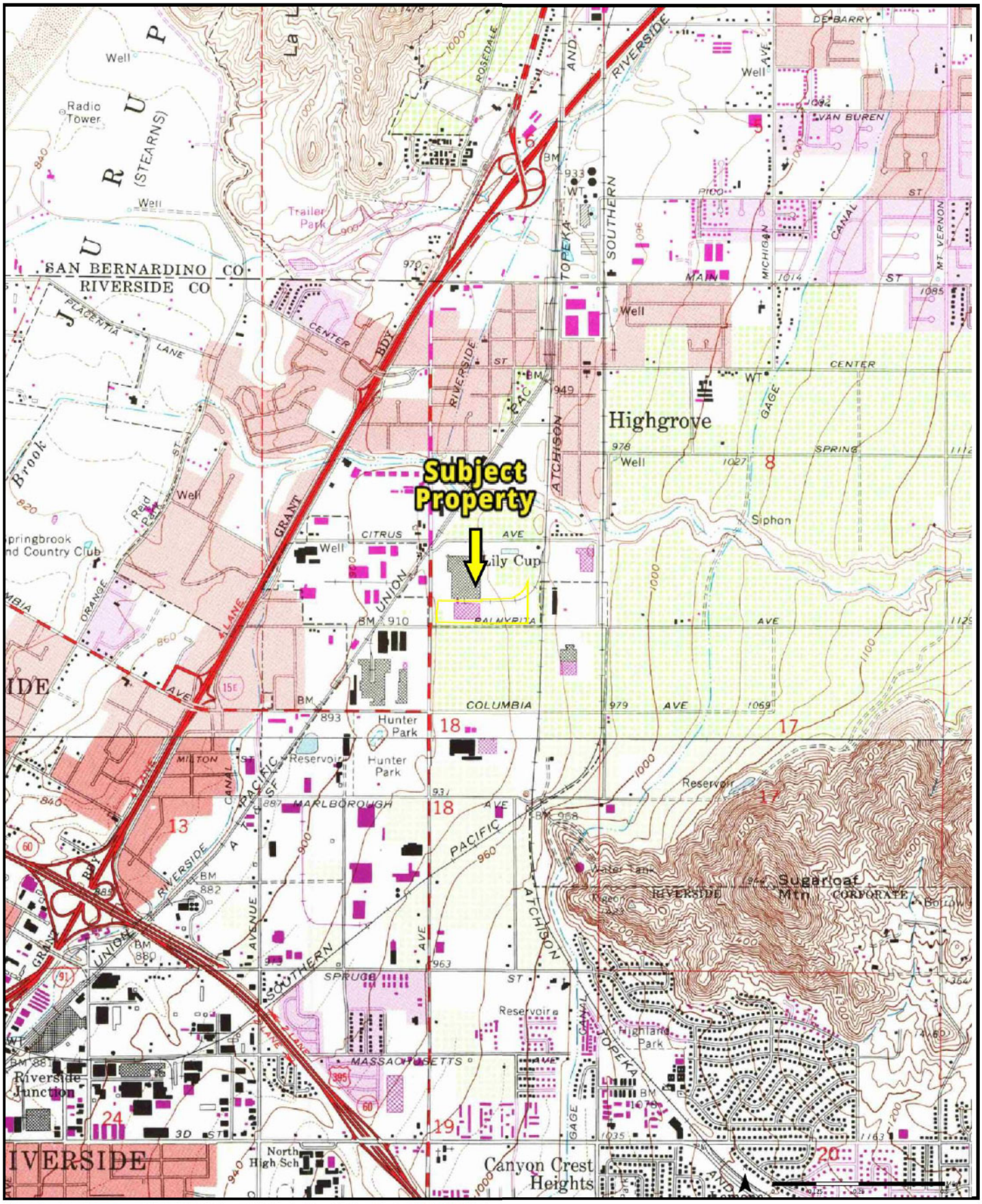
Subject Property

Transformer T

FIGURE 2: SITE PLAN

Project No. 22-367348.1

PARTNER



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USGS 7.5 Minute *San Bernardino South* Quadrangle
Created: 1980

KEY:
Subject Property

FIGURE 3: TOPOGRAPHIC MAP
Project No. 22-367348.1

PARTNER

APPENDIX A: SITE PHOTOGRAPHS



1. Overview of subject Property, 1151 Palmyrita Avenue



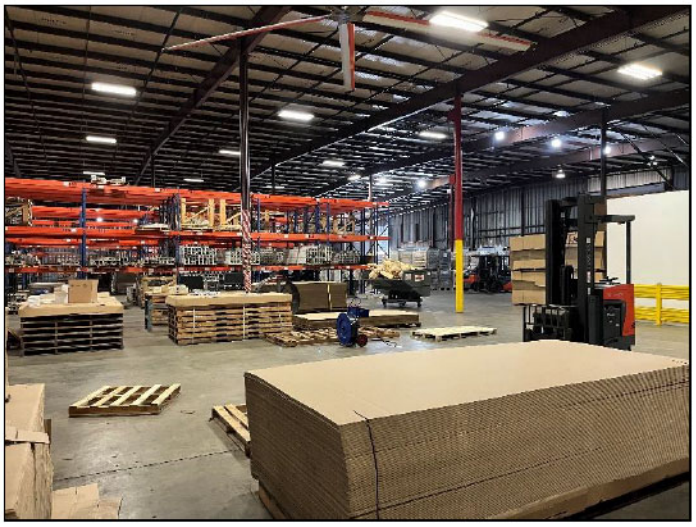
2. Subject Property, 1151 Palmyrita Avenue, Entrance off of Palmyrita Avenue



3. Subject Building, looking West



4. Subject Building, perimeter fencing looking West and Athens Roll Off Bin



5. Interior Warehousing Fencing Material



6. Interior Warehousing Storage Area



7. Exterior Material Storage within the Eastern Portion of the Subject Property



8. South of Subject Building along Palmyrita Avenue



9. 950 Iowa Avenue Vacant land to the west of the Site Building



10. View to the west of the subject property



11. SCE Pad-Mounted Electrical Transformer



12. Western Portion of the on-site Railroad Spur



13. Eastern Portion of the on-site Railroad Spur



14. Western Portion of the Railroad Spur (surface staining)



15. Evidence of Surface Staining at the Western Portion of the Railroad Spur



16. Surface Staining at the Western Portion of the Railroad Spur



17. Additional Surface Staining at the Western Portion of the Railroad Spur



18. Surface Staining at the Western Portion of the Railroad Spur



19. Neighboring Property to the North



20. Neighboring Property to the North



21. Neighboring Property to the South



22. Neighboring Property to the South



23. Neighboring Properties to the South



24. Neighboring Property to the North

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

PARTNER

HISTORICAL AERIALS

Project Property: Dedeaux Palmyrita Riverside
1151 Palmyrita Avenue
Riverside CA 92507

Project No: 22-367348.1

Requested By: Partner Engineering and Science, Inc.

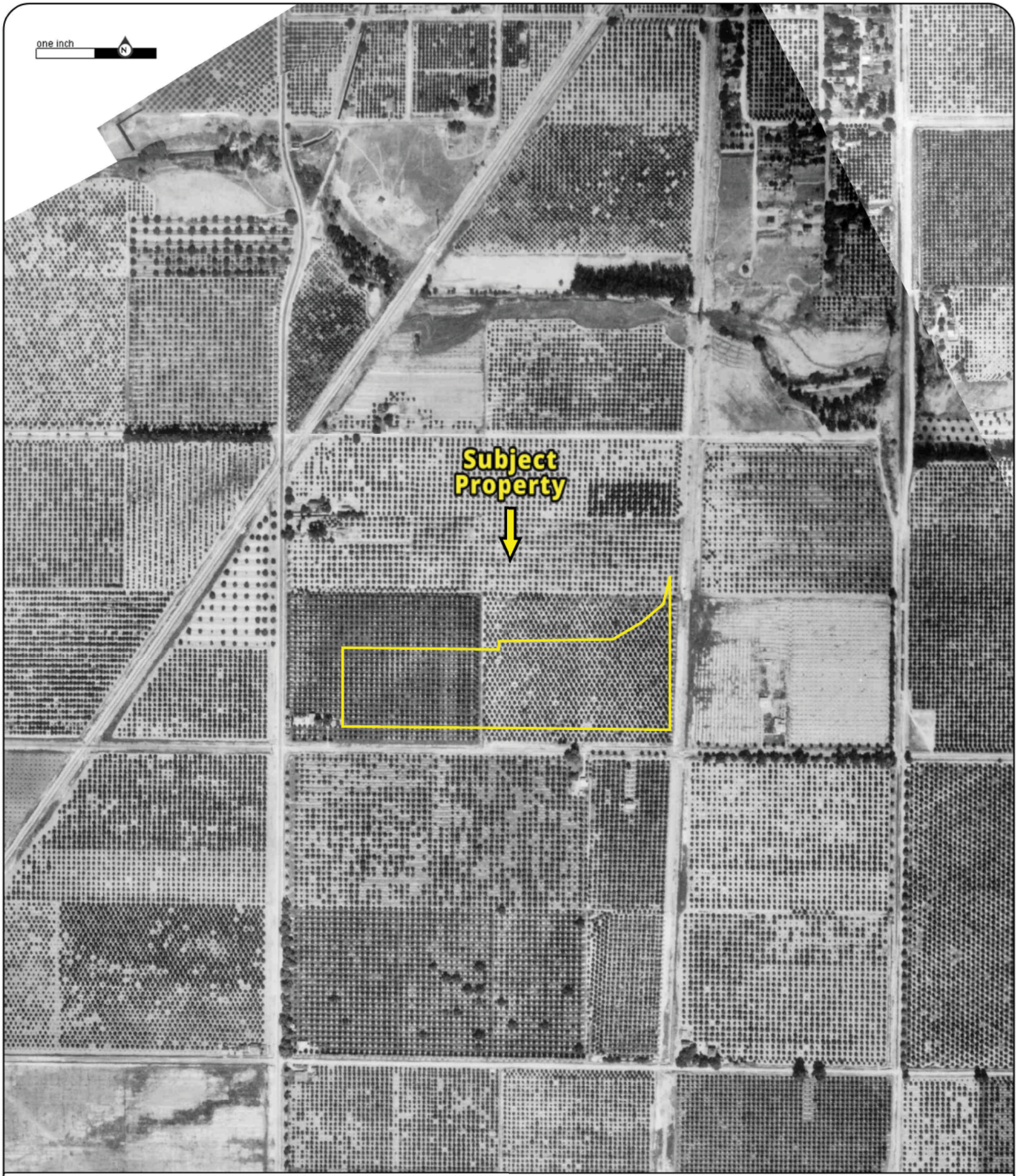
Order No: 22042000887

Date Completed: April 22,2022

Aerial Maps included in this report are produced by the sources listed above and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property. ERIS provides no warranty of accuracy or liability. The information contained in this report has been produced using aerial photos listed in above sources by ERIS Information Inc. (in the US) and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS'. The maps contained in this report do not purport to be and do not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Date	Source	Scale	Comments
1931	FAIRCHILD	1" = 500'	
1938	Agricultural Stabilization & Conserv. Service	1" = 500'	
1948	United States Geological Survey	1" = 500'	
1953	Agricultural Stabilization & Conserv. Service	1" = 500'	
1962	FAIRCHILD	1" = 500'	
1966	United States Geological Survey	1" = 500'	
1976	PRIVATE	1" = 500'	
1980	United States Geological Survey	1" = 500'	
1985	United States Geological Survey	1" = 500'	
1995	United States Geological Survey	1" = 500'	
2002	United States Geological Survey	1" = 500'	
2004	United States Department of Agriculture	1" = 500'	
2006	United States Department of Agriculture	1" = 500'	
2009	United States Department of Agriculture	1" = 500'	
2012	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	

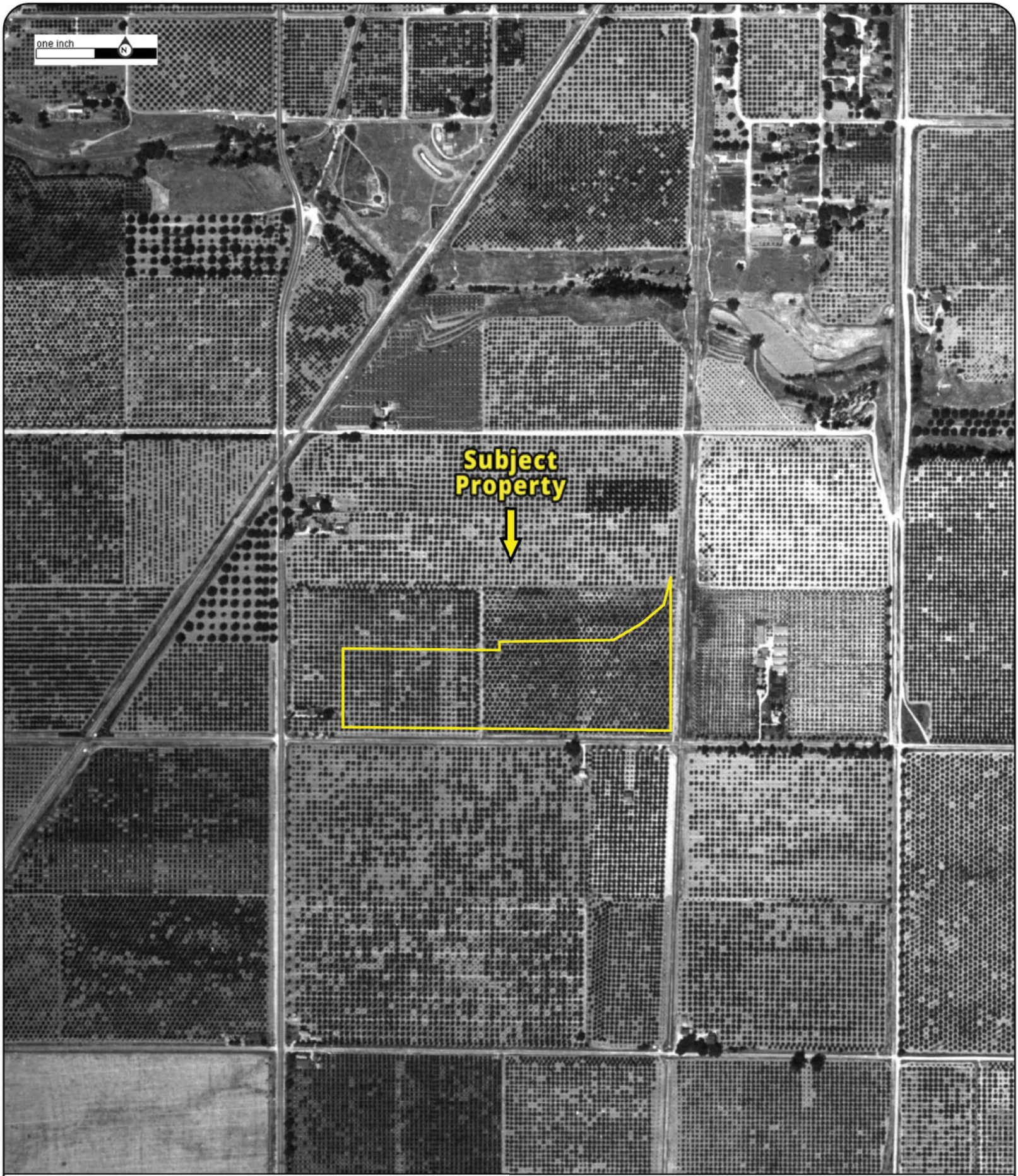


Year: 1931
Source: FAIRCHILD
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

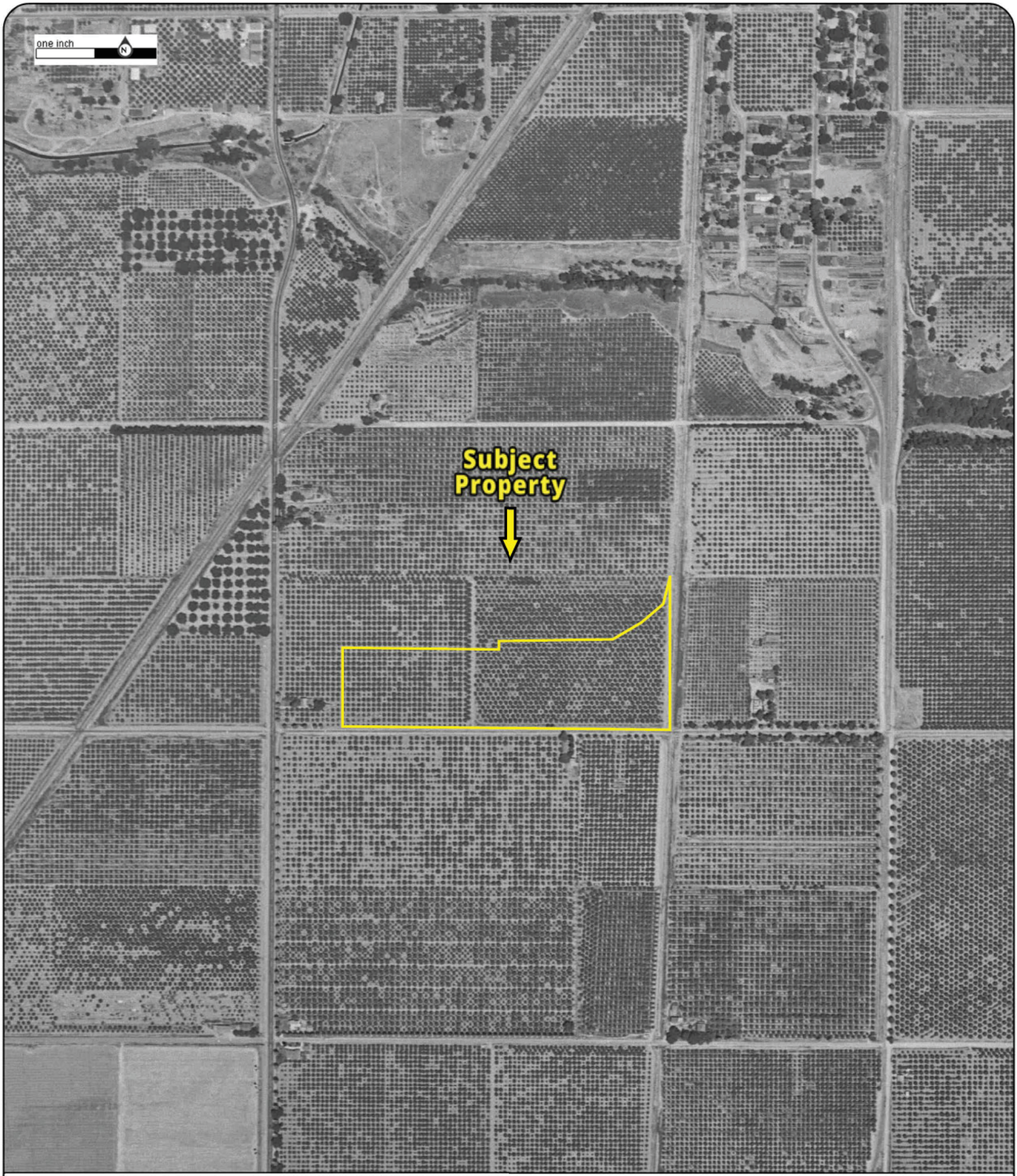


Year: 1938
Source: ASCS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

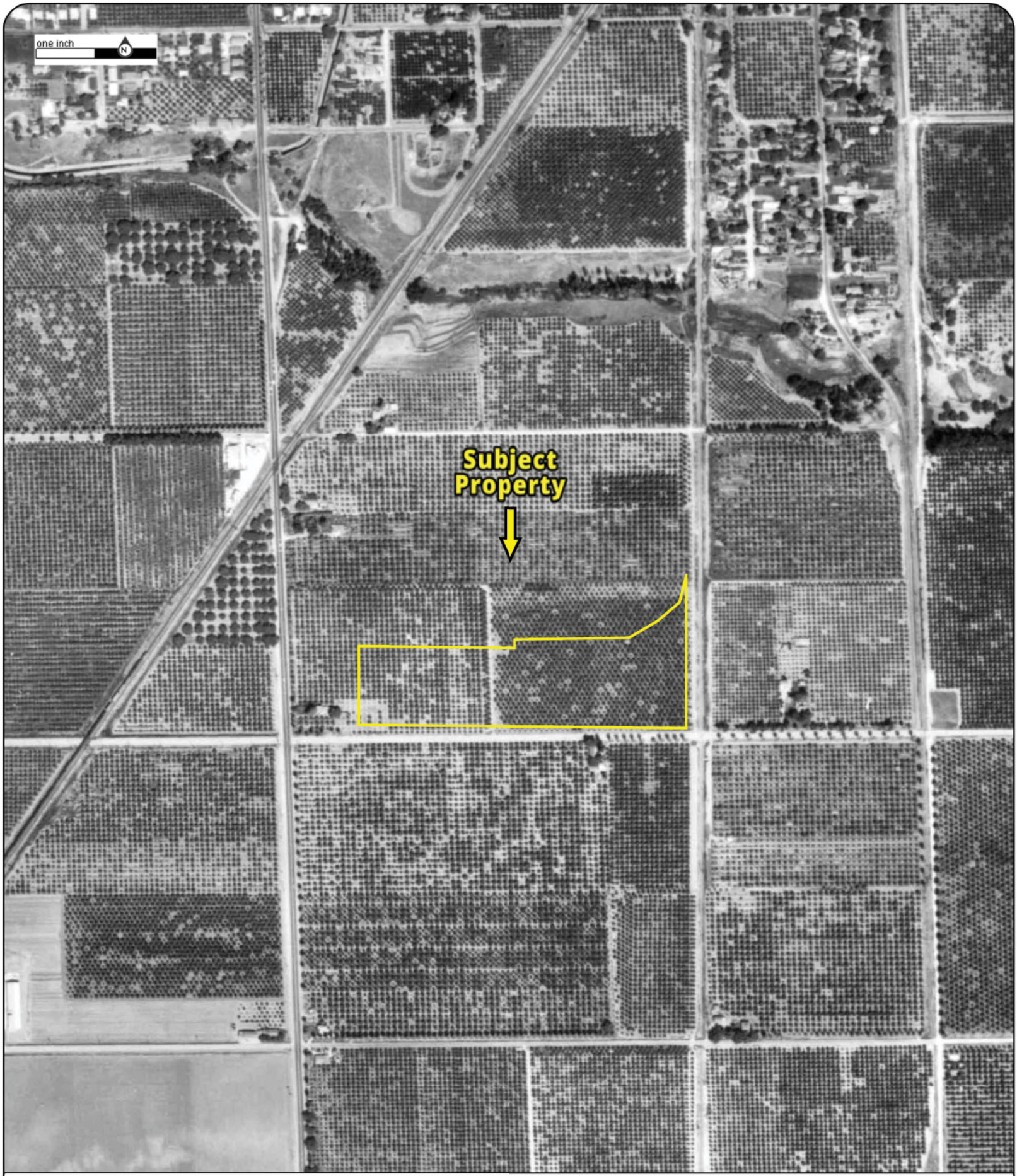


Year: 1948
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 1953
Source: ASCS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

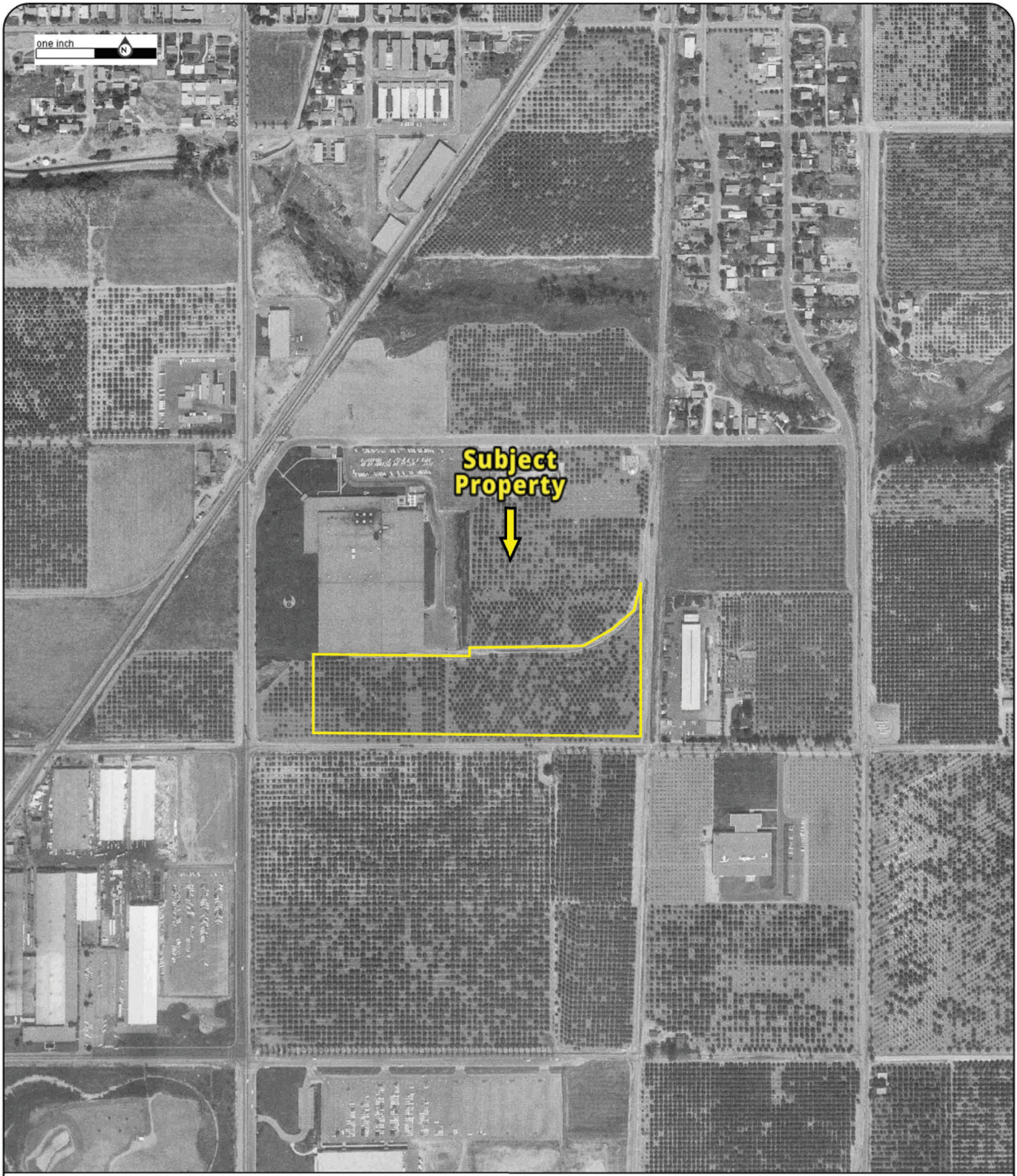


Year: 1962
Source: FAIRCHILD
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 1966
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

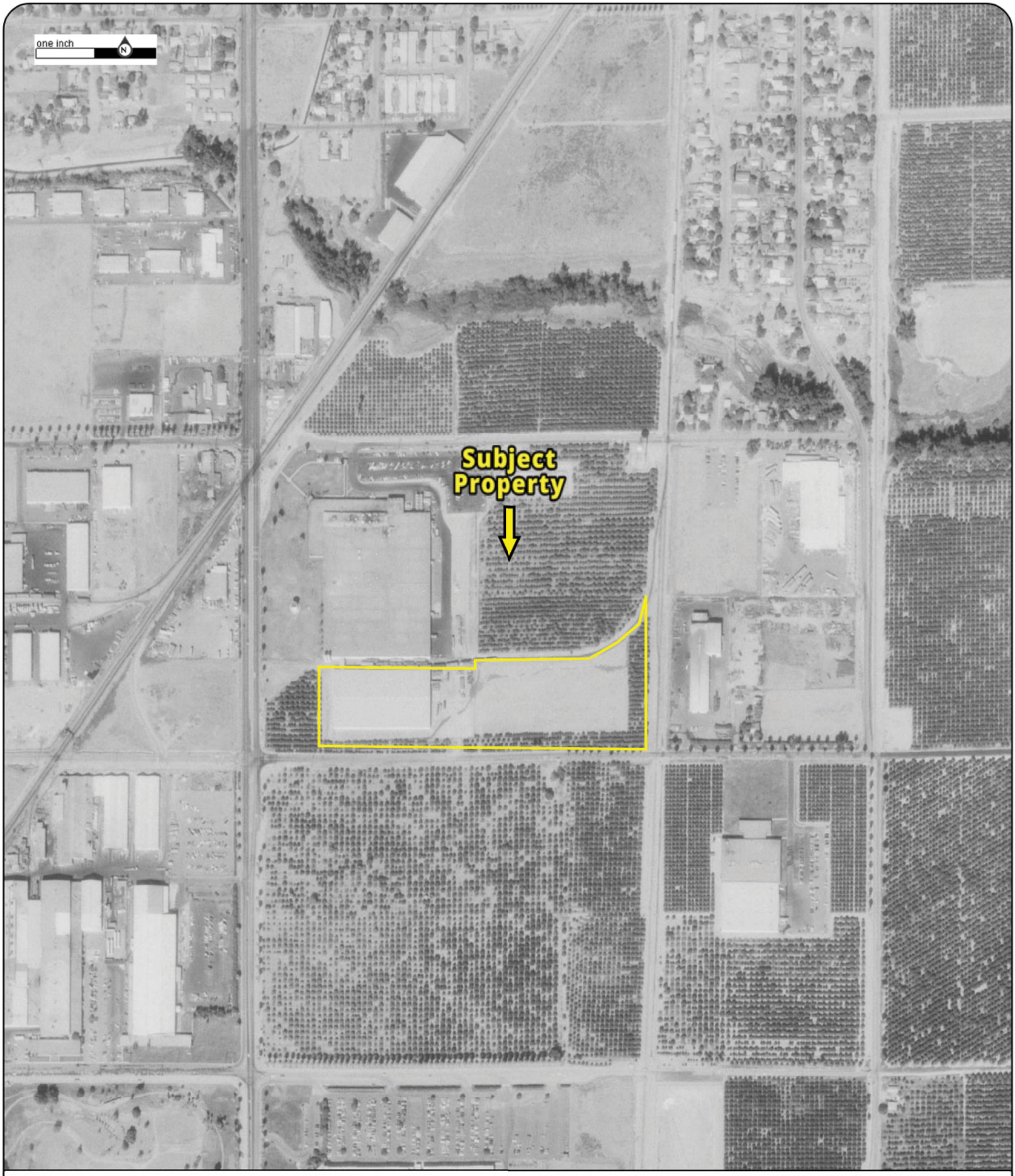


Year: 1976
Source: PRIVATE
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

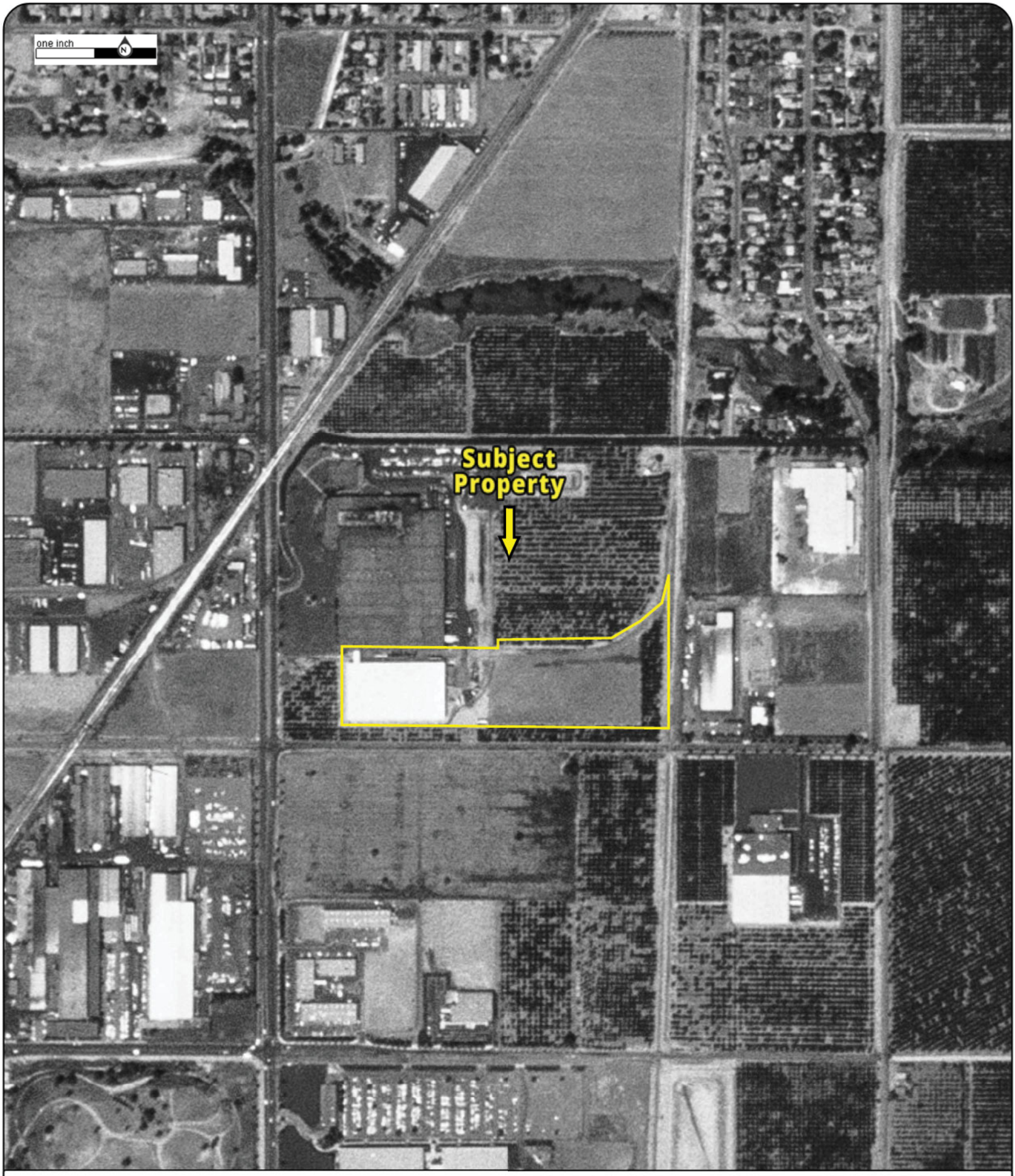


Year: 1980
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 1985
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 1995
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 2002
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 2004
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 2006
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

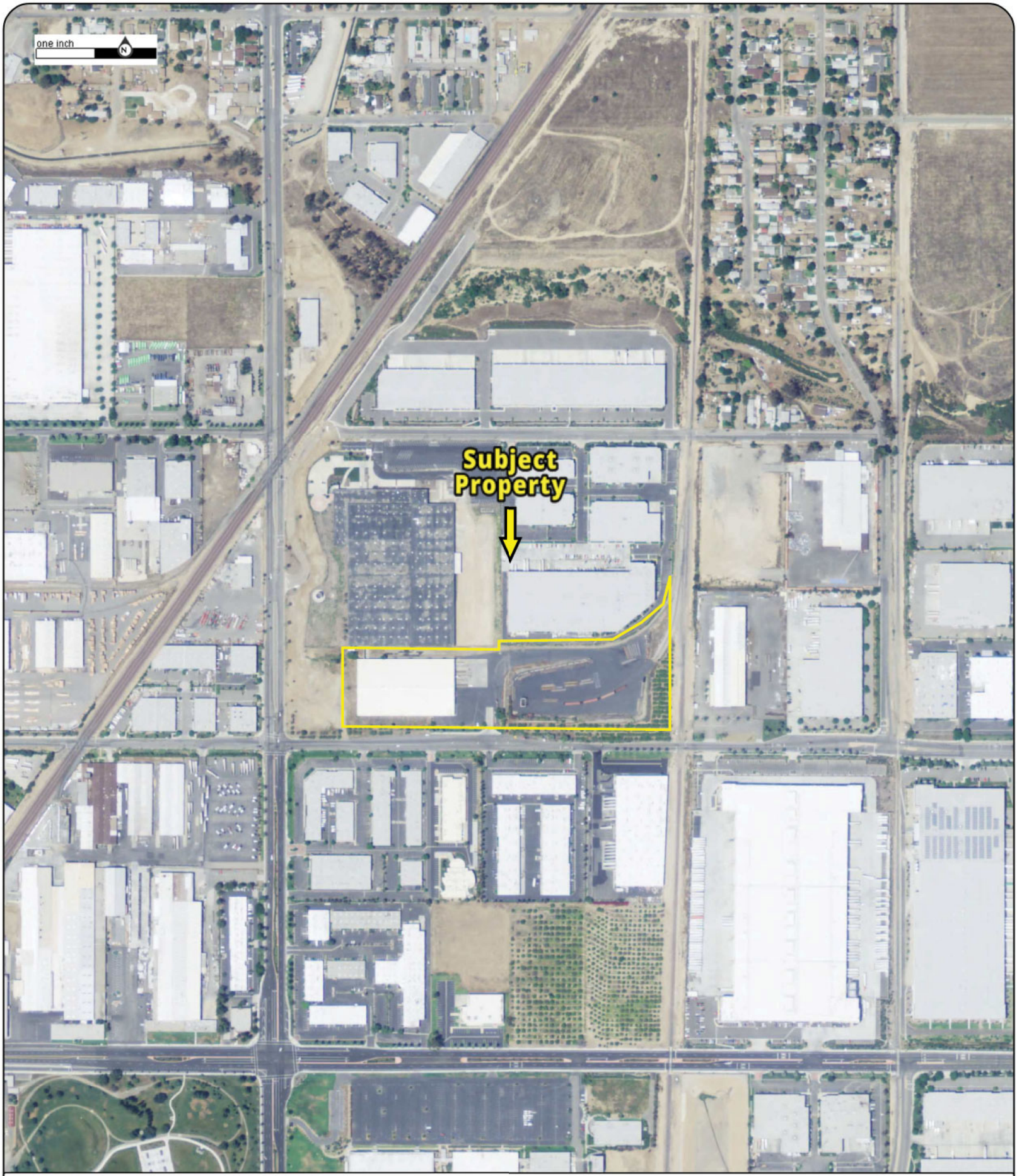


Year: 2009
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

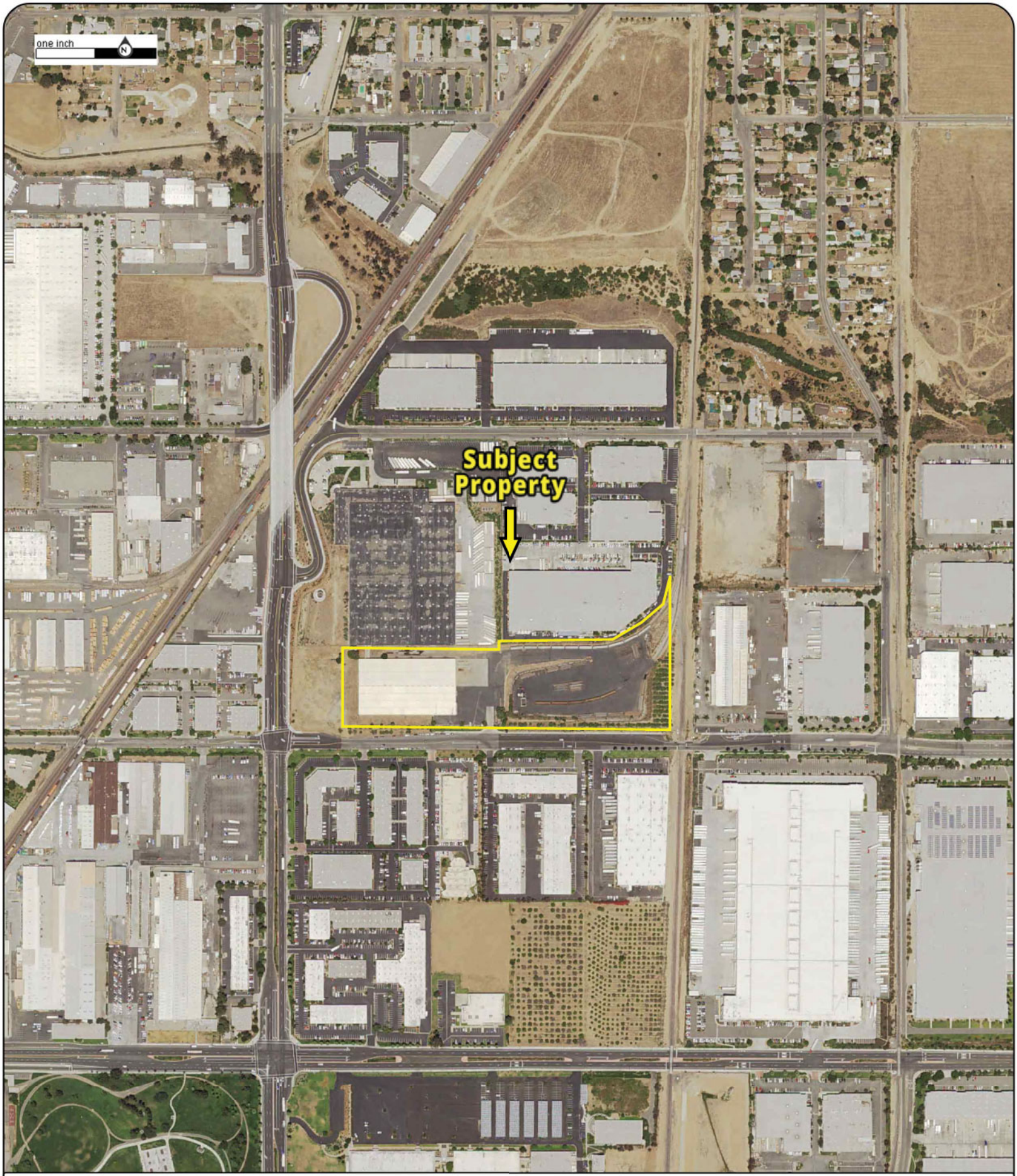


Year: 2012
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

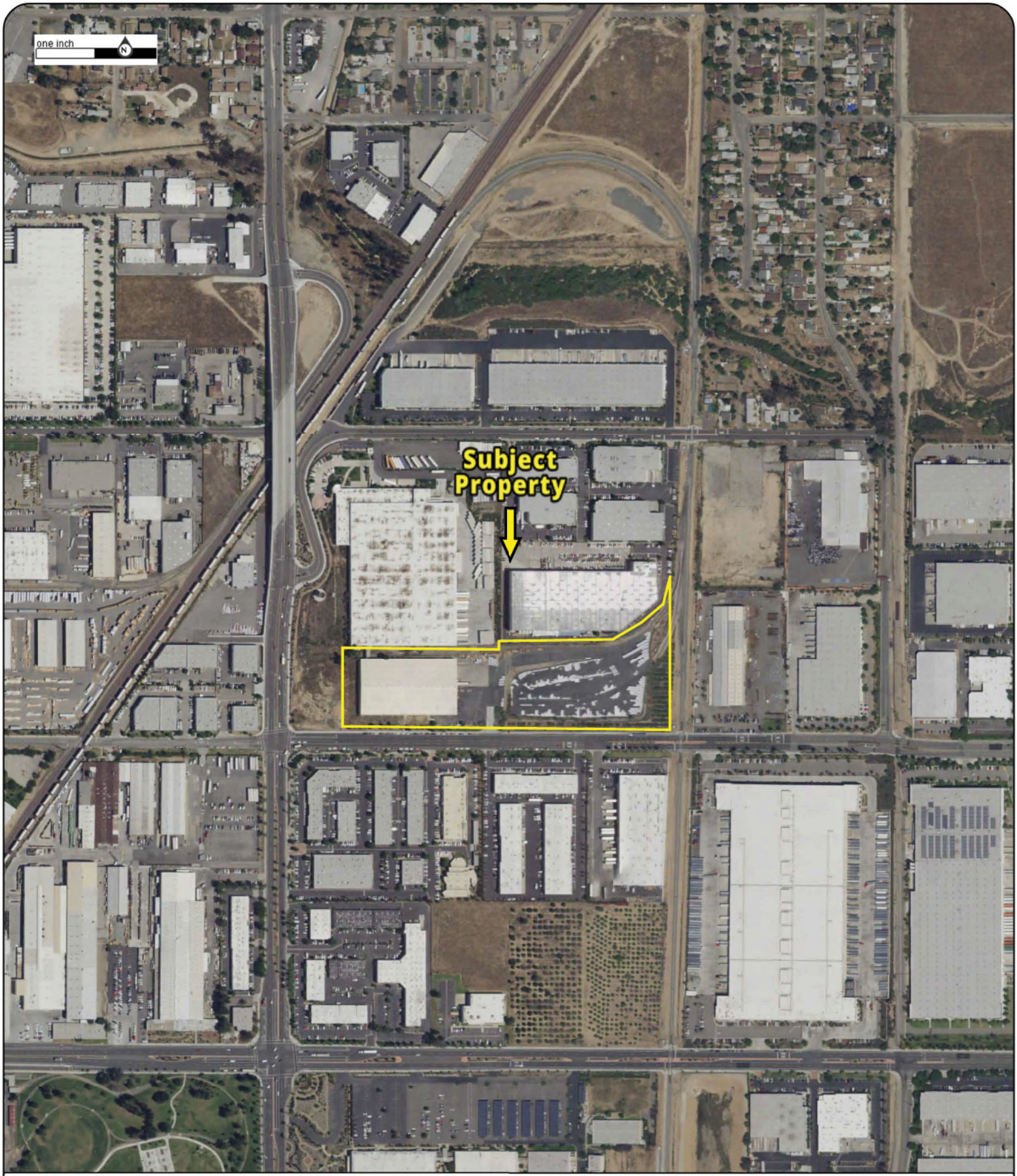


Year: 2014
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

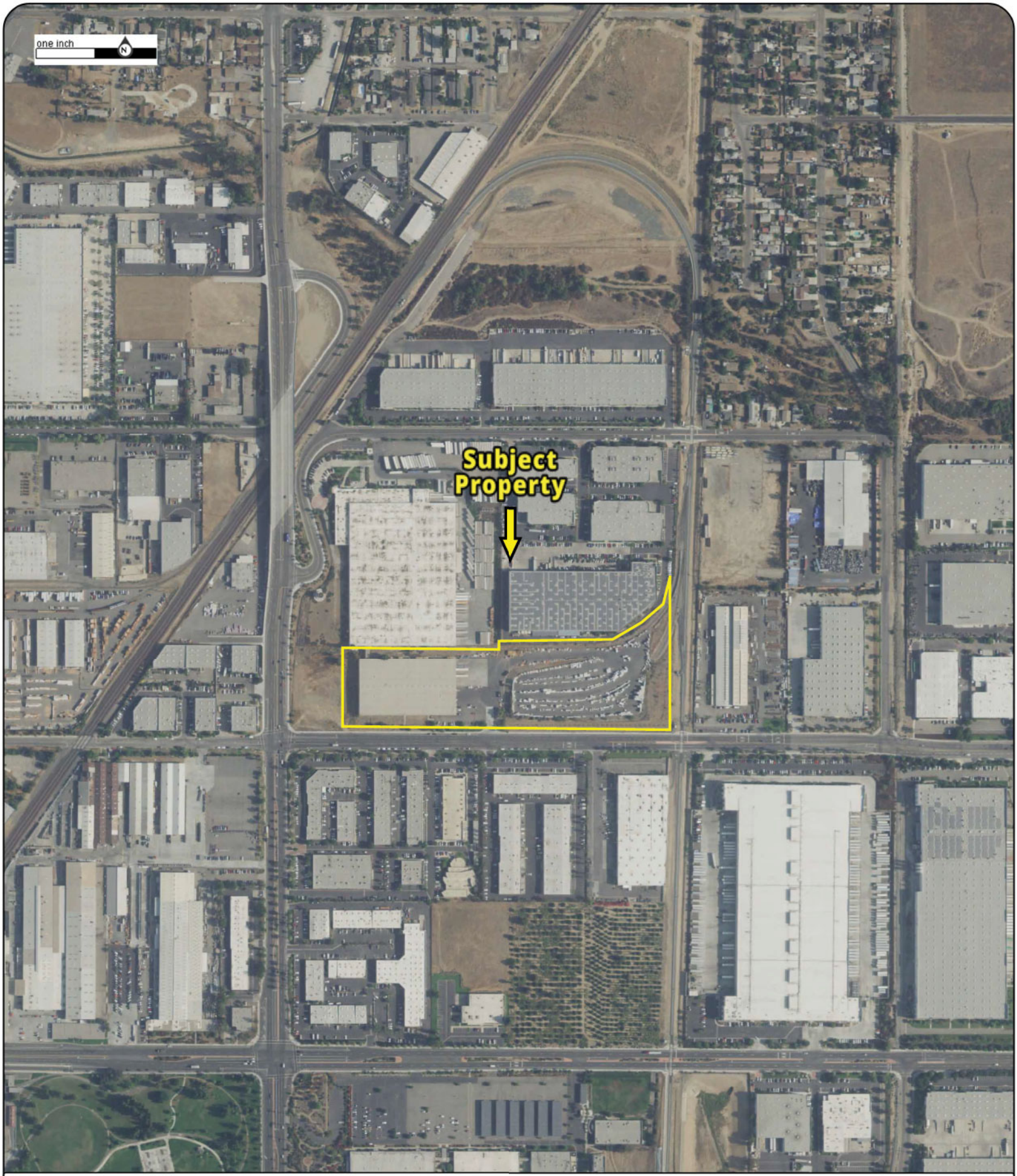


Year: 2016
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

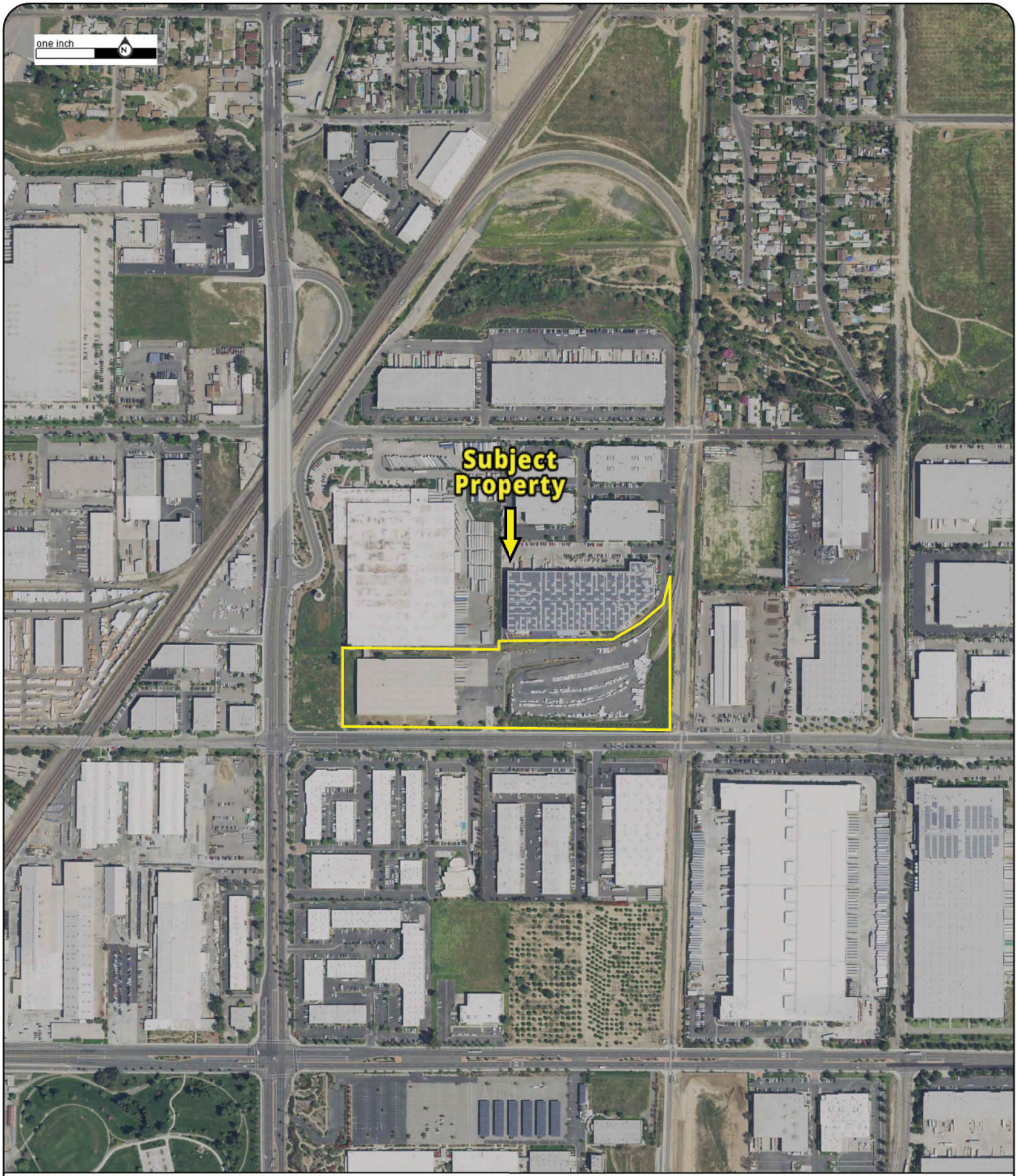


Year: 2018
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER



Year: 2020
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1151 Palmyrita Avenue, Riverside, CA
Approx Center: -117.33643536,34.0054812

Order No: 22042000887

PARTNER

FIRE INSURANCE MAPS

Project Property:	Dedeaux Palmyrita Riverside 1151 Palmyrita Avenue Riverside CA 92507
Project No:	22-367348.1
Requested By:	Partner Engineering and Science, Inc.
Order No:	22042000887
Date Completed:	April 21, 2022

Please note that no information was found for your site or adjacent properties.

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

CITY DIRECTORY

Project Property:	*Dedeaux Palmyrita Riverside* *1151 Palmyrita Avenue* *Riverside,CA 92507*
Project No:	*22-367348.1*
Requested By:	*Partner Engineering and Science, Inc.*
Order No:	*22042000887*
Date Completed:	*April 26, 2022*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

April 26, 2022
RE: CITY DIRECTORY RESEARCH
1151 Palmyrita Avenue
Riverside,CA 92507

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
750-1020 of Iowa Ave
1025-1355 of Palmyrita Ave
Search Notes:

Search Results Summary

Date	Source	Comment
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2012	DIGITAL BUSINESS DIRECTORY	
2008	DIGITAL BUSINESS DIRECTORY	
2003	DIGITAL BUSINESS DIRECTORY	
2001	HAINES	
1996	HAINES	
1991	HAINES	
1986	HAINES	
1984	HAINES	
1977	HAINES	
1971	HAINES	
1966	LUSKEYS	
1951	LA DIRECTORY CO	
1945	LA DIRECTORY CO	
1941	LA DIRECTORY CO	
1934	LA DIRECTORY CO	
1931	LA DIRECTORY CO	
1925	LA DIRECTORY CO	

2020 IOWA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

800 **RUST-OLEUM**...PAINT-MANUFACTURERS
800 **RUST-OLEUM CORP**...RUST PREVENTIVES & REMOVERS (WHLS)
841 **INLAND EMPIRE ROOFING SUPPLY**...ROOFING MATERIALSWHOLESALE
841 **INLAND EMPIRE ROOFING SUPPLY**...ROOFING EQUIPMENT & SUPPLIES (WHLS)
841 **PENHALL CO**...CONCRETE BREAKING CUTTING & SAWING & ETC
841 **S R S B R RIVERSIDE CA**...ROOFING MATERIALS
841 **S R S B R RIVERSIDE CA**...NONCLASSIFIED ESTABLISHMENTS
891 **RELIABLE SERVICE CO**...CONSTRUCTION MANAGEMENT
891 **RELIABLE SERVICE CO**...GENERAL CONTRACTORS
981 **C A CONSTRUCTION**...PROPERTY MAINTENANCE
981 **C A CONSTRUCTION**...GENERAL CONTRACTORS
981 **C A CONSTRUCTION**...BUILDING CONTRACTORS
981 **PACIFIC MONARCH NETWORKS**...COMPUTER & EQUIPMENT DEALERS
981 **TAMALE FACTORY**...RESTAURANTS
981 **TAMALE FACTORY**...PHOTOGRAPHERSCOMMERCIAL
981 **TAMALE FACTORY**...MANUFACTURERS
1020 **1020 IOWA AVE INC**...BUSINESS MANAGEMENT CONSULTANTS
1020 **AFSCME LOCAL 3299**...CIVIC ORGANIZATIONS
1020 **CLOAKE IV, WILLIAM T**...MARRIAGE & FAMILY COUNSELORS
1020 **ROBINSON, CAROL SUE**...MARRIAGE & FAMILY COUNSELORS

2020 PALMYRITA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

1027 **ALLIED STEEL**...WELDING & STEEL FABRICATION
1027 **ALLIED STEEL**...STEELDISTRIBUTORS & WAREHOUSES (WHLS)
1027 **SURFA SLICK LLC**...NONCLASSIFIED ESTABLISHMENTS
1050 **MBM CORP**...FOOD PRODUCTS (WHLS)
1050 **MBM CORP**...HEALTH FOOD PRODUCTSWHOLESALE
1050 **NETWOLVES NETWORK SVC LLC**...SERVICES NEC
1110 **DENT GEAR TOOLS**...TOOLS-NEW & USED
1110 **DENT-GEAR TOOLS**...AUTOMOBILE BODY-REPAIRING & PAINTING
1110 **DRIP MORE**...ELECTRONIC CIGARETTES
1110 **HI PERFORMANCE OF AMERICA**...AUTOMOBILE PARTS & SUPPLIES-RETAIL-NEW
1110 **HI PERFORMANCE OF AMERICA**...AUTOMOBILE PARTS & SUPPLIES-WHOLESALE
1110 **S G HOMECARE INC**...HOME HEALTH CARE SERVICES
1110 **SAI WHOLESALE**...TOY & HOBBY GOODS & SUPPLIES MERCHANT WHOLESALERS
1120 **ADT SECURITY SVC**...WILDLIFE SERVICES
1120 **ADT SECURITY SVC**...SECURITY SYSTEMS
1120 **ADT SECURITY SVC**...SECURITY GUARD & PATROL SERVICE
1120 **ADT SECURITY SVC**...BURGLAR ALARM SYSTEMS (WHLS)
1120 **AMERICAN DISTRICT TELEGRAPH CO**...BURGLAR ALARM SYSTEMS & MONITORING-MFRS
1120 **BISHOP JD WHITE MINISTRY**...CHURCHES
1120 **CONTRACTORS TERMITE CONTROL**...TREE SERVICE
1120 **CONTRACTORS TERMITE CONTROL**...PEST CONTROL
1120 **HOMETEAM PEST DEFENSE**...PEST CONTROL
1120 **INLAND COUNTIES LEGAL SVC**...LEGAL SERVICES
1120 **SGI-USA RIVERSIDE CMNTY**...SOCIAL SERVICE & WELFARE ORGANIZATIONS
1120 **WIRE EXPRESS**...TELECOMMUNICATIONS CONTRACTORS
1120 **WIRE EXPRESS**...TELECOMMUNICATIONS CONSULTANTS
1120 **WIRE EXPRESS**...PIPEWHOLESALE
1120 **WIRE EXPRESS**...WIRE (WHLS)
1130 **ADVANCE PRECISION**...WELDING
1130 **ADVANCE PRECISION**...MACHINE SHOPS (MFRS)
1130 **DOMESTIC UNIFORM RENTAL**...UNIFORM SUPPLY SERVICE
1130 **M G LAW INC**...ATTORNEYS
1130 **ORTHOPAEDIC CHIROPRACTIC**...CHIROPRACTORS DC
1130 **PHARMAMERICA**...PHARMACIES
1130 **RASHA PROFESSIONALS**...ARCHITECTURAL ILLUSTRATORS
1130 **SHOWCASE LIMOUSINES**...LIMOUSINE SERVICE
1130 **TRU GREEN**...LAWN & GROUNDS MAINTENANCE
1151 **ANCON TRANSPORTATION**...WAREHOUSING-FIELD
1151 **BARRETTE OUTDOOR LIVING**...OUTDOOR LIVING
1180 **TSR INC**...DATA PROCESSING SOFTWARE
1180 **TSR INC**...COMPUTER SOFTWARE
1180 **UNEMPLOYMENT INSURANCE DEPT**...STATE GOVERNMENT-SOCIAL/HUMAN RESOURCES
1190 **RICHARD SANCHEZ**...RESIDENTIAL
1220 **RIVERSIDE CNTY SHRFFS DPRT**...SHERIFF
1220 **SOCIAL VOCATIONAL SVC**...SOCIAL SERVICE & WELFARE ORGANIZATIONS
1240 **IVR HOME HEALTH EQUIPMENT**...HOME HEALTH SERVICE
1240 **IVR HOME HEALTH EQUIPMENT**...HEALTH CARE ALTERNATIVES
1240 **IVR HOME HEALTH EQUIPMENT**...TRUCKINGCONTRACT HAULING
1240 **IVR HOME HEALTH EQUIPMENT**...SURGICAL INSTRUMENTS-MANUFACTURERS
1240 **MIRACLE METHOD**...BATHTUBS & SINKS-REPAIRING & REFINISHING
1240 **PATH OF LIFE MINISTRIES**...CHURCHES
1260 **NEFF'S UPHOLSTERY & SUPPLIES**...UPHOLSTERERS
1260 **NEFF'S UPHOLSTERY & SUPPLIES**...BOAT COVERS TOPS & UPHOLSTERY
1260 **RON VANBURGER**...NONCLASSIFIED ESTABLISHMENTS
1280 **AFSCME LOCAL 3299**...LABOR ORGANIZATIONS
1280 **D N L CO**...NONCLASSIFIED ESTABLISHMENTS
1280 **HOPE STAFFING**...PERSONNEL CONSULTANTS
1280 **QUALITY STAINLESS CONTROLS INC**...MACHINERY-NEW (WHLS)
1280 **STONE ASSOCIATES INC**...TAX RETURN PREPARATION & FILING
1280 **WE ROOF**...ROOFING CONTRACTORS
1355 **HY TECH TILE INC**...REMODELING & REPAIRING BLDG CONTRACTORS
1355 **HY TECH TILE INC**...TILE-CERAMIC-CONTRACTORS & DEALERS

2016 IOWA AVE
SOURCE: DIGITAL BUSINESS DIRECTORY

800 **PSIP**...BUILDING MAINTENANCE
800 **RUST-OLEUM CORP**...RUST PREVENTIVES & REMOVERS (WHLS)
841 **INLAND EMPIRE ROOFING SUPPLY**...ROOFING EQUIPMENT & SUPPLIES (WHLS)
841 **PENHALL CO**...DEMOLITION CONTRACTORS
841 **PENHALL CO**...CONCRETE BREAKING CUTTING & SAWING & ETC
841 **S R S B R RIVERSIDE CA**...NONCLASSIFIED ESTABLISHMENTS
891 **RELIABLE SERVICE CO**...GENERAL CONTRACTORS
981 **C A CONSTRUCTION**...BUILDING CONTRACTORS
981 **PACIFIC MONARCH NETWORKS**...COMPUTER & EQUIPMENT DEALERS
981 **TAMALE FACTORY**...MANUFACTURERS
1020 **1020 IOWA AVE INC**...BUSINESS MANAGEMENT CONSULTANTS
1020 **AFSCME LOCAL 3299**...CIVIC ORGANIZATIONS
1020 **LABORERS INTERNATIONAL UNION**...LABOR ORGANIZATIONS
1020 **ROBINSON, CAROL SUE**...OTHER INDIVIDUAL & FAMILY SERVICES
1020 **ROBINSON, CAROL SUE**...MARRIAGE & FAMILY COUNSELORS

2016 PALMYRITA AVE
SOURCE: DIGITAL BUSINESS DIRECTORY

1027 **ALLIED STEEL**...WELDING & STEEL FABRICATION
1027 **WEST COAST WIRE STEEL INC**...FABRICATED STRUCTURAL METAL MANUFACTURING
1050 **MBM CORP**...FOOD PRODUCTS (WHLS)
1110 **A M CA TRADE CORP**...TEXTILES-WHOLESALE
1110 **DENT GEAR TOOLS**...TOOLS-NEW & USED
1110 **LASHER, MICHAEL**...MARKET RESEARCH & ANALYSIS
1110 **OTIS SPUNKMEYER INC**...PREPARED FLOUR MIXES & DOUGHS (MFRS)
1110 **OTIS SPUNKMEYER INC**...COOKIES & CRACKERS
1110 **RENEW CREW**...PATIO & DECK CLEANING & RESTORATION
1110 **RUNAMUK ADVENTURES**...RECREATIONAL & VACATION CAMPS (EXCEPT CAMPGROUNDS)
1110 **S G HOMECARE INC**...HOME HEALTH CARE SERVICES
1110 **SAI WHOLESALE**...TOY & HOBBY GOODS & SUPPLIES MERCHANT WHOLESALERS
1110 **WAYNE-DALTON GENIE SALES CTR**...DOORS-GARAGE
1120 **ADT SECURITY SVC**...SECURITY GUARD & PATROL SERVICE
1120 **ADT SECURITY SVC**...SECURITY SYSTEMS
1120 **AMERICAN DISTRICT TELEGRAPH CO**...BURGLAR ALARM SYSTEMS & MONITORING-MFRS
1120 **BISHOP JD WHITE MINISTRY**...CHURCHES
1120 **BISHOP JD WHITE MINISTRY**...RELIGIOUS ORGANIZATIONS
1120 **CONTRACTORS TERMITE CONTROL**...PEST CONTROL
1120 **HOMETEAM PEST DEFENSE**...PEST CONTROL
1120 **SGI-USA RIVERSIDE CMNTY**...SOCIAL SERVICE & WELFARE ORGANIZATIONS
1120 **WIRE EXPRESS**...TELECOMMUNICATIONS CONTRACTORS
1120 **WIRE EXPRESS**...WIRE (WHLS)
1130 **ADVANCE PRECISION**...MACHINE SHOPS (MFRS)
1130 **DOMESTIC UNIFORM RENTAL**...UNIFORM SUPPLY SERVICE
1130 **GEOTECHNICS INC**...ENGINEERS-CONSULTING
1130 **M G LAW INC**...ATTORNEYS
1130 **OIL EXTREME**...OIL & GAS PRODUCERS
1130 **ORTHOPAEDIC CHIROPRACTIC**...CHIROPRACTORS DC
1130 **TRINAM PACKAGING**...PACKAGING MATERIALS-WHOLESALE
1130 **TRU GREEN**...LAWN/GARDEN SERVICES
1130 **TRU GREEN**...LAWN & GROUNDS MAINTENANCE
1130 **TRUGREEN**...LANDSCAPE CONTRACTORS
1151 **ANCON TRANSPORTATION**...WAREHOUSING-FIELD
1151 **BARRETTE OUTDOOR LIVING**...OUTDOOR LIVING
1180 **TSR INC**...COMPUTER SERVICES
1180 **TSR INC**...COMPUTER SOFTWARE
1180 **UNEMPLOYMENT INSURANCE DEPT**...STATE GOVERNMENT-SOCIAL/HUMAN RESOURCES
1190 **EDD DISABILITY INSURANCE**...HEALTH SERVICES
1190 **RICHARD SANCHEZ**...RESIDENTIAL
1220 **SOCIAL VOCATIONAL SVC**...SOCIAL SERVICE & WELFARE ORGANIZATIONS
1240 **AMERICAN CANCER SOCIETY**...SOCIAL SERVICE & WELFARE ORGANIZATIONS
1240 **IVR HOME HEALTH EQUIPMENT**...SURGICAL INSTRUMENTS-MANUFACTURERS
1240 **IVR HOME HEALTH EQUIPMENT**...HOME HEALTH SERVICE
1260 **NEFF'S UPHOLSTERY & SUPPLIES**...BOAT COVERS TOPS & UPHOLSTERY
1260 **NEFF'S UPHOLSTERY & SUPPLIES**...UPHOLSTERERS
1280 **AFSCME LOCAL 3299**...LABOR ORGANIZATIONS
1280 **HOPE STAFFING**...PERSONNEL CONSULTANTS
1280 **QUALITY STAINLESS CONTROLS INC**...MACHINERY-NEW (WHLS)
1280 **REDDI INC**...CONSTRUCTION CONSULTANTS
1280 **STONE ASSOCIATES INC**...TAX RETURN PREPARATION & FILING
1280 **UNIQUE EMPLOYER SOURCE**...PAYROLL PREPARATION SERVICE
1280 **WE ROOF**...ROOFING CONTRACTORS
1355 **HY TECH TILE INC**...TILE-CERAMIC-CONTRACTORS & DEALERS

2012 IOWA AVE
SOURCE: DIGITAL BUSINESS DIRECTORY

841 **PENHALL CO**...*DEMOLITION CONTRACTORS*
891 **RELIABLE SERVICE CO**...*CONSTRUCTION CONSULTANTS*
981 **C A CONSTRUCTION**...*GENERAL CONTRACTORS*
981 **PACIFIC MONARCH NETWORKS**...*VACATION RENTALS*
981 **PACIFIC MONARCH RESORTS INC**...*RESORTS*
1020 **AFSCME LOCAL 3299**...*LABOR ORGANIZATIONS*
1020 **LABORERS INTERNATIONAL UNION**...*LABOR ORGANIZATIONS*
1020 **RIVERSIDE COUNTY GAIN UNIT**...*GOVERNMENT OFFICES-COUNTY*

2012 PALMYRITA AVE
SOURCE: DIGITAL BUSINESS DIRECTORY

1027 **ALLIED STEEL**...*WELDING & STEEL FABRICATION*
1027 **SURFA SLICK LLC**...*NONCLASSIFIED ESTABLISHMENTS*
1050 **MBM CORP**...*FOOD PRODUCTS (WHLS)*
1110 **OTIS SPUNKMEYER INC**...*COOKIES & CRACKERS*
1110 **WAYNE-DALTON CORP**...*DOORS-GARAGE*
1120 **ADT**...*SECURITY CONTROL EQUIP & SYSTEMS-WHLS*
1120 **HOME TEAM PEST DEFENSE**...*PEST CONTROL*
1120 **SGI-USA RIVERSIDE CMNTY**...*COMMUNITY ORGANIZATIONS*
1120 **WIRE EXPRESS**...*TELECOMMUNICATIONS CONTRACTORS*
1130 **GEOTECHNICS INC**...*ENGINEERS-CONSULTING*
1130 **OIL EXTREME**...*OIL & GAS PRODUCERS*
1130 **TRINAM PACKAGING**...*PACKAGING MATERIALS-WHOLESALE*
1151 **ANCON TRANSPORTATION**...*WAREHOUSING-FIELD*
1180 **JOB SERVICE**...*GOVERNMENT-JOB TRAINING/VOC REHAB SVCS*
1180 **UNEMPLOYMENT INSURANCE DEPT**...*STATE GOVERNMENT-SOCIAL/HUMAN RESOURCES*
1220 **SOCIAL VOCATIONAL SVC**...*SOCIAL SERVICE & WELFARE ORGANIZATIONS*
1240 **IVR HOME HEALTH EQUIPMENT**...*SURGICAL INSTRUMENTS-MANUFACTURERS*
1260 **NEFF'S UPHOLSTERY & SUPPLIES**...*UPHOLSTERERS*
1280 **GREENHOUSE FAMILY SVC**...*FOSTER CARE*
1280 **REDDI INC**...*CONSTRUCTION CONSULTANTS*
1355 **HY TECH TILE INC**...*TILE-CERAMIC-CONTRACTORS & DEALERS*

800 **IEM FURNITURE**...*FURNITURE-DEALERS-RETAIL*
800 **KING KONG USA INC**...*IMPORT AND DISTRIBUTE MASSAGE CHAIRS*
841 **PENHALL CO**...*DEMOLITION BUILDINGS*
841 **PENHALL CO**...*DEMOLITION CONTRACTORS*
891 **PACIFIC PAINTBALL INC**...*SPG,RECREATIONAL GD*
981 **BEST VALUE RL EST & HOME LOANS**...*REAL ESTATE AGT,MGR*
981 **C A CONSTRUCTION**...*GEN REMOD 1-FAM HOUSE*
1020 **HUNGRY TIGER DELI**...*RESTAURANTS*
1020 **HUNGRY TIGER DELI**...*QUICK SERV SANDWICH/DELI*
1020 **RIVERSIDE COUNTY GAIN UNIT**...*GOVERNMENT OFFICES-COUNTY*
1020 **RIVERSIDE COUNTY GAIN UNIT**...*EXEC OFFS,STATE-LOCAL*
1020 **SOLUTION PROVIDERS**...*EMPLOYMENT CONTRACTORS-TEMPORARY HELP*
1020 **SOULTION PROVIDERS**...*NONCLASSIFIED ESTABLISHMENTS*

65 total records. Part 1 of 2

1027 **SURFA SLICK**...*CUSTOM METAL FABRICATION WHOL STOCKING DISTRIBUTOR OF S*
1027 **WEST COAST WIRE & STEEL**...*STEEL-BAR, SHEET, STRIP, TUBE ETC (MFRS)*
1027 **WEST COAST WIRE & STEEL**...*FABRICATED STRL MTL*
1050 **MBM**...*TRUCK OPERATOR-NONLOCAL WHOL GROCERIES WHOL MEATS/PRODU*
1050 **MBM CORP**...*FOOD PRODUCTS (WHOLESALE)*
1050 **MBM CORP**...*WHL GEN GROCERIES*
1110 **CLOSET FACTORY**...*HOUSEFURNISHINGS*
1110 **CLOSET FACTORY**...*CLOSET ACCESSORIES-MANUFACTURERS*
1110 **DALTON WAYNE OF RIVERSIDE**...*DOORS-GARAGE*
1110 **JUMP FOR FUN**...*PARTY SUPPLIES*
1110 **OTIS SPUNKMEYER COOKIES**...*QUICK SERV SNACK/COOKIE/DRN*
1110 **OTIS SPUNKMEYER COOKIES**...*COOKIES & CRACKERS*
1110 **QUALITY SHUTTERS**...*INTERIOR DECORATORS DESIGN & CONSULTANTS*
1110 **VALLEY WESTERN DISTRIBUTORS**...*WHOL HOMEFURNISHINGS*
1110 **WAYNE DALTON CORP**...*DOORS*
1120 **ADT**...*GUARD & PATROL SERV*
1120 **ADT SECURITY SERVICES INC**...*ELECTRIC ALARMS*
1120 **ADT SECURITY SERVICES INC**...*SECURITY SYSTEMS SERVICE*
1120 **ADT SECURITY SVC**...*SECURITY CONTROL EQUIP & SYSTEMS-WHOL*
1120 **AMERICAN DISTRICT TELEGRAPH CO**...*SECURITY CONTROL EQUIP & SYSTEMS-WHOL*
1120 **HOMETEAM PEST DEFENSE**...*PEST CONTROL SVS*
1120 **HOMETEAM SVC**...*PEST CONTROL*
1120 **INLAND COUNTIES LEGAL SVC**...*ATTORNEYS*
1120 **SGI-USA RIVERSIDE COMM**...*RELIGIOUS ORGANIZATIONS*
1120 **SGI-USA RIVERSIDE COMM**...*RELIGIOUS ORGANIZ*
1120 **WIRE EXPRESS**...*TELECOMMUNICATIONS CONTRACTORS*
1120 **WIREXPRESS**...*ELECTRICAL WORK*
1130 **GEOTECHNICS INC**...*CONSULTING ENGINEER*
1130 **GEOTECHNICS INC**...*ENGINEERS-CONSULTING*
1130 **HILL-ROM CO**...*MEDICAL MANAGEMENT CONSULTANTS*
1130 **HILL-ROM COMPANY INC**...*MFG HOSPITAL FURNITURE AND BEDS*
1130 **HOME TEAM PEST DEFENSE**...*PEST CONTROL SVS*
1130 **NAVIS PACK & SHIP CTR**...*PACKAGING SYS*
1130 **PHARMAMERICA**...*DRUG,PROPRIETARY STR*
1130 **PHARMAMERICA**...*PHARMACIES*
1130 **PHARMERICA INC**...*RET DRUGS/SUNDRIES*
1130 **SEAHAWK DESIGNS**...*IMPORTERS*
1130 **SHOWCASE LIMOUSINES**...*LIMO RENT WITH DRIVER*
1130 **SIMON WONG ENGINEERING INC**...*CONST,CIVIL ENGINEERS*
1130 **TRU GREEN CHEM LAWN**...*LAWN & GROUNDS MAINTENANCE*
1130 **TRU GREEN CORP**...*LAWN & GARDEN SVS*
1130 **TRUGREEN LANDCARE LLC**...*LAWN/GARDEN SERVICES*
1151 **ANCON TRANSPORTATION**...*HAULING OF HAZARDOUS WASTE MATERIALS AND STEEL*
1151 **ANCON TRANSPORTATION**...*GENL WHSG, STORAGE*
1180 **EMPLOYMENT DEVELOPMENT DEPT**...*FINANCE, TAXATION, AND MONETARY POLICY, NSK*
1180 **JOB SERVICE**...*JOB TRAINING,REL SV*
1180 **JOB SERVICE**...*GOVERNMENT-JOB TRAINING/VOC REHAB SVCS*
1180 **UNEMPLOYMENT INSURANCE DEPT**...*SOCIAL/HUMAN SERVS*
1220 **RIVERSIDE CNTY OF SHRFFS DPRT**...*POLICE PROTECTION*
1220 **SOCIAL VOCATIONAL SVC**...*SOCIAL SERVICE & WELFARE ORGANIZATIONS*
1220 **SOCIAL VOCATIONAL SVC**...*SOCIAL SERVICES*
1240 **AMERICAN CANCER SOCIETY**...*HEALTH SERVICES NEC*
1240 **AMERICAN CANCER SOCIETY**...*ASSOCIATIONS*
1240 **IBR HOME HEALTH EQUIPMENT**...*MEDICAL EQUIP,SUPPS*
1240 **IVR HOME HEALTH EQUIPMENT**...*HOME HEALTH & HEALTH CARE EQUIPMENT*
1240 **IVR HOME HEALTH EQUIPMENT**...*SURGICAL,MED INSTRS*
1240 **ROTECH HEALTH CARE**...*HEALTH SERVICES*
1260 **NEFFS UPHOLSTERY**...*UPHOLSTERY WORK*
1280 **GREENHOUSE FAMILY SVC**...*SOCIAL SERVICE & WELFARE ORGANIZATIONS*
1280 **GREENHOUSE FAMILY SVC**...*SOCIAL SERVICES*
1280 **KIRBY SALES & SERVICE**...*RET HOUSEHOLD APPLIANCES*
1280 **PACIFIC TRUCK INSURANCE BROKER**...*INSUR AGTS,BRKS,SVS*
1280 **PRIMARY CARE HOME HEALTH**...*HOME HEALTH SERVICE*

2008 PALMYRITA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

Part 2 of 2

1355 **HY TECH TILE INC...** *TERRAZZO, TILE WORK*

2003 IOWA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

800 **IEM FURNITURE...** *VIDEO AND AUDIO EQUIPMENT*

841 **PENHALL CO**

1020 **HOLLAND & ASSOC INC...** *COMPUTER SOFTWARE DEVELOPMENT AND APPLICATIONS*

1020 **HUNGRY TIGER DELI...** *STEAK AND BARBECUE RESTAURANTS*

1020 **RIVERSIDE COUNTY ADULT SVC**

1020 **RIVERSIDE COUNTY GAIN UNIT**

2003 PALMYRITA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

1027 **WEST COAST WIRE & STEEL**...*SOLDERING TOOLS*
1050 **MBM CORP**
1110 **CLOSET FACTORY**
1110 **DALTON WAYNE OF RIVERSIDE**...*LUMBER PRODUCTS*
1110 **JUMP FOR FUN**...*PARTY SUPPLIES RENTAL SERVICES*
1110 **OTIS SPUNKMEYER COOKIES**
1120 **ADT SECURITY SVC**...*LIGHTING FIXTURES*
1120 **AMERICAN DISTRICT TELEGRAPH CO**...*LIGHTING FIXTURES*
1120 **INLAND COUNTIES LEGAL SVC**
1120 **LEGAL AID**
1120 **SGI-USA RIVERSIDE COMM**
1120 **WIRE EXPRESS**
1130 **ASSURED TRANSPORTATION-DLVRY**
1130 **PHARMAMERICA**
1130 **TRUGREEN CHEMLAWN**...*PLANTING, PRUNING, AND TRIMMING SERVICES*
1151 **ANCON TRANSPORTATION**
1240 **AMERICAN CANCER SOCIETY**...*GROWERS' ASSOCIATIONS*
1280 **IMAGE PRINTING SVC**
1280 **KIRBY CO**

2001 IOWA AVE

SOURCE: HAINES

725 **FOGLIASSO STEVEN**...
725 **RIVERSD**...
725 **WELDING&BLACKSMITHING**...
751 **LYNCH THOMAS**...
800 **D¥D¥D¥D¥**...
841 **CALIF CAREER SCHOOLS**...
841 **INLAND CITIES EXPRESS INC**...
841 **INLAND TRUCK REPAIR**...
841 **LANDSTAR T L C**...
841 **SACKETT WILLIAM**...
1020 **GOODWILL CENSU 2000**...
1020 **HUNGRY TIGER DELI**...
1020 **INLAND CAREER CENTER A DIV**...
1020 **RIVERSD CO SOCL SV ADLT PRTCTV**...
1020 **RIVERSD CO SOCL SV GAIN UNIT**...
1040 **L I T E 927 FM RADIO**...
1040 **PAC MONARCH RESORTS INC**...

2001 PALMYRITA AVE

SOURCE: HAINES

990	U A R C O INCORPORATED PLANT...
990	ZEPEDA ALLREDO...
1025	XXXX...
1027	SURFA SLICK...
1027	WEST COAST WIRE&STEEL LLC...
1050	M B M CORP...
1110	JUMP FOR FUN...
1110	OTIS SPUNKMEYER INC...
1110	VALLEY WESTERN DSTRBTRS INC...
1120	AMER DISTRICT TELEGRAPH CO...
1120	INLAND COUNTIES LEGAL SERVICES...
1120	LEGAL AID...
1120	S G IUSA RIVRSD COMMUNITY CTR...
1120	WIRE EXPRESS...
1130	PHARMERICA...
1130	TRUGREEN CHEMLAWN...
1151	ANCON TRANSPORTATION...
1180	XXXX...
1200	XXXX...
1220	D&N MARKETING...
1240	AMER CANCER SOCIETY...
1240	CANCER-AMER CANCER SOC...
1240	GENL TRADE&TECHNOLOGY...
1240	HIGHLANDS ELECTRIC...
1280	IMAGE PRINTING SEAVICES...
1280	KIRBY SALES&SERVICE...
1492	JEGLUM JERRY...
1492	LOTSHAW AIR CND CO...
1492	OPERATION BLESSING...

1996 IOWA AVE

SOURCE: HAINES

725	RIVRSD WELDING...
751	XXXX...
800	SWEETHEART CUP...
800	SWEETHEART CUP CO...
841	CHRIS CRANE ENTPRS...
841	INLAND TRUCK REPAIR...
841	TRAILBLAZER TRNSPTN...
1020	RIVRSD CO SOCL GAIN...
1105	XXXX...

1996 PALMYRITA AVE

SOURCE: HAINES

990	U A R C O INC PLANT...
1025	XXXX...
1027	SURFA SLICK...
1027	WEST CST WIRE&STEEL...
1050	M B M CORP...
1110	OTIS SPUNKMEYER INC...
1110	OTIS SPURKMEYER...
1120	A D T SECURITY SYST...
1120	AMER DIST TELEGRAPH...
1120	CA ST EMP INS CLMS...
1130	CLOSET FACTORY THE...
1180	CA ST EMP INS CLMS...
1180	CA ST EMP TAX INFO...
1180	CA ST TAXES EMPLY...
1200	XXXX...
1220	D&N MARKETING...
1240	A I D S PROJECT...
1240	INLAND AIDS PROJECT...
1240	INLAND CO LEGAL SVS...
1240	INLAND CO LGL SR...
1240	LEGAL AID...
1260	RIVASD CO RGSTR VTR...
1280	D C ELECTRONICS 2...
1280	DE ANZA TOOL&MFG...
1492	LOTSHAW AIR CND CO...
1492	OPERATION BLESSING...

1991 IOWA AVE

SOURCE: HAINES

725	RIVRSD WELDING...
751	XXXX...
800	FORT HOWARD CUP...
841	GRIM SHANE...
841	INLAND CITIES TRUCK...
841	LION FREIGHT LINES...
841	ORGANIC TRANSPORT ...
841	PAC COAST TRANSPRTN...
841	TRAILBLAZER TRANS...
915	XXXX...
1020	PETES SANDWICH SHOP...
1020	RIVRSD CO SOCL CHLD...
1020	RIVRSD CO SOCL GAIN...
1111	METAL SUPPLY INC...

1991 PALMYRITA AVE

SOURCE: HAINES

990	U A R C O INC PLANT...
1025	XXXX...
1027	SURFA CLICK...
1027	WEST CST WIRE&STEEL...
1050	M B M CORP...
1200	A D T SCRTY SYSTEMS...
1260	RIVRSD CO RGSTR VTR...
1280	ADAMS LEROY W...
1280	AMER DIST TELEGRAPH...
1280	DE ANZA TOOL&MFG...
1280	WESTWAY PRPRTY INC...
1492	CRISLER ROBERT C...
1492	JEGLUM PIPE&SPLY CO...
1492	POTTER JAIME L...

1986 IOWA AVE

SOURCE: HAINES

725	RIVRSD WELDING...
751	XXXX...
800	LILY TULIP ACCTNG...
800	LILY TULIP INC...
800	LILY TULIP INC ENGR...
800	LILY TULIP INC MNTC...
800	LILY TULIP INC PRCH...
800	LILY TULIP INC PSNL...
800	LILY TULIP INC SKIP...
800	LILY TULIP INC SV...
800	LILY TULIP INC TRFC...
841	FAIRFIELD AMERICAN...
841	INLAND CITIES EXPRS...
841	INLAND CITIES SP SV...
841	INLAND CITIES TRUCK...
1234	XXXX...

1986 PALMYRITA AVE

SOURCE: HAINES

990	U A R C O INC...
1025	RELIANCE FABRICATRS...
1025	RELIANCE SHEET METL ...
1492	JEGLUM PIPE&SPLY CO...

1984 IOWA AVE

SOURCE: HAINES

725	RIVRSD WELDING ...
725	WOLFGANG WLDNG&REP...
751	XXXX...
800	BUILDING...
800	LILY TULIP INC ACTG...
800	LILY TULIP INC ENGR...
800	LILY TULIP INC MNTC...
800	LILY TULIP INC PRCH...
800	LILY TULIP INC PSNL...
800	LILY TULIP INC SHIP...
800	LILY TULIP INC SV...
800	LILY TULIP INC TRFC...
800	LILY TULIP ING...
800	TILY TULIP INC EMPL...
841	FAIRFIELD AMERICAN...
841	INLAND CITES TRUCK...
841	INLAND CITIES EXPRS...
841	INLAND CITIES SP SV...
1234	XXXX...

1984 PALMYRITA AVE

SOURCE: HAINES

990	U A R C O INC...
1025	RELIANCE FABRICATRS...
1492	JEGLUM PIPE&SPLY CO...
1492	JEGLUM PIPE&SUPPLY...

1977 IOWA AVE

SOURCE: HAINES

725	RIVERSD WELDING...
725	WOLFGANG WLDNG&REPR...
751	XXXX...
800	LILY DIV ACCOUNTING...
800	LILY DIV BLDG ENGR...
800	LILY DIV CUSTMR SRV...
800	LILY DIV MAINTNCE...
800	LILY DIV PERSONNEL...
800	LILY DIV PURCHASING...
800	LILY DIV SHIPPING...
800	LILY DIV TRAFFIC...
800	LILY DIVISION...
841	INLAND CITIES EXPRS ...
841	SACKETT TRANSPORTN...
841	TIME DC FREIGHT INC...
1234	XXXX...

1977 PALMYRITA AVE

SOURCE: HAINES

990	XXXX...
1025	DAVIS WALKER CORP...
1492	JEGLUM PIPE&SPLY CO...
1492	JEGLUM PIPE&SUPPLY...

1971 IOWA AVE

SOURCE: HAINES

725	WOLFGANG G C...
751	RIVERSIDE GALVANZNG...
800	LILY TULIP DIV...
841	INLAND CITIES EXPRS...
841	SACKETT TRANSPORTN...
1234	MARLBOROUGH ASSOCTS...

1971 PALMYRITA AVE

SOURCE: HAINES

990 **UARCO INC PLANT...**
1540 **LANDROCHE ESTHER...**

1966 IOWA AVE

SOURCE: LUSKEYS

725 **WOLFGANG GC OFC WELDING & GENERAL REPAIR...**
2037 **JONES LAURENCE S (MARGARET) H ENTOMOLOGIST US DEPT OF AGRICULTURE...**

1966 PALMYRITA AVE

SOURCE: LUSKEYS

975	(JAS E & MRS DOROTHY SMITH) ...
975	GENERAL STEEL & WIRE...
1540	MOORE CHAS C H RETIRED...

1951 IOWA AVE

SOURCE: LA DIRECTORY CO

725	VACANT...
751	PEERLESS SPRAY CHEML CORP...
790	VACANT...
806	BEST C W ...
990	PURVINE F L ...
1189	HOLEMAN J B ...

1951 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

987	**NIELSEN G P...**
987#REAR	**VACANT...**
1510	**STONE C A ...**

1945 IOWA AVE

SOURCE: LA DIRECTORY CO

600	**LYNCH C E...**
600	**RECORD W C...**
790	**CREWS D A...**
806	**BEST C W...**
810	**ECKWELL OSCAR...**
820	**VACANT...**
1189	**JONES P L...**

1945 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

830	**SELLECK C B...**
1510	**STONE C A...**

1941 IOWA AVE

SOURCE: LA DIRECTORY CO

500	**LAWSON J R...**
790	**CREWS D A...**
806	**BEST C W...**
1090	**KENT R M MRS...**

1941 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

830	**SELLECK CAROL B FRT GROWER...**
1510	**STONE C A ...**

1934 IOWA AVE

SOURCE: LA DIRECTORY CO

600	**LYNCH...**
800	**RUHNU CF ...**
1090	**ROGS CO...**
8111	**KRAEMER MR...**

1934 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

150 **PECK FH ...**
187 **CLAWSON BB ORANGE GROWER...**

1931 IOWA AVE

SOURCE: LA DIRECTORY CO

0 **COUNTY LINE AND LA CADENA DR...**
0 **DILLON WE 0 ...**
801 **STEVENS HA...**
805 **RUHNAN CF 0 ...**
1090 **ROSS CC 0 ...**

1931 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

838 **COLLINS JAS...**
1510 **PECK FH O ...**

1925 IOWA AVE

SOURCE: LA DIRECTORY CO

RANGE NOT LISTED

1925 PALMYRITA AVE

SOURCE: LA DIRECTORY CO

RANGE NOT LISTED

TOPOGRAPHIC MAPS

Project Property:	Dedeaux Palmyrita Riverside 1151 Palmyrita Avenue Riverside CA 92507
Project No:	22-367348.1
Requested By:	Partner Engineering and Science, Inc.
Order No:	22042000887
Date Completed:	April 21, 2022

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

We have searched USGS collections of current topographic maps and historical topographic maps for the project property. Below is a list of maps found for the project property and adjacent area. Maps are from 7.5 and 15 minute topographic map series, if available.

Year	Map Series
1896	15
1898	15
1901	15
1938	7.5
1942	15
1943	15
1953	7.5
1954	15
1967	7.5
1973	7.5
1975	7.5
1980	7.5
2015	7.5
2018	7.5
2021	7.5
2022	7.5

Topographic Map Symbology for the maps may be available in the following documents:

Pre-1947

Page 223 of 1918 Topographic Instructions

Page 130 of 1928 Topographic Instructions

1947-2009

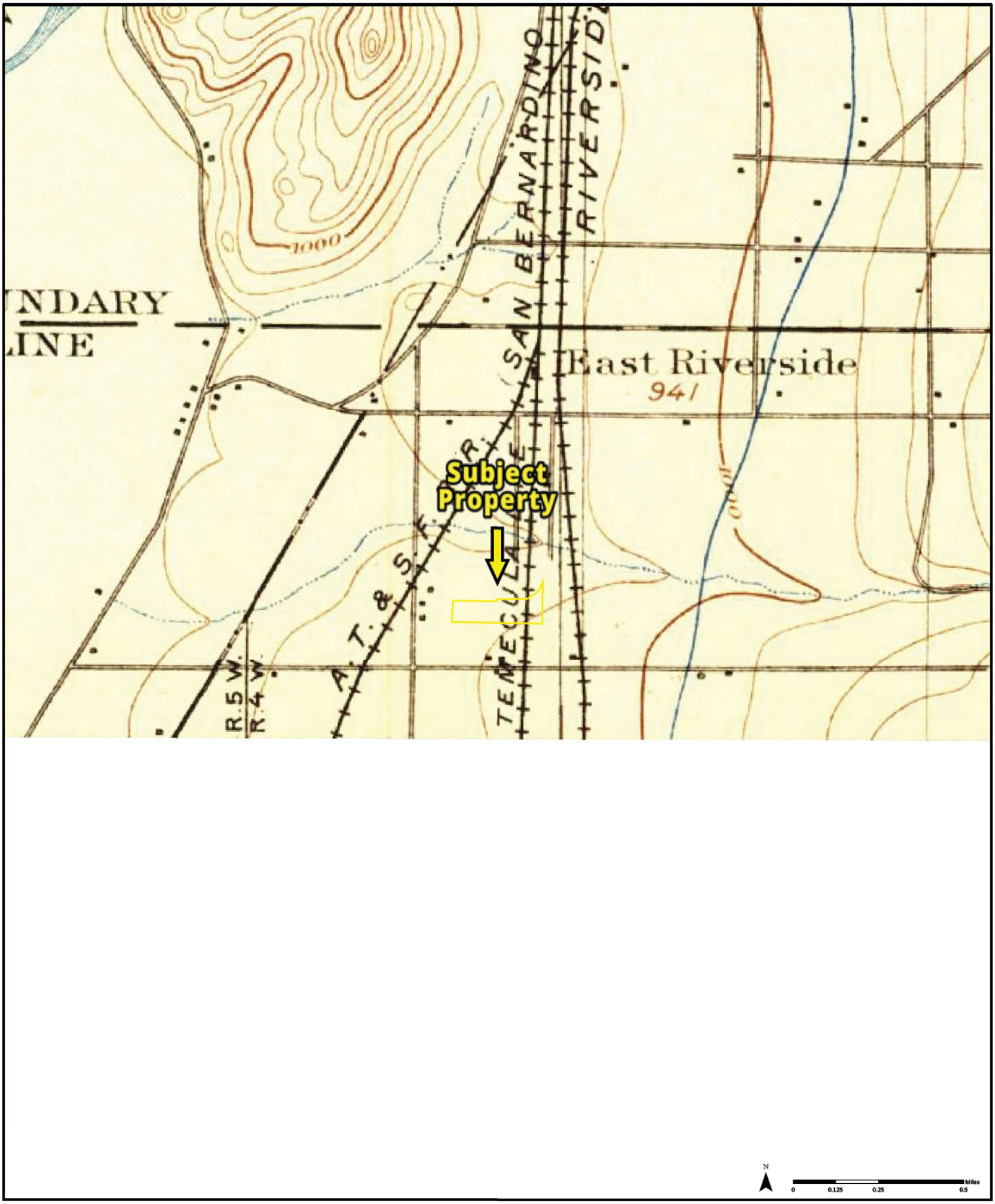
Topographic Map Symbols

2009-present

US Topo Map Symbols

Topographic Maps included in this report are produced by the USGS and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property.

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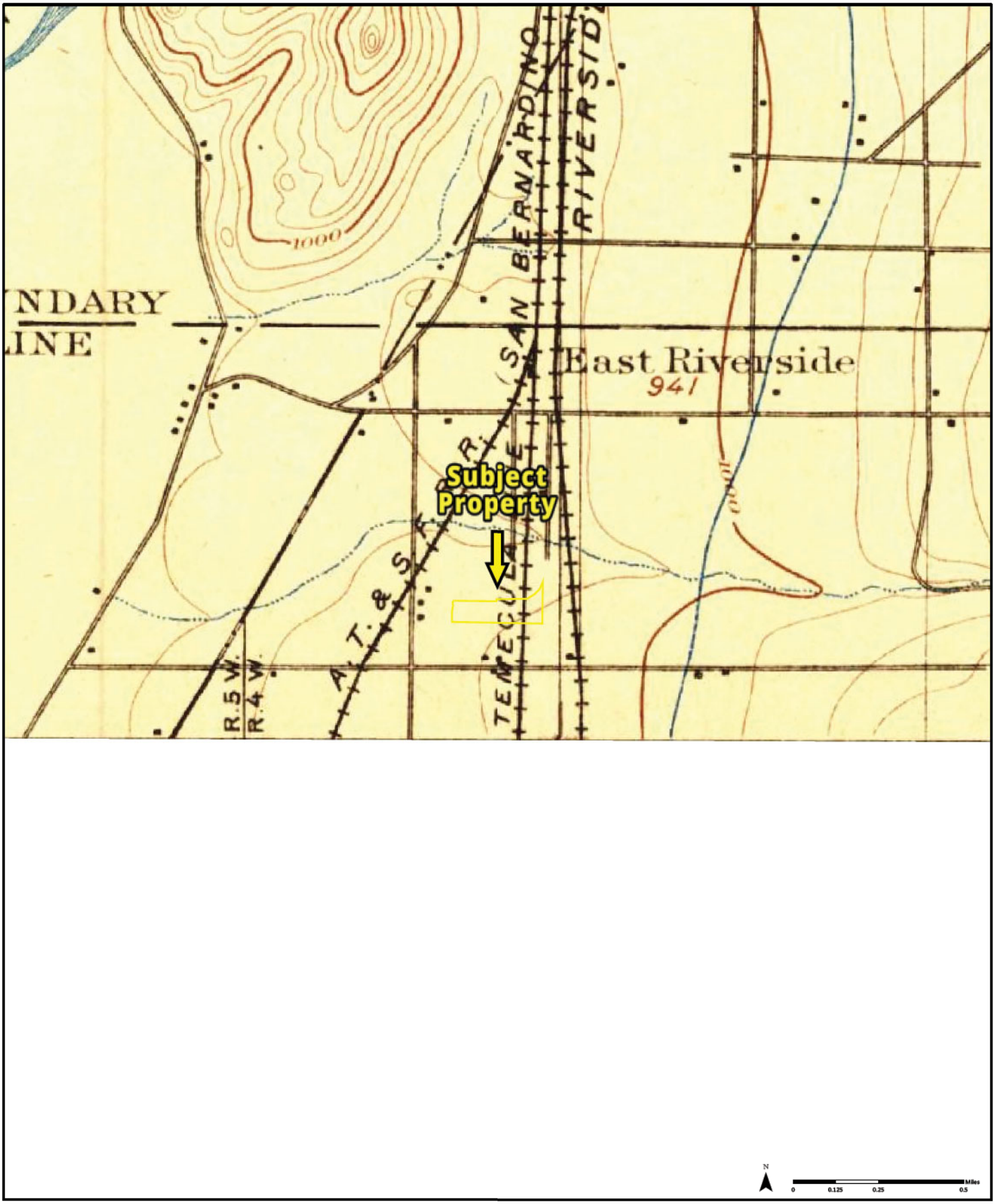
1896

Quadrangle(s): San Bernardino, CA

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER



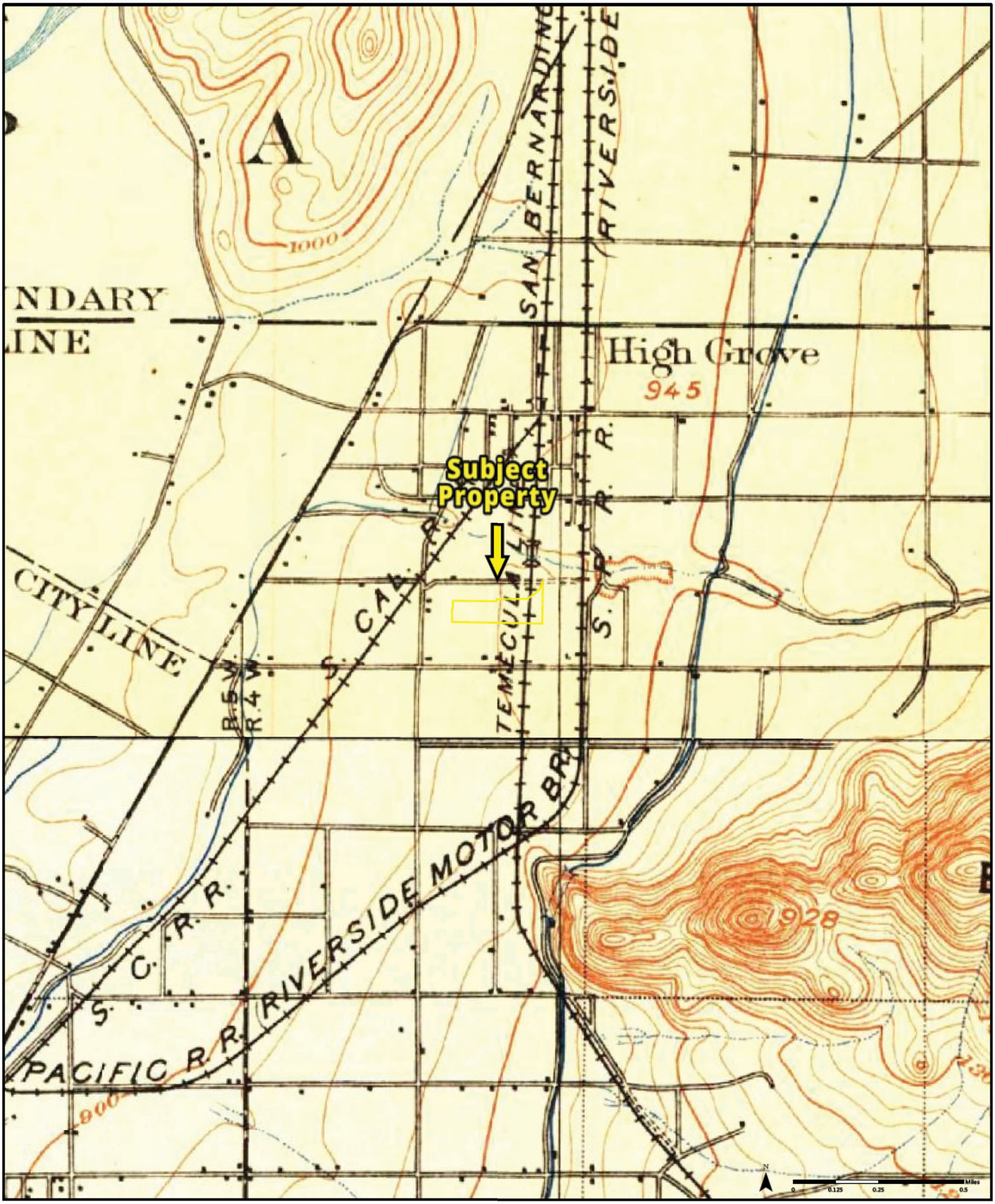
1898

Quadrangle(s): San Bernardino, CA

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER



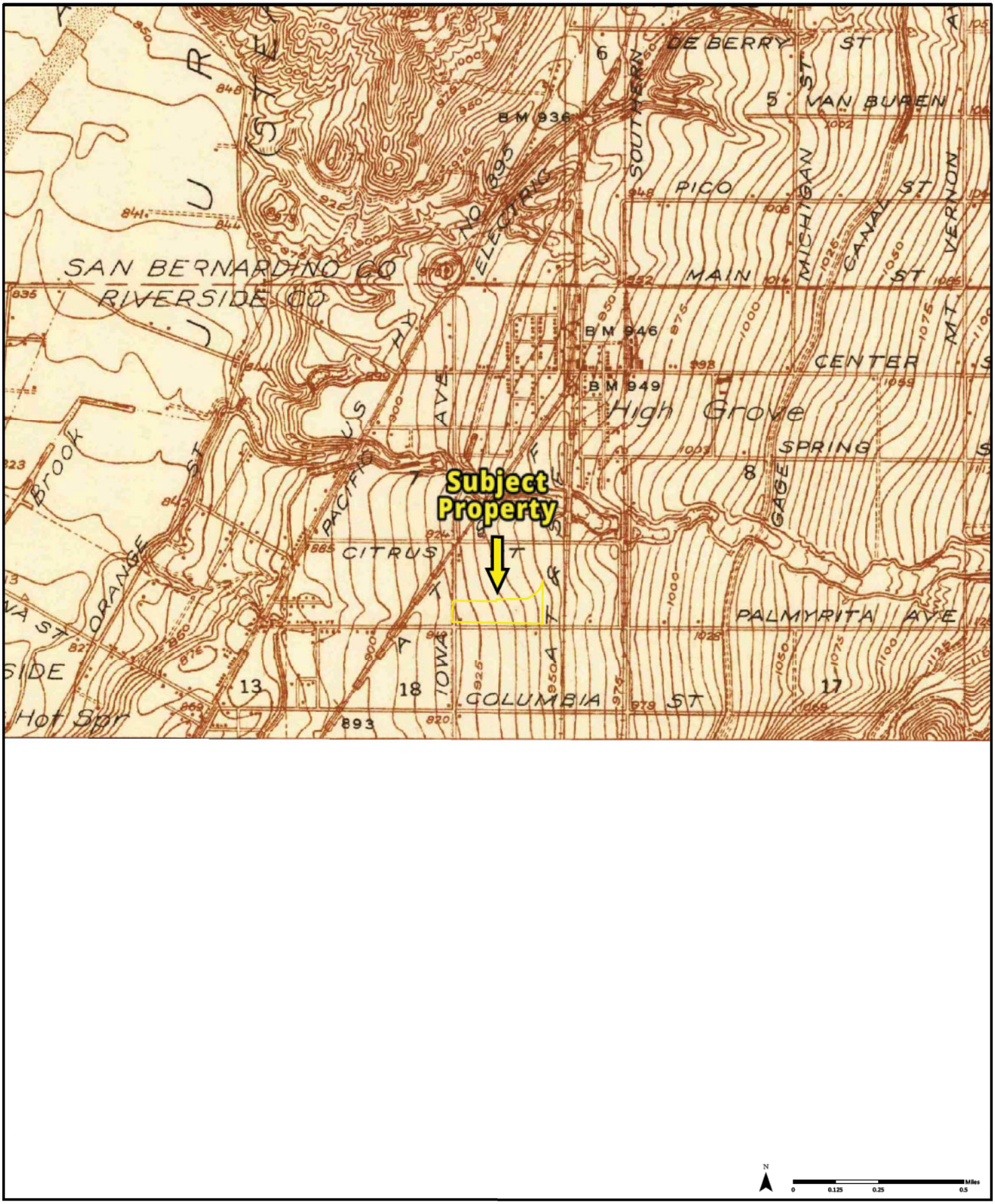
1901

Quadrangle(s): San Bernardino, CA; Riverside, CA

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER



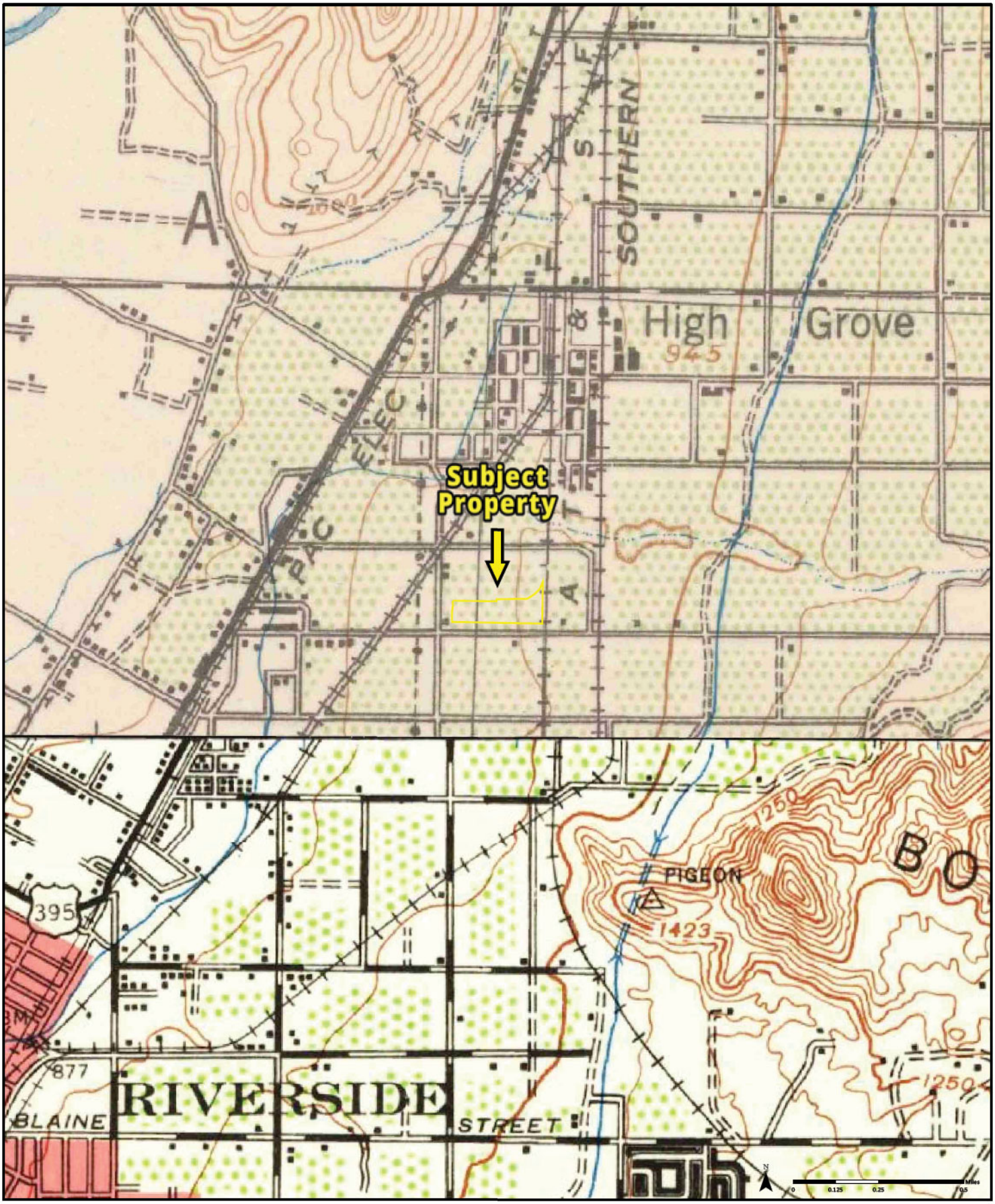
1938

Quadrangle(s): Colton, CA

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



1942

Quadrangle(s): Riverside, CA(1); San Bernardino, CA

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER

Subject Property



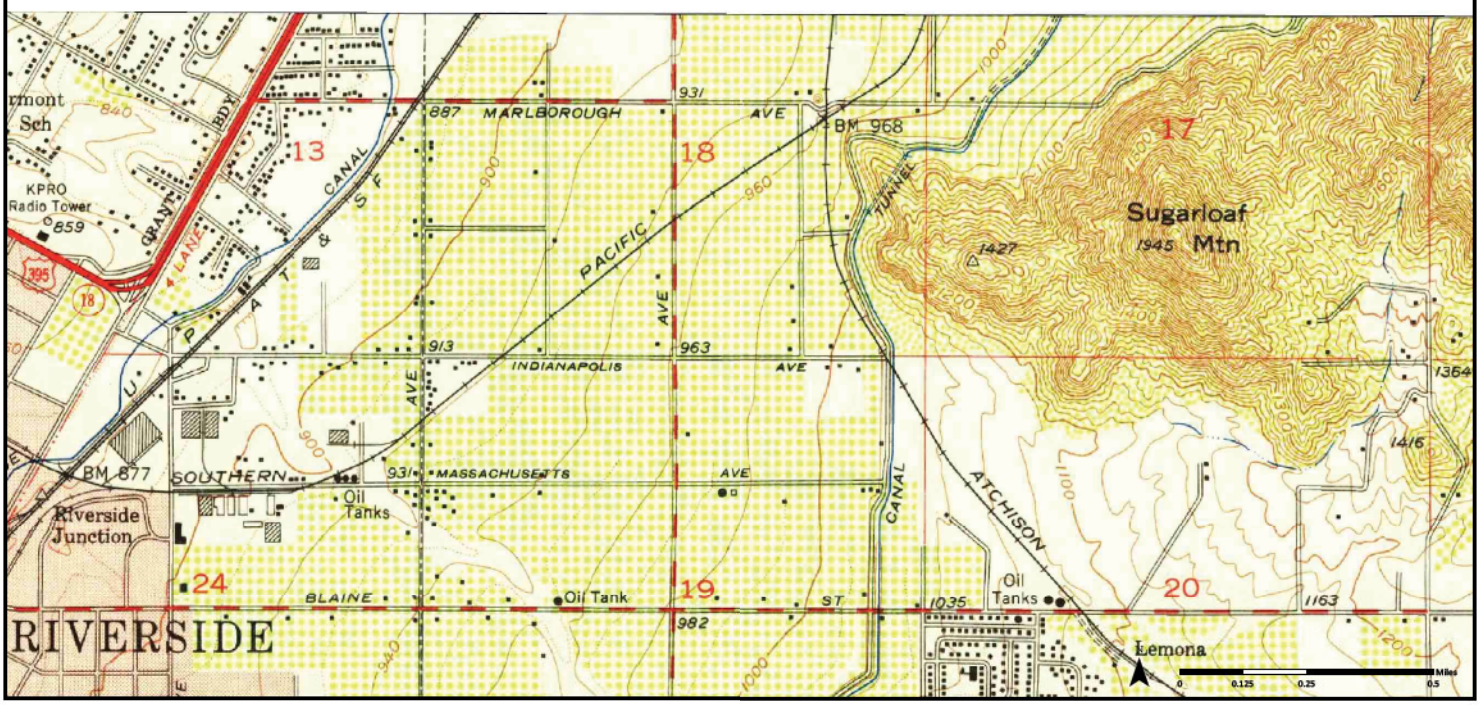
1943 (1) *Aerial Photo Year: 1939*

Quadrangle(s): Riverside, CA(1)

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER



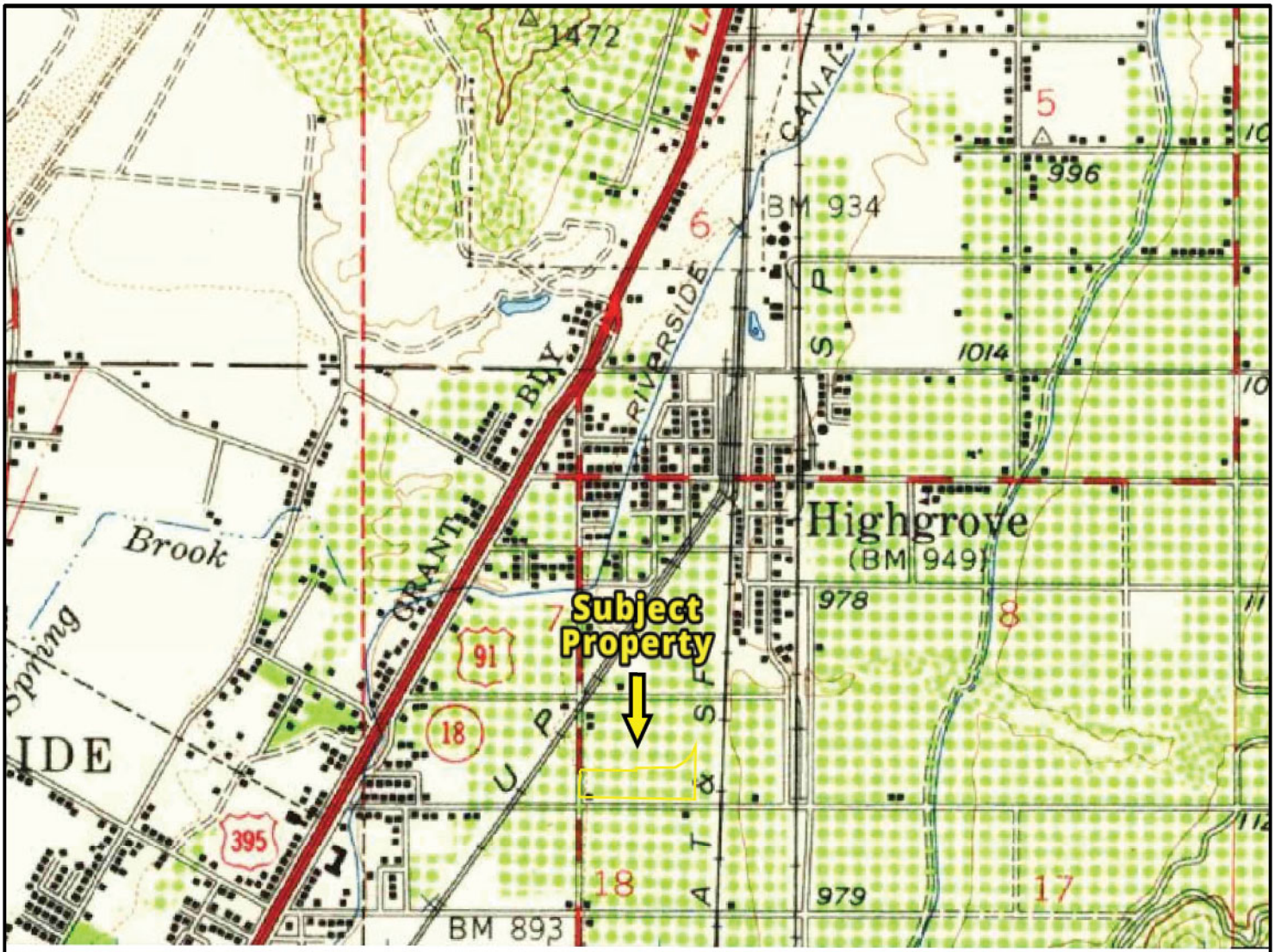
1953 (1) *Aerial Photo Year: 1951*

Quadrangle(s): Riverside East, CA(1)

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



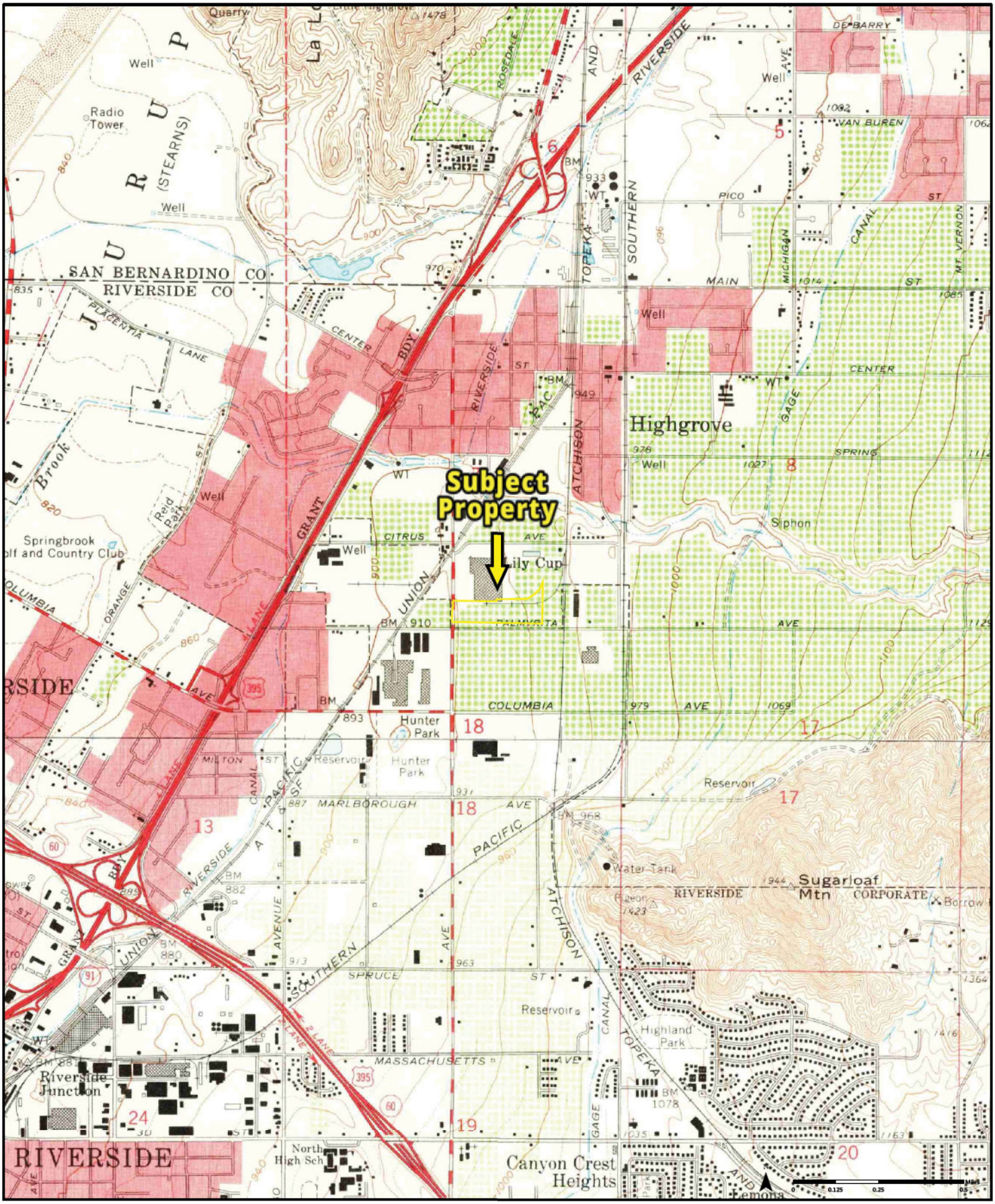
1954 (1) *Aerial Photo Year: 1952*

Quadrangle(s): San Bernardino, CA(1)

Order No. 22042000887

Source: USGS 15 Minute Topographic Map

PARTNER



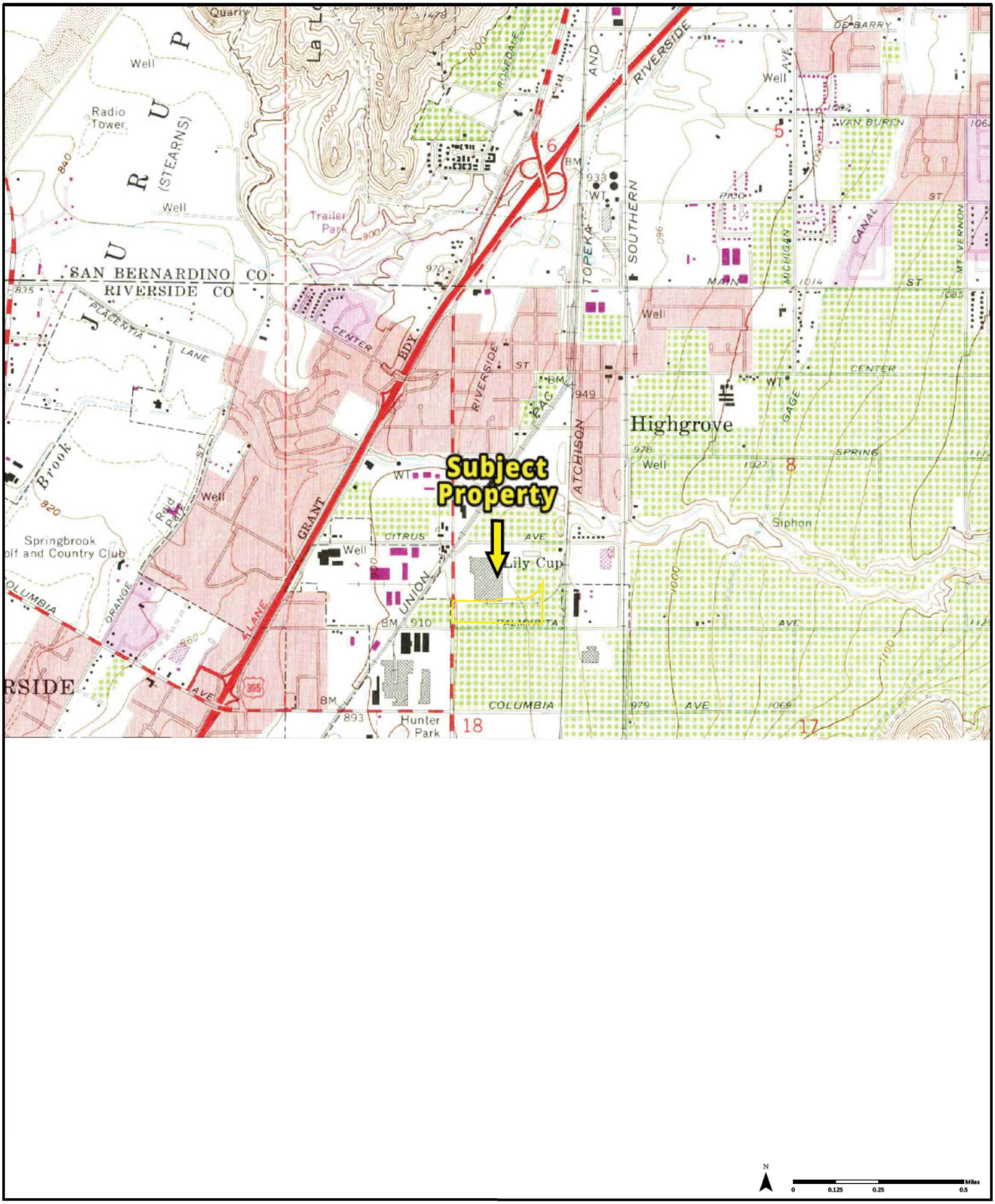
1967 (1) Aerial Photo Year: 1966 (2) Aerial Photo Year: 1966

Quadrangle(s): Riverside East, CA(1); San Bernardino South, CA(2)

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



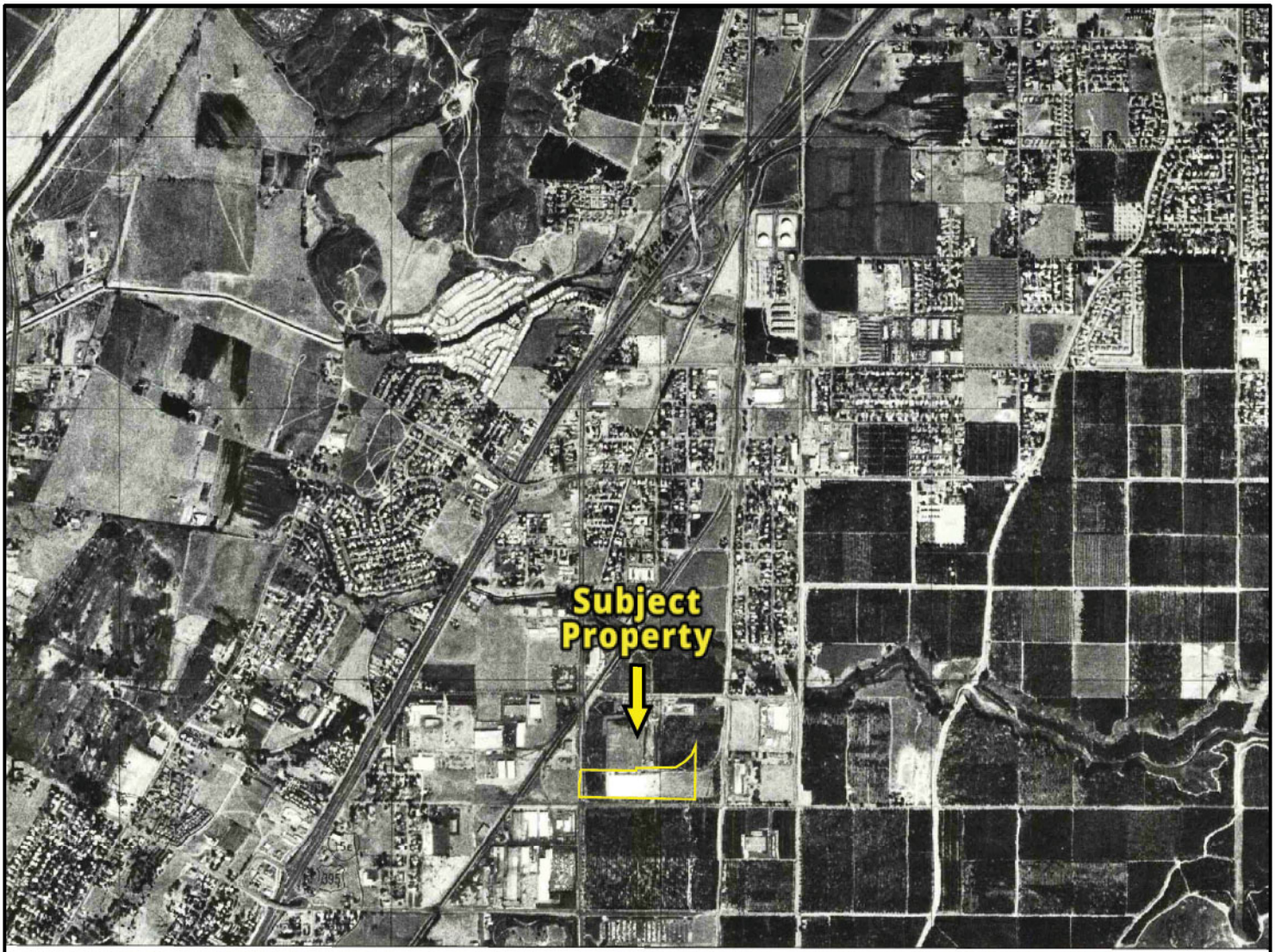
1973 (1)
Aerial Photo Year: 1973
Photo Revision Year: 1973

Quadrangle(s): San Bernardino South, CA(1)

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



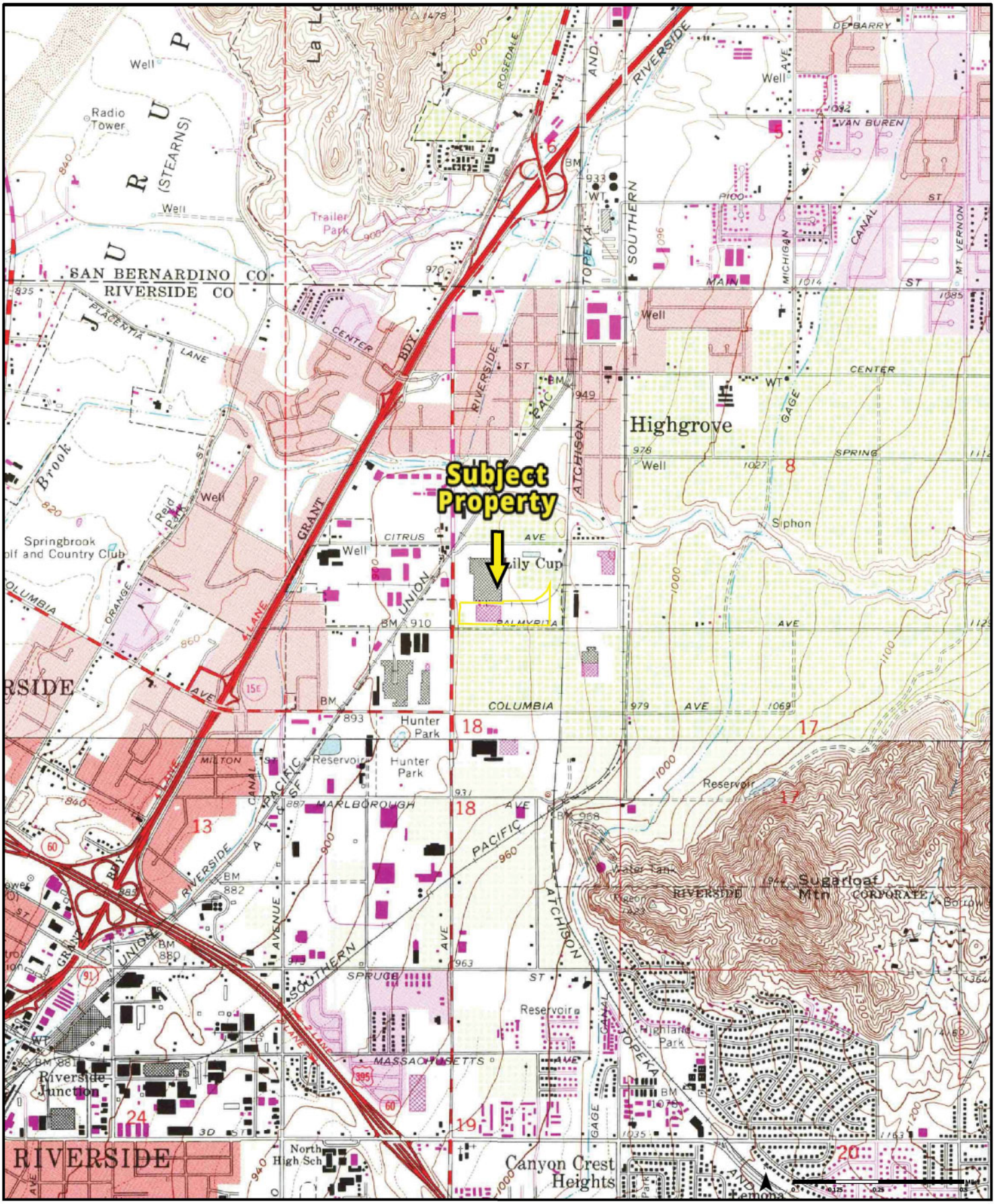
1975 (1) *Aerial Photo Year: 1975*

Quadrangle(s): San Bernardino South, CA(1)

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



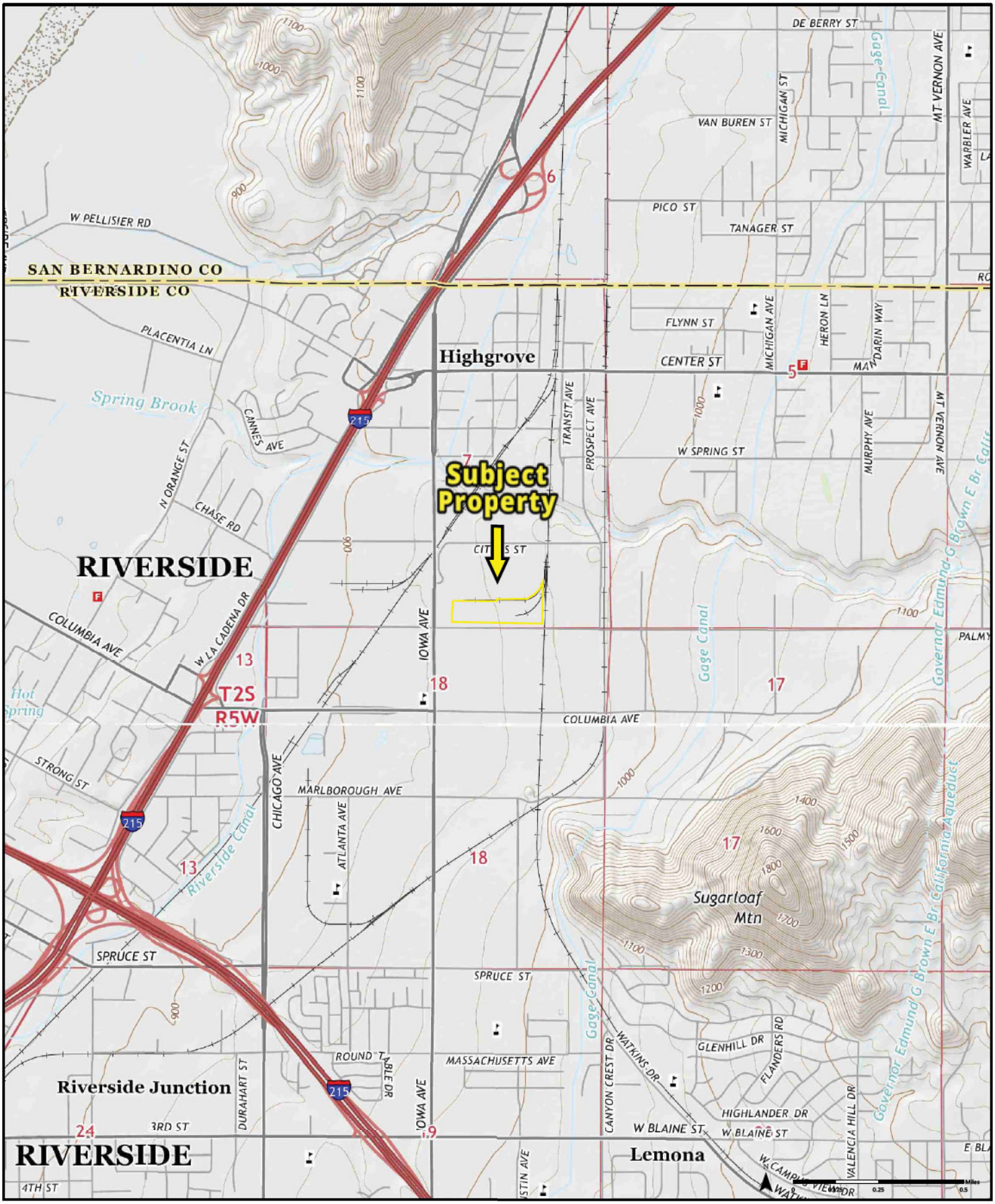
1980 (1) Aerial Photo Year: 1979 Photo Revision Year: 1980 (2) Aerial Photo Year: 1978 Photo Revision Year: 1980

Quadrangle(s): San Bernardino South, CA(1); Riverside East, CA(2)

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



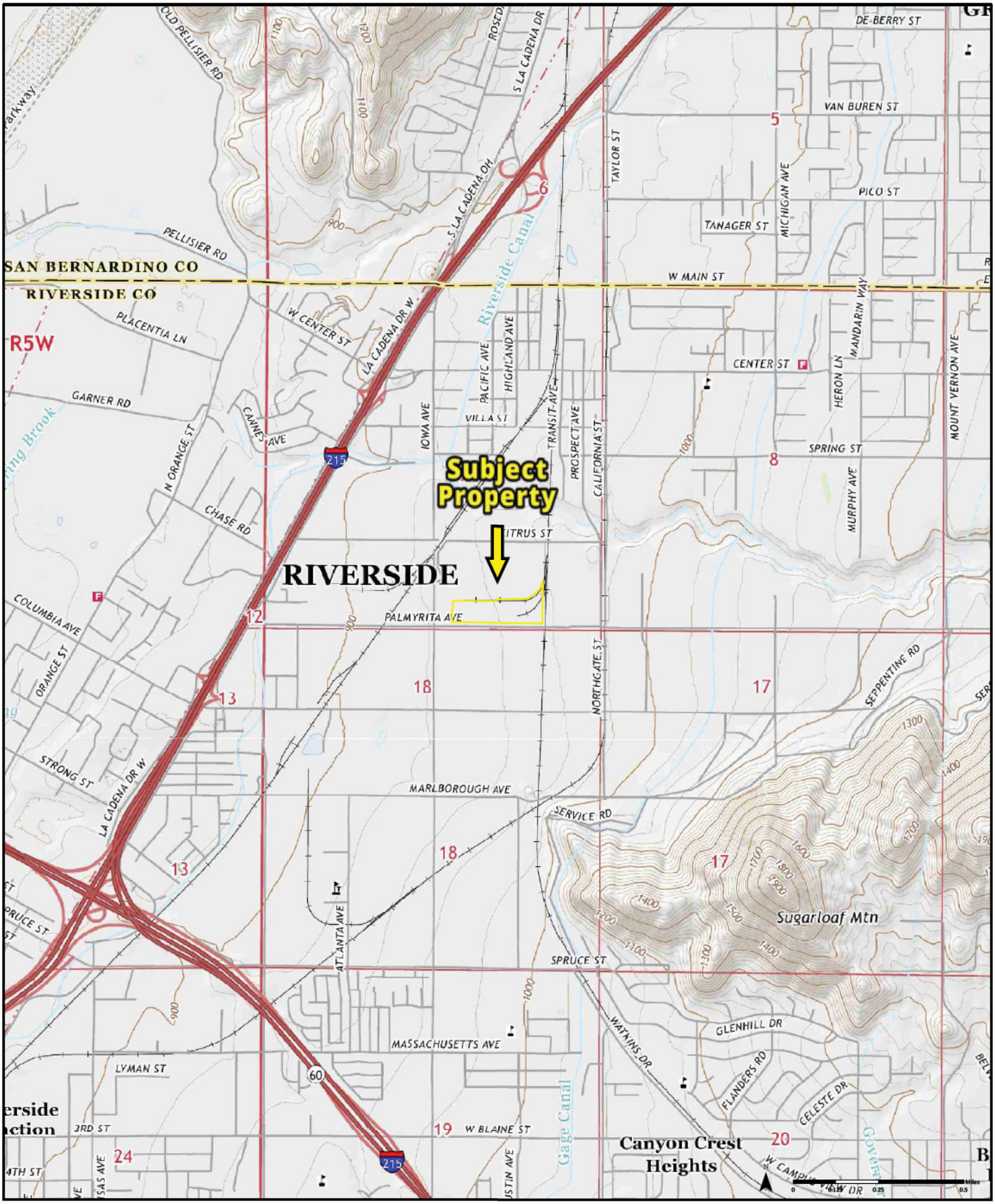
2015

Quadrangle(s): Riverside East, CA; San Bernardino South, CA

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



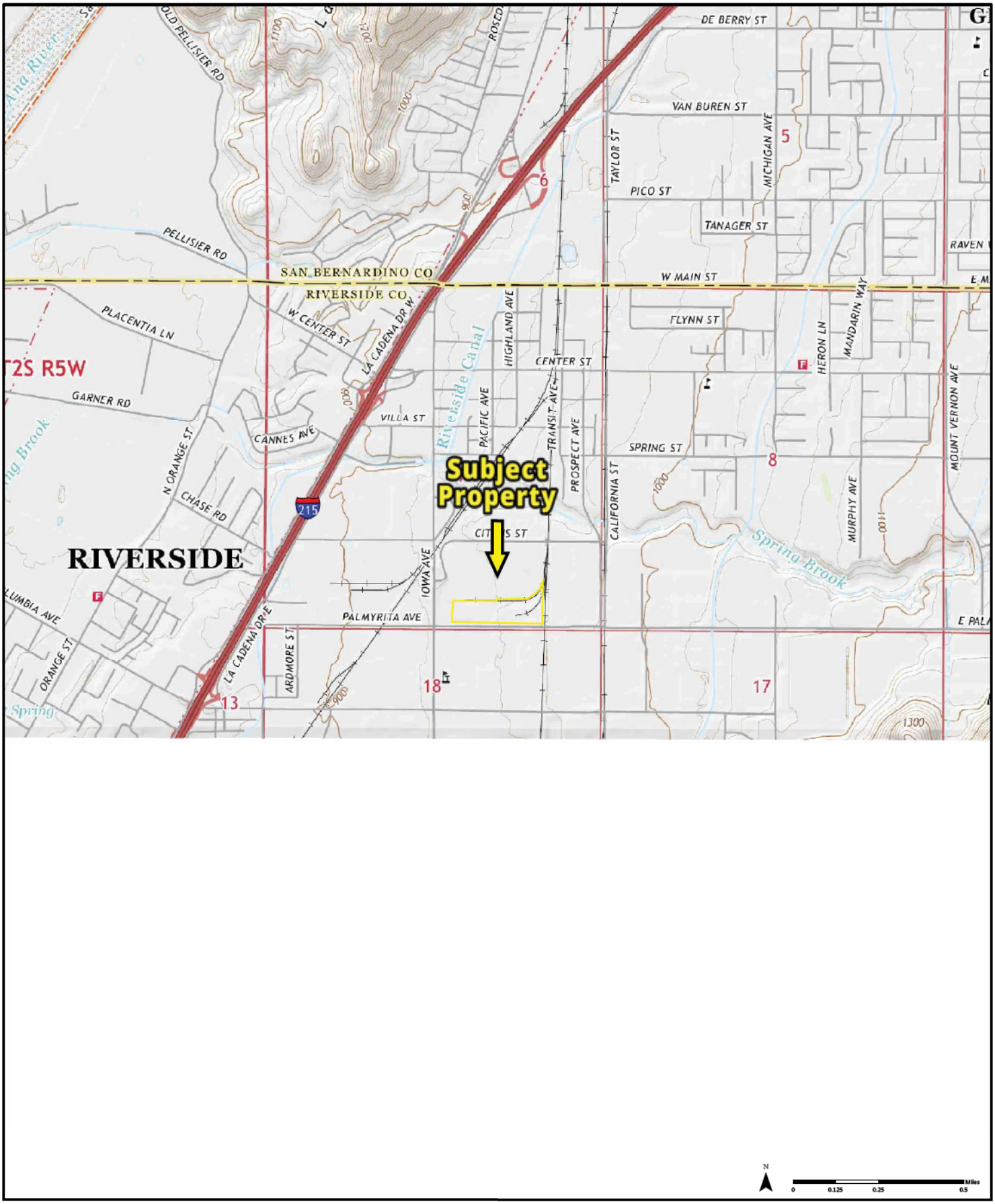
2018

Quadrangle(s): Riverside East, CA; San Bernardino South, CA

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



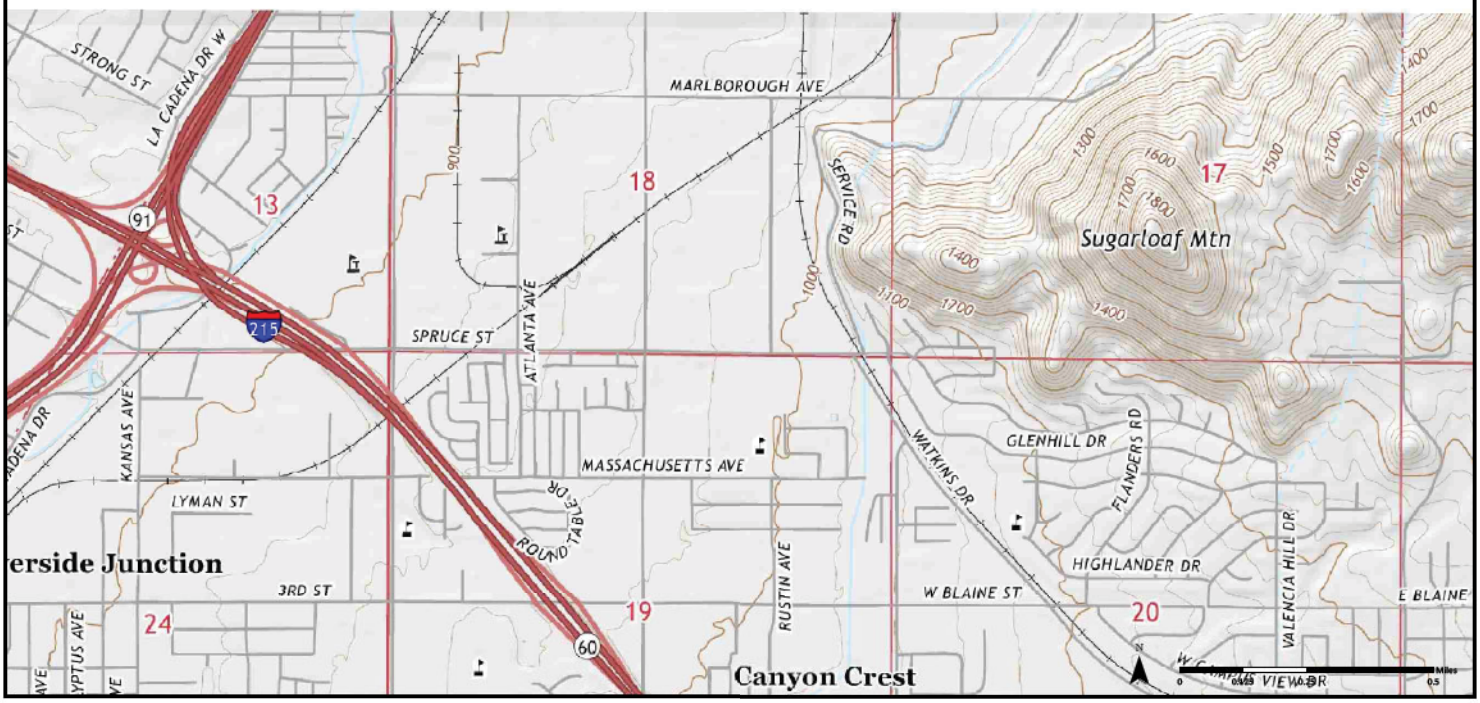
2021

Quadrangle(s): San Bernardino South, CA

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER



2022

Quadrangle(s): Riverside East, CA

Order No. 22042000887

Source: USGS 7.5 Minute Topographic Map

PARTNER

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:	22042000887p
Date Completed:	April 21, 2022
Project Number:	22-367348.1
Project Property:	Dedeaux Palmyrita Riverside 1151 Palmyrita Avenue Riverside CA 92507
Coordinates:	
Latitude:	34.00582445
Longitude:	-117.33659904
UTM Northing:	3762857.79213 Meters
UTM Easting:	468911.778439 Meters
UTM Zone:	UTM Zone 11S
Elevation:	941.27 ft
Slope Direction:	WSW

Topographic Information....2
Hydrologic Information....4
Geologic Information....7
Soil Information....9
Wells and Additional Sources....15
Summary....16
Detail Report....20
Radon Information....66
Appendix....67
Liability Notice....69

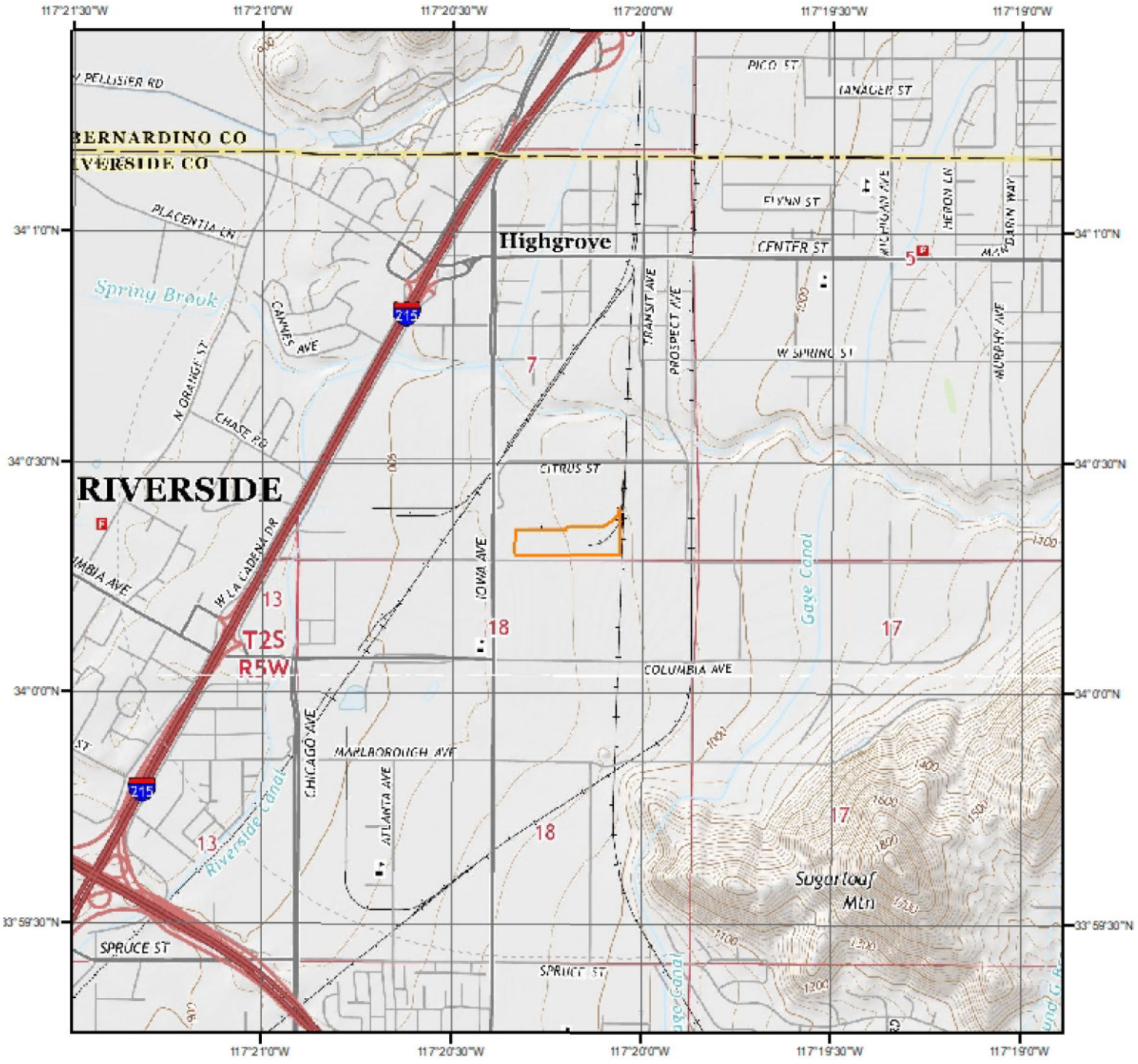
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



Current USGS Topo (2015)

Quadrangle(s): Riverside East,CA; San Bernardino South,CA

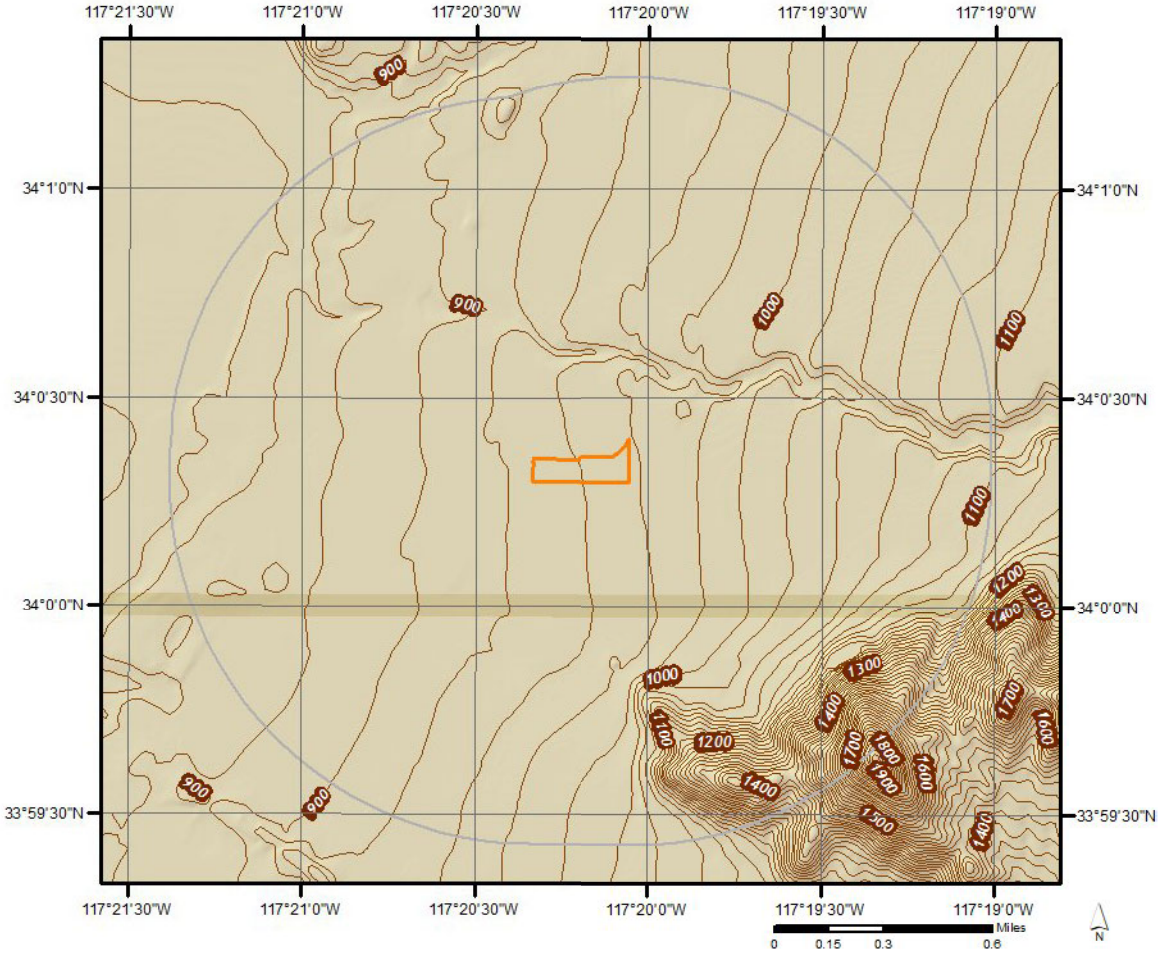
Source: USGS 7.5 Minute Topographic Map

Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	941.27 ft
Slope Direction:	WSW



Hydrologic Information



Wetland

0 0.075 0.15 0.3 Miles

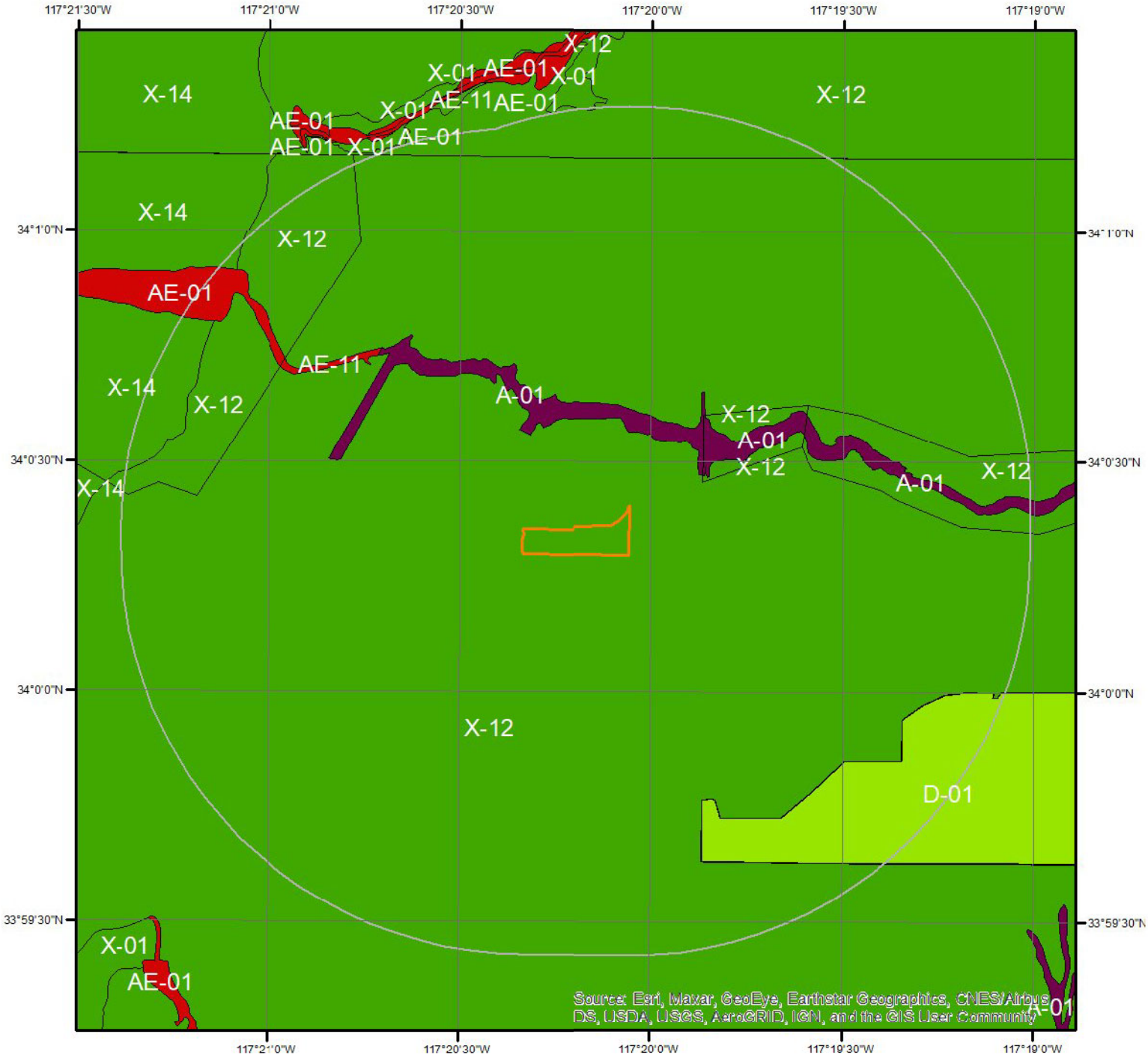
N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

Hydrologic Information



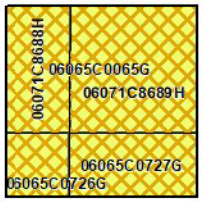
Flood Hazard Zones

Miles
0 0.2 0.4

This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

A	AO	X
A99	V	OPEN WATER
AE	VE	NOT POPULATED
AH	D	AREA NOT INCLUDED

N



ERIS

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.
For detailed Zone descriptions please click the link: https://floodadvocate.com/fema-zone-definitions

Available FIRM Panels in area:	06065C0065G(effective:2008-08-28) 06065C0727G(effective:2008-08-28) 06065C0726G(effective:2008-08-28) 06071C8689H(effective:2008-08-28) 06071C8688H(effective:2008-08-28)

Flood Zone A-01

Zone:	A
Zone subtype:	

Flood Zone AE-01

Zone:	AE
Zone subtype:	

Flood Zone AE-11

Zone:	AE
Zone subtype:	FLOODWAY

Flood Zone D-01

Zone:	D
Zone subtype:	

Flood Zone X-01

Zone:	X
Zone subtype:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

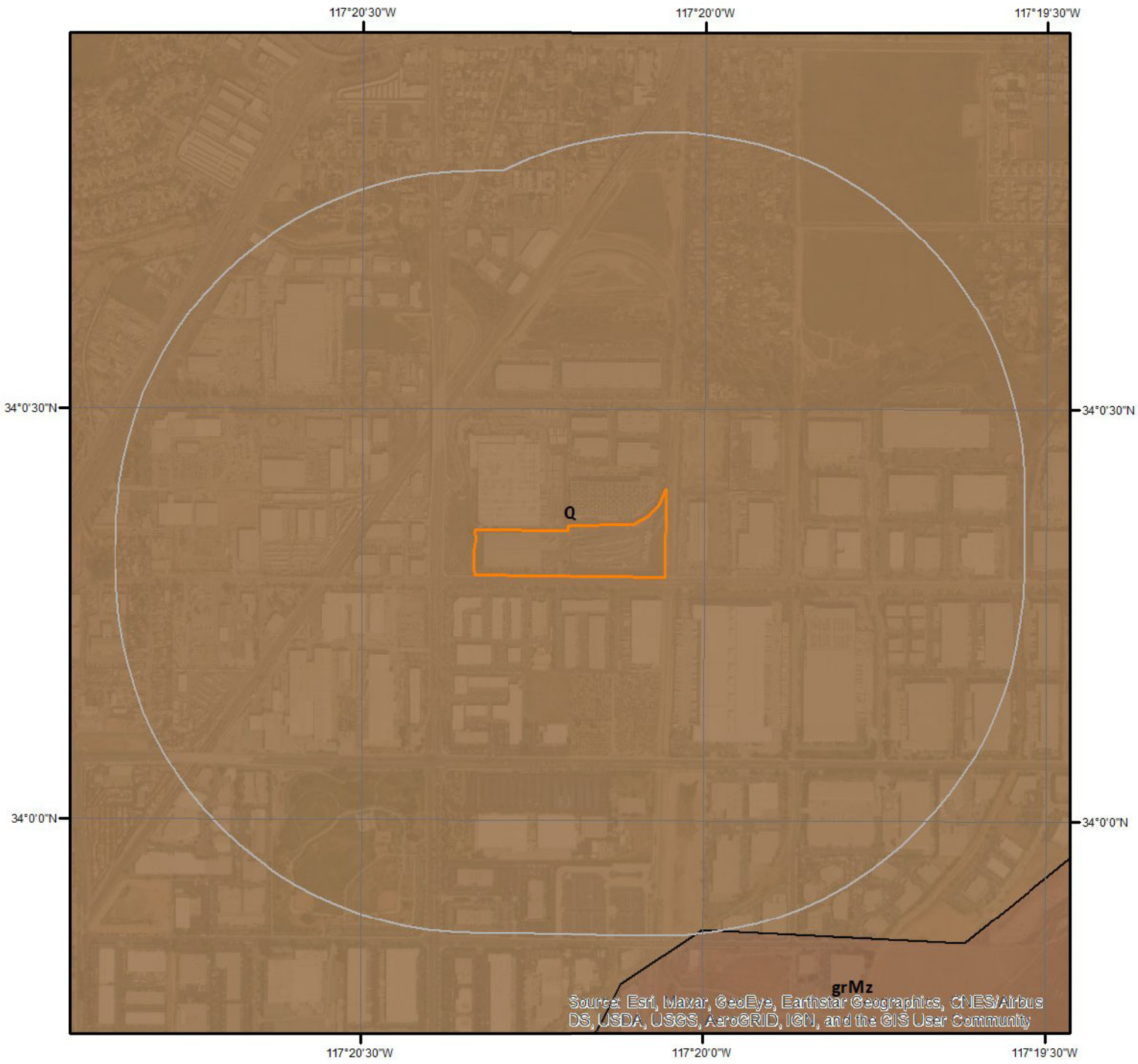
Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

Flood Zone X-14

Zone:	X
Zone subtype:	AREA WITH REDUCED FLOOD RISK DUE TO LEVEE

Geologic Information



0 0.2 0.4 Miles

N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

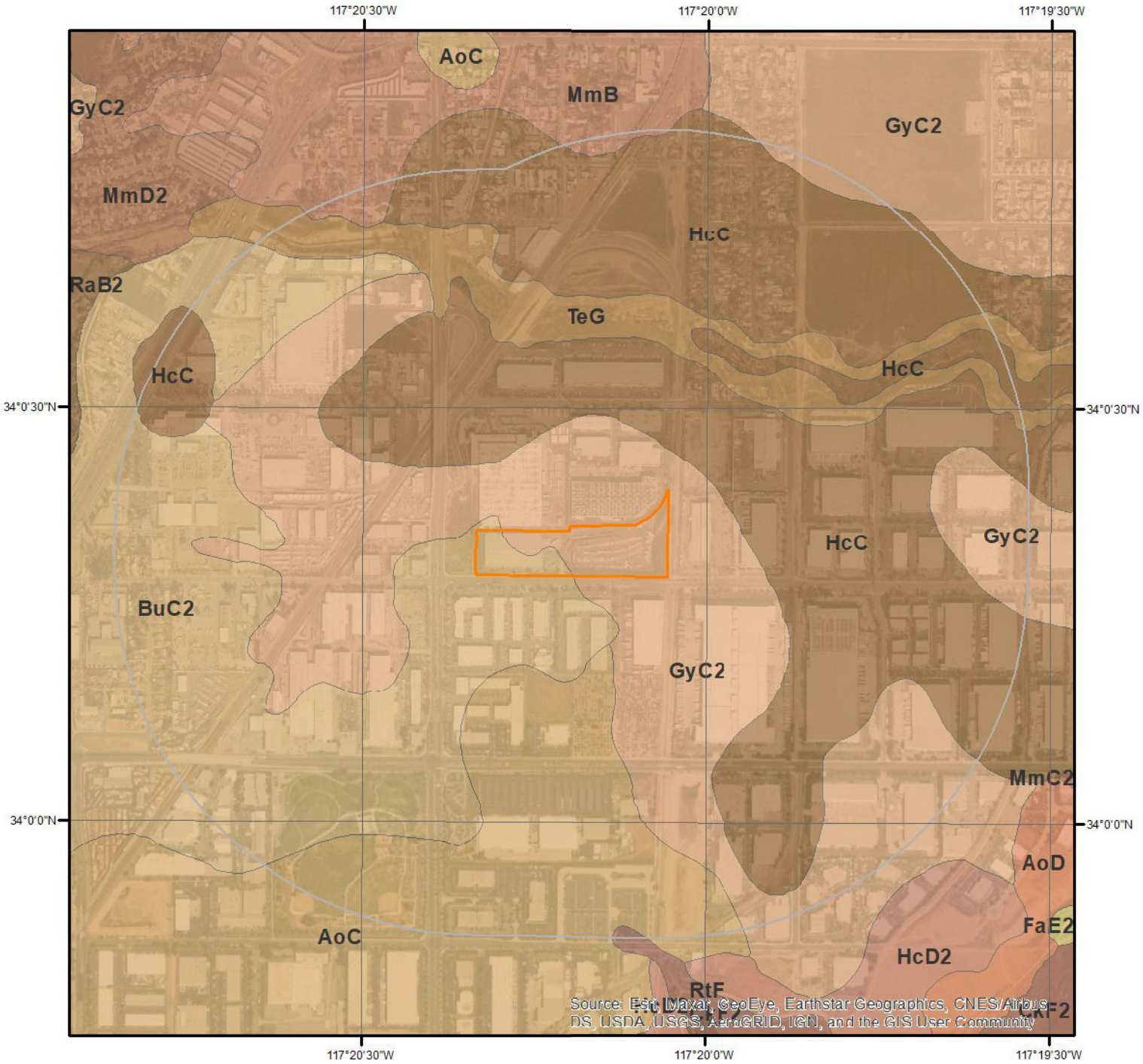
Geologic Unit Q

Unit Name:	Quaternary alluvium and marine deposits
Unit Age:	Pliocene to Holocene
Primary Rock Type:	alluvium
Secondary Rock Type:	terrace
Unit Description:	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast.

Geologic Unit grMz

Unit Name:	Mesozoic granitic rocks , unit 2 (Peninsular Ranges)
Unit Age:	Middle Jurassic to Late Cretaceous
Primary Rock Type:	tonalite
Secondary Rock Type:	quartz diorite
Unit Description:	Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite

Soil Information



SSURGO Soils

0 0.2 0.4 Miles

N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit AoC (21.03%)

Map Unit Name:	Arlington fine sandy loam, deep, 2 to 8 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Arlington(85%)

horizon H1(0cm to 28cm)	Fine sandy loam
horizon H2(28cm to 127cm)	Sandy loam
horizon H3(127cm to 152cm)	Cemented
horizon H4(152cm to 178cm)	Coarse sandy loam
horizon H4(152cm to 178cm)	Loamy coarse sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: AoC - Arlington fine sandy loam, deep, 2 to 8 percent slopes

Component: Arlington (85%)
The Arlington component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 40 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Hanford (10%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Map Unit BuC2 (11.76%)

Map Unit Name:	Buren fine sandy loam, 2 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Buren(85%)

horizon H1(0cm to 30cm)	Fine sandy loam
horizon H2(30cm to 71cm)	Loam
horizon H3(71cm to 94cm)	Loam
horizon H4(94cm to 145cm)	Cemented

Soil Information

Component Description:

Minor map unit components are excluded from this report.

Map Unit: BuC2 - Buren fine sandy loam, 2 to 8 percent slopes, eroded

Component: Buren (85%)
The Buren component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans. The parent material consists of alluvium derived from mixed sources. Depth to a root restrictive layer, duripan, is 37 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Buren (3%)
Generated brief soil descriptions are created for major soil components. The Buren soil is a minor component.

Component: Arlington (3%)
Generated brief soil descriptions are created for major soil components. The Arlington soil is a minor component.

Component: Cajalco (3%)
Generated brief soil descriptions are created for major soil components. The Cajalco soil is a minor component.

Component: Unnamed (2%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Wyman (2%)
Generated brief soil descriptions are created for major soil components. The Wyman soil is a minor component.

Component: Hanford (2%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Map Unit CkF2 (9.03%)

Map Unit Name:	Cieneba rocky sandy loam, 15 to 50 percent slopes, erod ed
Bedrock Depth - Min:	36cm
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Somewhat excessively drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Cieneba(75%)

horizon H1(0cm to 36cm)	Sandy loam
horizon H2(36cm to 56cm)	Weathered bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded

Component: Cieneba (75%)
The Cieneba component makes up 75 percent of the map unit. Slopes are 15 to 50 percent. This component is on uplands, hills. The parent material consists of residuum weathered from igneous rock. Depth to a root restrictive layer, bedrock, paralithic, is 14 to 22 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD060CA Shallow Loamy (1975) ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Component: Rock outcrop (10%)
Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Component: Unnamed (3%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Friant (3%)
Generated brief soil descriptions are created for major soil components. The Friant soil is a minor component.

Component: Escondido (3%)
Generated brief soil descriptions are created for major soil components. The Escondido soil is a minor component.

Component: Vista (3%)
Generated brief soil descriptions are created for major soil components. The Vista soil is a minor component.

Component: Fallbrook (3%)
Generated brief soil descriptions are created for major soil components. The Fallbrook soil is a minor component.

Map Unit GyC2 (23.53%)

Map Unit Name:	Greenfield sandy loam, 2 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Greenfield(85%)

horizon H1(0cm to 66cm)	Sandy loam
horizon H2(66cm to 109cm)	Fine sandy loam
horizon H3(109cm to 152cm)	Loam
horizon H4(152cm to 183cm)	Stratified loamy sand to sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded

Component: Greenfield (85%)
The Greenfield component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans, terraces. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Pachappa (3%)
Generated brief soil descriptions are created for major soil components. The Pachappa soil is a minor component.

Component: Unnamed (3%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Hanford (3%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Ramona (3%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Arlington (3%)

Soil Information

Generated brief soil descriptions are created for major soil components. The Arlington soil is a minor component.

Map Unit HcC (21.6%)

Map Unit Name:	Hanford coarse sandy loam, 2 to 8 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Hanford(85%)

horizon H1(0cm to 20cm)	Coarse sandy loam
horizon H2(20cm to 102cm)	Fine sandy loam
horizon H3(102cm to 152cm)	Stratified loamy sand to coarse sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HcC - Hanford coarse sandy loam, 2 to 8 percent slopes

Component: Hanford (85%)
The Hanford component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R020XD012CA Sandy ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Ramona (5%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Tujunga (2%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Component: Unnamed (2%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit MmB (5.85%)

Map Unit Name:	Monserate sandy loam, 0 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Monserate(85%)

horizon H1(0cm to 25cm)	Sandy loam

horizon H2(25cm to 71cm)	Sandy clay loam
horizon H3(71cm to 114cm)	Indurated
horizon H4(114cm to 145cm)	Cemented
horizon H5(145cm to 178cm)	Coarse sandy loam
horizon H5(145cm to 178cm)	Loamy coarse sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: MmB - Monserate sandy loam, 0 to 5 percent slopes

Component: Monserate (85%)
The Monserate component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R019XD029CA Loamy (1975) ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Greenfield (5%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Tujunga (5%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Map Unit TeG (7.19%)

Map Unit Name: Terrace escarpments

No more attributes available for this map unit

Component Description:

Minor map unit components are excluded from this report.

Map Unit: TeG - Terrace escarpments

Component: Terrace escarpments (100%)
Generated brief soil descriptions are created for major soil components. The Terrace escarpments is a miscellaneous area.

Wells and Additional Sources



Wells & Additional Sources

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	ID	Distance (ft)	Direction
	No records found		

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
	No records found		

USGS National Water Information System

Map Key	Monitoring Loc Identifier	Distance (ft)	Direction
2	USGS-340033117204001	2411.64	NW
4	USGS-340049117202301	2786.57	W
5	USGS-340056117193601	3812.22	NE
8	USGS-340106117194501	4423.32	NNE
10	USGS-340039117210901	4735.94	WNW

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Periodic Groundwater Level Measurement Locations

Map Key	Site Code	Distance (ft)	Direction
7	340180N1173300W001	4306.23	NNE

Well Completion Reports

Map Key	WCR No	Distance (ft)	Direction
1	WCR0245559	2259.20	NNW
1	WCR0045074	2259.20	NNW
1	WCR0131048	2259.20	NNW
1	WCR1997-010664	2259.20	NNW
1	WCR1997-009835	2259.20	NNW
1	WCR2001-016292	2259.20	NNW
1	WCR1776-011608	2259.20	NNW
1	WCR1994-010752	2259.20	NNW
1	WCR1994-010751	2259.20	NNW
1	WCR1954-002494	2259.20	NNW
1	WCR0256566	2259.20	NNW
1	WCR1954-001931	2259.20	NNW
1	WCR0005680	2259.20	NNW

Wells and Additional Sources Summary

1	WCR1993-013073	2259.20	NNW
1	WCR0185232	2259.20	NNW
1	WCR1952-001535	2259.20	NNW
1	WCR0184329	2259.20	NNW
1	WCR1997-010690	2259.20	NNW
1	WCR2004-011857	2259.20	NNW
1	WCR2004-011869	2259.20	NNW
1	WCR2001-013117	2259.20	NNW
1	WCR2004-011862	2259.20	NNW
1	WCR2000-010195	2259.20	NNW
1	WCR2002-014727	2259.20	NNW
1	WCR2000-010194	2259.20	NNW
1	WCR2007-011099	2259.20	NNW
1	WCR2001-016297	2259.20	NNW
1	WCR1997-009837	2259.20	NNW
1	WCR1997-009836	2259.20	NNW
1	WCR1956-002070	2259.20	NNW
1	WCR1929-000151	2259.20	NNW
1	WCR1998-009841	2259.20	NNW
1	WCR1930-000165	2259.20	NNW
1	WCR2004-011866	2259.20	NNW
1	WCR1993-013071	2259.20	NNW
1	WCR0047563	2259.20	NNW
1	WCR0049488	2259.20	NNW
1	WCR2003-011534	2259.20	NNW
1	WCR0325792	2259.20	NNW
1	WCR1998-009842	2259.20	NNW
1	WCR1997-010663	2259.20	NNW
1	WCR1957-001671	2259.20	NNW
1	WCR0207794	2259.20	NNW
1	WCR0030021	2259.20	NNW
1	WCR2007-010846	2259.20	NNW
1	WCR1928-000108	2259.20	NNW
1	WCR2004-011867	2259.20	NNW
1	WCR2002-014728	2259.20	NNW
1	WCR2004-011859	2259.20	NNW
1	WCR2007-010798	2259.20	NNW
1	WCR1997-010665	2259.20	NNW
1	WCR2001-016293	2259.20	NNW
1	WCR2004-011865	2259.20	NNW
1	WCR1997-009838	2259.20	NNW
1	WCR2007-010799	2259.20	NNW
1	WCR2003-011533	2259.20	NNW
1	WCR2004-011863	2259.20	NNW
1	WCR2007-010845	2259.20	NNW
1	WCR2001-016294	2259.20	NNW
1	WCR2004-011864	2259.20	NNW
1	WCR2004-011870	2259.20	NNW
1	WCR2004-011858	2259.20	NNW
1	WCR0075602	2259.20	NNW
1	WCR0030022	2259.20	NNW
1	WCR2004-011861	2259.20	NNW
1	WCR0046373	2259.20	NNW
1	WCR1960-001706	2259.20	NNW
1	WCR1997-009840	2259.20	NNW
1	WCR2004-011868	2259.20	NNW
1	WCR0184330	2259.20	NNW
1	WCR0100441	2259.20	NNW
1	WCR0019324	2259.20	NNW
1	WCR2002-014726	2259.20	NNW
1	WCR1997-009839	2259.20	NNW
1	WCR1998-009843	2259.20	NNW
1	WCR1993-013072	2259.20	NNW
1	WCR2002-013972	2259.20	NNW
1	WCR0325793	2259.20	NNW
1	WCR1959-001945	2259.20	NNW

Wells and Additional Sources Summary

1	WCR0192923	2259.20	NNW
1	WCR0086554	2259.20	NNW
1	WCR0057169	2259.20	NNW
1	WCR0218112	2259.20	NNW
1	WCR2004-011860	2259.20	NNW
1	WCR2002-014729	2259.20	NNW
1	WCR0117928	2259.20	NNW
1	WCR0297497	2259.20	NNW
1	WCR0175160	2259.20	NNW
1	WCR0271410	2259.20	NNW
1	WCR0057168	2259.20	NNW
1	WCR2001-016296	2259.20	NNW
1	WCR1930-000164	2259.20	NNW
1	WCR2001-016295	2259.20	NNW
1	WCR0134839	2259.20	NNW
3	WCR1930-000243	2724.92	SSW
3	WCR2006-013576	2724.92	SSW
3	WCR2003-013383	2724.92	SSW
3	WCR0049493	2724.92	SSW
3	WCR1950-002519	2724.92	SSW
3	WCR0146647	2724.92	SSW
3	WCR1776-011611	2724.92	SSW
3	WCR2006-013578	2724.92	SSW
3	WCR1953-002159	2724.92	SSW
3	WCR2003-013384	2724.92	SSW
3	WCR2006-013577	2724.92	SSW
3	WCR2003-013382	2724.92	SSW
3	WCR1953-001663	2724.92	SSW
3	WCR1939-000338	2724.92	SSW
3	WCR1957-001730	2724.92	SSW
3	WCR0057174	2724.92	SSW
6	WCR1954-001932	4125.28	ENE
6	WCR1990-018335	4125.28	ENE
6	WCR2001-015076	4125.28	ENE
6	WCR2007-009309	4125.28	ENE
6	WCR1961-001810	4125.28	ENE
6	WCR0026463	4125.28	ENE
6	WCR1928-000280	4125.28	ENE
6	WCR1963-001599	4125.28	ENE
6	WCR0119476	4125.28	ENE
6	WCR1961-001809	4125.28	ENE
6	WCR1928-000109	4125.28	ENE
6	WCR1989-018980	4125.28	ENE
9	WCR1958-001301	4510.33	SE
9	WCR1960-002151	4510.33	SE
9	WCR1961-002260	4510.33	SE
9	WCR0114685	4510.33	SE
9	WCR1977-009217	4510.33	SE
9	WCR1957-001729	4510.33	SE
9	WCR1960-002150	4510.33	SE
9	WCR1960-002149	4510.33	SE
9	WCR1949-000808	4510.33	SE
9	WCR1960-002152	4510.33	SE
11	WCR2021-002885	4824.17	SW
12	WCR2021-002876	4833.33	SW
13	WCR1950-001877	4896.98	N
14	WCR2019-009809	4922.36	N
14	WCR2019-009812	4922.36	N
14	WCR2019-009816	4922.36	N
14	WCR2019-009807	4922.36	N
14	WCR2019-009811	4922.36	N
14	WCR2019-009826	4922.36	N
14	WCR2019-009818	4922.36	N
14	WCR2019-009827	4922.36	N
14	WCR2019-009817	4922.36	N
14	WCR2019-009814	4922.36	N

Wells and Additional Sources Summary

14	WCR2019-009815	4922.36	N
14	WCR2019-009808	4922.36	N
15	WCR2021-002873	5067.93	SW

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	NW	0.46	2,411.64	893.66	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	Cenozoic Erathem
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	402	Aquifer Type:	Unconfined single aquifer
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:	1929	Latitude:	34.01163889000000
Source Map Scale:	24000	Longitude:	-117.3428889000000
Monitoring Loc Name:	002S004W07L001S		
Monitoring Loc Identifier:	USGS-340033117204001		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070203		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	895		
Vertical Measure Unit:	feet		
Vertical Accuracy:	10		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	W	0.53	2,786.57	881.73	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	400	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE

Wells and Additional Sources Detail Report

Construction Date:		Latitude:	34.00640370000000
Source Map Scale:	24000	Longitude:	-117.3480999000000
Monitoring Loc Name:	002S004W07N003S		
Monitoring Loc Identifier:	USGS-340049117202301		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070203		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:			
Vertical Measure Unit:			
Vertical Accuracy:			
Vertical Accuracy Unit:			
Vertical Collection Mthd:			
Vert Coord Refer System:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NE	0.72	3,812.22	988.18	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	Other aquifers
Well Depth:	443	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:		Latitude:	34.01557027000000
Source Map Scale:	24000	Longitude:	-117.3275436000000
Monitoring Loc Name:	002S004W08E001S		
Monitoring Loc Identifier:	USGS-340056117193601		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070203		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		

Horizontal Collection Mthd:	Interpolated from MAP.
Horiz Coord Refer System:	NAD83
Vertical Measure:	
Vertical Measure Unit:	
Vertical Accuracy:	
Vertical Accuracy Unit:	
Vertical Collection Mthd:	
Vert Coord Refer System:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	NNE	0.84	4,423.32	963.15	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	Other aquifers
Well Depth:	494	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:		Latitude:	34.01834790000000
Source Map Scale:	24000	Longitude:	-117.3300437000000
Monitoring Loc Name:	002S004W08D004S		
Monitoring Loc Identifier:	USGS-340106117194501		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070203		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:			
Vertical Measure Unit:			
Vertical Accuracy:			
Vertical Accuracy Unit:			
Vertical Collection Mthd:			
Vert Coord Refer System:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	WNW	0.90	4,735.94	829.95	FED USGS

Wells and Additional Sources Detail Report

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	468	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	RIVERSIDE
Construction Date:		Latitude:	34.01084795000000
Source Map Scale:	24000	Longitude:	-117.3533778000000
Monitoring Loc Name:	002S005W12K002S		
Monitoring Loc Identifier:	USGS-340039117210901		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070203		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:			
Vertical Measure Unit:			
Vertical Accuracy:			
Vertical Accuracy Unit:			
Vertical Collection Mthd:			
Vert Coord Refer System:			

Periodic Groundwater Level Measurement Locations

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	NNE	0.82	4,306.23	964.27	MONITOR WELLS

Site Code:	340180N1173300W001	Basin ID:	
State Well No:	02S04W08D003S	Basin Code:	8-002.03
Station ID:	46721	Basin Name:	Riverside-Arlington
WCR No:	100582	Basin Region Code:	8
Well Depth:	494	Basin Region Desc:	North Lahontan
Well Use:	Observation	Basin Region Actv:	Y
Well Type:	Single Well	Basin Region Order:	8
Well Name:	Highgrove 3	County Name:	Riverside
Latitude:	34.018	WLM Method:	Surveyed to a benchmark
Longitude:	-117.33	WLM Accuracy:	0.1 ft.

Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0245559	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0045074	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0131048	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-010664	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967

Decimal Longitude: -117.33967
Location: 656 E La Cadena Drive
Location(OSWCR): 656 E La Cadena Drive
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1997-009835
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 800 Iowa Avenue
Location(OSWCR): 800 Iowa Avenue
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2001-016292
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 323 Iowa Ave
Location(OSWCR): 323 Iowa Ave
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1776-011608
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1994-010752	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	800 IOWA AVE		
Location(OSWCR):	800 IOWA AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1994-010751	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	800 IOWA AVE		
Location(OSWCR):	800 IOWA AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1954-002494	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	CITRUS AVE, LACADENA DR		
Location(OSWCR):	CITRUS AVE, LACADENA DR		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0256566	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		

Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1954-001931
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: CITRUS AVE, LA CADENA DR
Location(OSWCR): CITRUS AVE, LA CADENA DR
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0005680
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1993-013073
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 656 E La Cadena Drive
Location(OSWCR): 656 E La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

Wells and Additional Sources Detail Report

WCR No:	WCR0185232	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1952-001535	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	CENTER ST, LA CADENA DR		
Location(OSWCR):	CENTER ST, LA CADENA DR		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0184329	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-010690	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011857	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011869	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-013117	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	687 Iowa Ave		
Location(OSWCR):	687 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011862	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside

Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2000-010195	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	IOWA AVENUE		
Location(OSWCR):	IOWA AVENUE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2002-014727	City(OSWCR):	Colton
City:	Colton	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	2718 Iowa Avenue		
Location(OSWCR):	2718 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2000-010194	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	IOWA AVENUE		
Location(OSWCR):	IOWA AVENUE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2007-011099	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	1326 Citrus Avenue		
Location(OSWCR):	1326 Citrus Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-016297	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	323 Iowa Ave		
Location(OSWCR):	323 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-009837	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	800 Iowa Avenue		
Location(OSWCR):	800 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-009836	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967

Decimal Longitude: -117.33967
Location: 800 Iowa Avenue
Location(OSWCR): 800 Iowa Avenue
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1956-002070
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: La Cadena Drive
Location(OSWCR): La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1929-000151
City: Highgrove
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: LA CADENA ST, CENTER ST, IOWA ST, VILLA
Location(OSWCR): LA CADENA ST, CENTER ST, IOWA ST, VILLA
City(OSWCR): Highgrove
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR1998-009841
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 333 W La Cadena Drive
Location(OSWCR): 333 W La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1930-000165	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	Palmyrita Avenue		
Location(OSWCR):	Palmyrita Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011866	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1993-013071	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	656 E La Cadena Drive		
Location(OSWCR):	656 E La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0047563	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		

Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0049488
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2003-011534
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 333 W La Cadena Drive
Location(OSWCR): 333 W La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0325792
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

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WCR No:	WCR1998-009842	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-010663	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	656 E La Cadena Drive		
Location(OSWCR):	656 E La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1957-001671	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	LA CADENA DR, CENTER ST		
Location(OSWCR):	LA CADENA DR, CENTER ST		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0207794	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0030021	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2007-010846	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	350 Stephens Street		
Location(OSWCR):	350 Stephens Street		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1928-000108	City(OSWCR):	Grand Terrace
City:	Grand Terrace	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	MAIN ST, AT & SF TRACKS		
Location(OSWCR):	MAIN ST, AT & SF TRACKS		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011867	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside

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County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2002-014728	City(OSWCR):	Colton
City:	Colton	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	2718 Iowa Avenue		
Location(OSWCR):	2718 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011859	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2007-010798	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	350 Stephens Street		
Location(OSWCR):	350 Stephens Street		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-010665	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	656 E La Cadena Drive		
Location(OSWCR):	656 E La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-016293	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	323 Iowa Ave		
Location(OSWCR):	323 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011865	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-009838	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967

Decimal Longitude: -117.33967
Location: 800 Iowa Avenue
Location(OSWCR): 800 Iowa Avenue
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2007-010799
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 350 Stephens Street
Location(OSWCR): 350 Stephens Street
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2003-011533
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 333 W La Cadena Drive
Location(OSWCR): 333 W La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2004-011863
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 333 W La Cadena Drive
Location(OSWCR): 333 W La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2007-010845	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	350 Stephens Street		
Location(OSWCR):	350 Stephens Street		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-016294	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	323 Iowa Ave		
Location(OSWCR):	323 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011864	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011870	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		

Location(OSWCR): 333 W La Cadena Drive
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR2004-011858
City: Riverside
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: 333 W La Cadena Drive
Location(OSWCR): 333 W La Cadena Drive
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0075602
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0030022
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

Wells and Additional Sources Detail Report

WCR No:	WCR2004-011861	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0046373	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1960-001706	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	La Cadena Drive at Oxford Street		
Location(OSWCR):	La Cadena Drive at Oxford Street		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-009840	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	800 Iowa Avenue		
Location(OSWCR):	800 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011868	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0184330	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0100441	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0019324	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside

Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2002-014726	City(OSWCR):	Colton
City:	Colton	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	2718 Iowa Avenue		
Location(OSWCR):	2718 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1997-009839	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	800 Iowa Avenue		
Location(OSWCR):	800 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1998-009843	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1993-013072	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	656 E La Cadena Drive		
Location(OSWCR):	656 E La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2002-013972	City(OSWCR):	Colton
City:	Colton	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	2718 Iowa Avenue		
Location(OSWCR):	2718 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0325793	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1959-001945	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967

Decimal Longitude: -117.33967
Location: WOODSON SUBDIVISION
Location(OSWCR): WOODSON SUBDIVISION
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0192923
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0086554
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0057169
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0218112	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2004-011860	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	333 W La Cadena Drive		
Location(OSWCR):	333 W La Cadena Drive		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2002-014729	City(OSWCR):	Colton
City:	Colton	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	2718 Iowa Avenue		
Location(OSWCR):	2718 Iowa Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0117928	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		

Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0297497
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0175160
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No: WCR0271410
City: None
County: Riverside
Decimal Latitude: 34.01207
Decimal Longitude: -117.33967
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01207
Decim Long(OSWCR): -117.33967
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

Wells and Additional Sources Detail Report

WCR No:	WCR0057168	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-016296	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	323 Iowa Ave		
Location(OSWCR):	323 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR1930-000164	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	OXFORD ST, LA CADENA DR		
Location(OSWCR):	OXFORD ST, LA CADENA DR		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR2001-016295	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	323 Iowa Ave		
Location(OSWCR):	323 Iowa Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNW	0.43	2,259.20	920.27	WATER WELLS

WCR No:	WCR0134839	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01207
Decimal Latitude:	34.01207	Decim Long(OSWCR):	-117.33967
Decimal Longitude:	-117.33967		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1930-000243	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	MARLBOROUGH AVE, IOWA AVE		
Location(OSWCR):	MARLBOROUGH AVE, IOWA AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR2006-013576	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	1495 Columbia Avenue		
Location(OSWCR):	1495 Columbia Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR2003-013383	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside

Wells and Additional Sources Detail Report

County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	1495 Columbia Ave		
Location(OSWCR):	1495 Columbia Ave		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR0049493	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1950-002519	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	IOWA, COLUMBIA		
Location(OSWCR):	IOWA, COLUMBIA		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR0146647	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1776-011611	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR2006-013578	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	1495 Columbia Avenue		
Location(OSWCR):	1495 Columbia Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1953-002159	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	ARDMORE		
Location(OSWCR):	ARDMORE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR2003-013384	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974

Decimal Longitude: -117.33974
Location: 1495 Columbia Ave
Location(OSWCR): 1495 Columbia Ave
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No: WCR2006-013577
City: Riverside
County: Riverside
Decimal Latitude: 33.99752
Decimal Longitude: -117.33974
Location: 1495 Columbia Avenue
Location(OSWCR): 1495 Columbia Avenue
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99752
Decim Long(OSWCR): -117.33974
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No: WCR2003-013382
City: Riverside
County: Riverside
Decimal Latitude: 33.99752
Decimal Longitude: -117.33974
Location: 1495 Columbia Ave
Location(OSWCR): 1495 Columbia Ave
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99752
Decim Long(OSWCR): -117.33974
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No: WCR1953-001663
City: Riverside
County: Riverside
Decimal Latitude: 33.99752
Decimal Longitude: -117.33974
Location: ARDMORE, PALMYRITA, IOWA AVE
Location(OSWCR): ARDMORE, PALMYRITA, IOWA AVE
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99752
Decim Long(OSWCR): -117.33974
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1939-000338	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	Columbia Street & Iowa Street		
Location(OSWCR):	Columbia Street & Iowa Street		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR1957-001730	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	STACY ST		
Location(OSWCR):	STACY ST		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.52	2,724.92	927.69	WATER WELLS

WCR No:	WCR0057174	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99752
Decimal Latitude:	33.99752	Decim Long(OSWCR):	-117.33974
Decimal Longitude:	-117.33974		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1954-001932	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	PALMYRITA AVE, CALIF AVE, IOWA ST		

Location(OSWCR): PALMYRITA AVE, CALIF AVE, IOWA ST
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No: WCR1990-018335
City: Riverside
County: Riverside
Decimal Latitude: 34.01209
Decimal Longitude: -117.32227
Location: Center Street & Michigan Avenue
Location(OSWCR): Center Street & Michigan Avenue
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01209
Decim Long(OSWCR): -117.32227
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No: WCR2001-015076
City: Riverside
County: Riverside
Decimal Latitude: 34.01209
Decimal Longitude: -117.32227
Location: 627 Swayzee Ct
Location(OSWCR): 627 Swayzee Ct
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01209
Decim Long(OSWCR): -117.32227
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No: WCR2007-009309
City: Riverside
County: Riverside
Decimal Latitude: 34.01209
Decimal Longitude: -117.32227
Location: Center Street & Garfield Avenue
Location(OSWCR): Center Street & Garfield Avenue
City(OSWCR): Riverside
County(OSWCR): Riverside
Decimal Lat(OSWCR): 34.01209
Decim Long(OSWCR): -117.32227
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

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WCR No:	WCR1961-001810	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	GARFIELD, SPRING ST, CALIFORNIA		
Location(OSWCR):	GARFIELD, SPRING ST, CALIFORNIA		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR0026463	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1928-000280	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1963-001599	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	FLYNN, SANRIVE STS		
Location(OSWCR):	FLYNN, SANRIVE STS		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR0119476	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1961-001809	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	GARFIELD, SPRING ST, CALIFORNIA		
Location(OSWCR):	GARFIELD, SPRING ST, CALIFORNIA		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1928-000109	City(OSWCR):	Grand Terrace
City:	Grand Terrace	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	MAIN ST, AT & SF TRACKS		
Location(OSWCR):	MAIN ST, AT & SF TRACKS		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	ENE	0.78	4,125.28	1,043.78	WATER WELLS

WCR No:	WCR1989-018980	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside

County:	Riverside	Decimal Lat(OSWCR):	34.01209
Decimal Latitude:	34.01209	Decim Long(OSWCR):	-117.32227
Decimal Longitude:	-117.32227		
Location:	CENTER ST, MICHIGAN		
Location(OSWCR):	CENTER ST, MICHIGAN		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1958-001301	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	MT VERNON AVE, BLN ST		
Location(OSWCR):	MT VERNON AVE, BLN ST		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1960-002151	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1961-002260	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

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Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR0114685	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1977-009217	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	825 Marlborough Avenue		
Location(OSWCR):	825 Marlborough Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1957-001729	City(OSWCR):	Riverside
City:	Riverside	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239
Decimal Longitude:	-117.32239		
Location:	2177 Mt Vernon Avenue		
Location(OSWCR):	2177 Mt Vernon Avenue		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No:	WCR1960-002150	City(OSWCR):	None
City:	None	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.99749
Decimal Latitude:	33.99749	Decim Long(OSWCR):	-117.32239

Decimal Longitude: -117.32239
Location: None
Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No: WCR1960-002149
City: None
County: Riverside
Decimal Latitude: 33.99749
Decimal Longitude: -117.32239
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99749
Decim Long(OSWCR): -117.32239
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No: WCR1949-000808
City: None
County: Riverside
Decimal Latitude: 33.99749
Decimal Longitude: -117.32239
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99749
Decim Long(OSWCR): -117.32239
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SE	0.85	4,510.33	1,338.86	WATER WELLS

WCR No: WCR1960-002152
City: None
County: Riverside
Decimal Latitude: 33.99749
Decimal Longitude: -117.32239
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): Riverside
Decimal Lat(OSWCR): 33.99749
Decim Long(OSWCR): -117.32239
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	SW	0.91	4,824.17	889.55	WATER WELLS

WCR No:	WCR2021-002885	City(OSWCR):	RIVERSIDE
City:	RIVERSIDE	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.9949609
Decimal Latitude:	33.9949609	Decim Long(OSWCR):	-117.3493528
Decimal Longitude:	-117.3493528		
Location:	1717 chicago AVE		
Location(OSWCR):	1717 chicago AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	SW	0.92	4,833.33	885.91	WATER WELLS

WCR No:	WCR2021-002876	City(OSWCR):	RIVERSIDE
City:	RIVERSIDE	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.9953679
Decimal Latitude:	33.9953679	Decim Long(OSWCR):	-117.3499348
Decimal Longitude:	-117.3499348		
Location:	1717 chicago AVE		
Location(OSWCR):	1717 chicago AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	N	0.93	4,896.98	917.67	WATER WELLS

WCR No:	WCR1950-001877	City(OSWCR):	Highgrove
City:	Highgrove	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	34.01951
Decimal Latitude:	34.01951	Decim Long(OSWCR):	-117.33924
Decimal Longitude:	-117.33924		
Location:	MAIN ST, TAYLOR, PICO ST		
Location(OSWCR):	MAIN ST, TAYLOR, PICO ST		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009809	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		

Location(OSWCR): None
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No: WCR2019-009812
City: None
County: San Bernardino
Decimal Latitude: 34.0196944
Decimal Longitude: -117.3388056
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): San Bernardino
Decimal Lat(OSWCR): 34.0196944
Decim Long(OSWCR): -117.3388056
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No: WCR2019-009816
City: None
County: San Bernardino
Decimal Latitude: 34.0196944
Decimal Longitude: -117.3388056
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): San Bernardino
Decimal Lat(OSWCR): 34.0196944
Decim Long(OSWCR): -117.3388056
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No: WCR2019-009807
City: None
County: San Bernardino
Decimal Latitude: 34.0196944
Decimal Longitude: -117.3388056
Location: None
Location(OSWCR): None
City(OSWCR): None
County(OSWCR): San Bernardino
Decimal Lat(OSWCR): 34.0196944
Decim Long(OSWCR): -117.3388056
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

Wells and Additional Sources Detail Report

WCR No:	WCR2019-009811	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009826	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009818	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009827	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water		

Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009817	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009814	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009815	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino
County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.93	4,922.36	918.99	WATER WELLS

WCR No:	WCR2019-009808	City(OSWCR):	None
City:	None	County(OSWCR):	San Bernardino

Wells and Additional Sources Detail Report

County:	San Bernardino	Decimal Lat(OSWCR):	34.0196944
Decimal Latitude:	34.0196944	Decim Long(OSWCR):	-117.3388056
Decimal Longitude:	-117.3388056		
Location:	None		
Location(OSWCR):	None		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	SW	0.96	5,067.93	884.88	WATER WELLS

WCR No:	WCR2021-002873	City(OSWCR):	RIVERSIDE
City:	RIVERSIDE	County(OSWCR):	Riverside
County:	Riverside	Decimal Lat(OSWCR):	33.9949312
Decimal Latitude:	33.9949312	Decim Long(OSWCR):	-117.3505068
Decimal Longitude:	-117.3505068		
Location:	1717 chicago AVE		
Location(OSWCR):	1717 chicago AVE		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *RIVERSIDE* County: **2**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *RIVERSIDE* County

No Measures/Homes:	24
Geometric Mean:	0.3
Arithmetic Mean:	0.3
Median:	0.5
Standard Deviation:	0.8
Maximum:	1.7
% >4 pCi/L:	0
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the EPA/State Residential Radon Survey of California conducted during 1989-90. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

U.S. Fish & Wildlife Service Wetland Data — **US WETLAND**

The U.S. Fish & Wildlife Service Wetland layer represents the approximate location and type of wetlands and deepwater habitats in the United States.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

State Sources

Oil and Gas Wells — **OGW**

A list of Oil and Gas well locations. This is provided by California's Department of Conservation Division of

Appendix

Oil, Gas and Geothermal Resources.

Periodic Groundwater Level Measurement Locations **MONITOR WELLS**

Locations of groundwater level monitoring wells in the Department of Water Resources (DWR)'s Periodic Groundwater Levels dataset. The DWR Periodic Groundwater Levels dataset contains seasonal and long-term groundwater level measurements collected by the Department of Water Resources and cooperating agencies.

Well Completion Reports **WATER WELLS**

List of wells from the Well Completion Reports data made available by the California Department of Water Resources' (DWR) Online System for Well Completion Reports (OSWCR). Please note that the majority of well completion reports have been spatially registered to the center of the 1x1 mile Public Land Survey System section that the well is located in.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

The following questionnaire is required by the ASTM Standard E1527-13 and E1527-21, which adheres to the All Appropriate Inquiries (AAI) Rule (United States Environmental Protection Agency) (40 CFR 312).

As defined by ASTM, the User of the report is the *"party seeking to use Practice E1527 to complete an environmental site assessment of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The user has specific obligations for completing a successful application of this practice."*

PROPERTY ADDRESS:	1151, Palmyrita Avenue
PROPERTY CITY, STATE ZIP:	Riverside, California, 92507

1. **Environmental liens that are filed or recorded against the property (40 CFR 312.25)**

   Did a search of land title records (or judicial records) identify any environmental liens filed or recorded against the subject property under federal, tribal, state or local law?

   ☐ YES ☐ NO No idea

2. **Activity and use limitations (AULs) that are in place on the subject property or that have been filed or recorded against the subject property (40 CFR 312.26(a)(1)(v) and (vi))**

   Did a search of land title records (or judicial records) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the subject property and/or have been filed or recorded against the subject property under federal, tribal, state or local law?

   ☐ YES ☐ NO No idea

3. **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)**

   Do you have any specialized knowledge or experience related to the subject property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

   ☐ YES ☑ NO

4. Relationship of the purchase price to the fair market value of the subject property if it were not contaminated (40 CFR 312.29)

Does the purchase price being paid for this subject property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the subject property?

☐ YES ☑ NO

---

5. Commonly known or reasonably ascertainable information about the Property (40 CFR 312.30)

Are you aware of commonly known or reasonably ascertainable information about the subject property that would help the environmental professional to identify conditions indicative of releases or threatened releases?

☐ YES ☑ NO

---

a. Do you know the past uses of the subject property?

☐ YES ☑ NO

---

b. Do you know of specific chemicals that are present or once were present at the subject property?

☐ YES ☑ NO

---

c. Do you know of spills or other chemical releases that have taken place at the subject property?

☐ YES ☑ NO

To my knowledge no spills since we own the property.

---

d. Do you know of any environmental cleanups that have taken place at the subject property?

☐ YES ☑ NO

---

e. Do you have any prior knowledge that the subject property was developed as a gas station, drycleaner, manufacturing/industrial facility in the past?

☐ YES ☑ NO

---

f. Are you aware of historical use of hazardous materials or petroleum products used or present on the subject property?

☐ YES ☑ NO

---

g. Do you know if the property is currently or was formerly equipped with underground storage tanks (USTs) or septic tanks?

☐ YES ☑ NO

h. Do you know of any past, threatened or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the subject property?

☐ YES ☑ NO

6. The degree of obviousness of the presence or likely presence of contamination at the subject property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)

Based on your knowledge and experience related to the subject property, are there any obvious indicators that point to the presence or likely presence of releases at the subject property?

☐ YES ☑ NO

There is a trace of maybe liquid or dirt from previous owner near the railroad track.

Signature of User/Person Interviewed: [signature]

Name of User/Person Interviewed: Kore Dees

Title/Relationship to Property: West Coast Warehouse & Distribution Manager

Phone Number/Email: 951.680.9179 / kore.dees@barretteoutdoorliving.com

Date: 4.26.22

Contact for additional information:

Name: Martin Blais

Relationship to Property: Seller's representative

Phone Number/Email: 514.220.3787 / martin.blais@ebarrette.com

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

Please complete to the best of your knowledge. For those questions that are not applicable, please respond with an "N/A". For those questions that are unknown, please respond with "unknown".

1. PROPERTY INFORMATION:

Property Name: N/A		
Property Address: 1151 Palmyrita Avenue		
City Riverside	State CA	Zip 92507
Assessor's Parcel Number		
Property Owner & Contact Information: BarretteWood Property Inc. // Contact Information : Martin Blais martin.blais@ebarrette.com		
Date Property Owner Purchased: June 10, 2015		
Key Site Manager & Contact Information: Kore Dees		

2. COMPLETED BY

Signature	Date 4.26.22
Printed Name Kore Dees	Relation to Subject Property West Coast Warehouse & Distribution Manager

3. PREVIOUS INVESTIGATIONS

Have any previous environmental investigations been performed at the property, including Phase I ESAs, Phase II Subsurface Investigations, Remediation, Asbestos or Lead-Based Paint surveys? All copies have been provided to Dedeaux Properties, LLC.

(If yes, please provide copies)

4. PROPERTY DESCRIPTION

Property Size: _____ Number of Building(s): _____

Size of Building(s): _____

Date of Construction: _____

Property Type: (please circle)

Multi-Family Hotel Mobile Home Park Retail/Commercial Industrial Office

Other: Please see documentation allready provided to Dedeaux Properties, LLC.

Please provide Rent Roll if Applicable.

Historical Use of Property: _____

PARTNER

5. Surrounding Property Uses

Direction	Use
North	
South	
East	
West	

Are you aware of any potential environmental concerns associated with surrounding properties?

_____ YES ✓ NO

If yes, please describe: For your information, the neighbor located on the North side of the property is a paint distributor.

6. Utilities & Services

Please provide the name of the utility or contractor providing the following:

Electric	Riverside public utilities	Bio-hazardous Waste	N/A
Gas	N/A	Elevator Maintenance	N/A
Potable Water	Riverside public utilities	Used Grease	N/A
Sanitary Sewer	Riverside public utilities	Hazardous Waste	N/A

7. On Site Operations

Are you aware of any of the following conditions, either past or present, on the property?		
Condition	**Response**	**If yes, please describe**
1. Stored Chemicals	☐ Yes ☑ No	
2. Underground Storage Tanks	☐ Yes ☑ No	
3. Aboveground Storage Tanks	☐ Yes ☑ No	Precision : for operation some propane tanks are stored for our lift trucks needs.
4. Spills or Releases	☐ Yes ☑ No	
5. Dump Areas/Landfills	☐ Yes ☑ No	
6. Waste Treatment Systems	☐ Yes ☑ No	
7. Clarifiers/Separators	☐ Yes ☑ No	
8. Vents/Odors	☐ Yes ☑ No	
9. Floor Drains/Sumps	☑ Yes ☐ No	Standard water drain for the building.
10. Stained Soil	☑ Yes ☐ No	Near railroad track and not related to seller's activities.
11. Electrical Transformers	☐ Yes ☑ No	
12. Hydraulic Lifts/Elevators	☐ Yes ☑ No	
13. Dry Cleaning Operations	☐ Yes ☑ No	
14. Oil/Gas/Water/Monitoring Wells	☐ Yes ☑ No	
15. Environmental Permits	☐ Yes ☑ No	

OFFICE OF THE TREASURER-TAX COLLECTOR
RIVERSIDE COUNTY, CALIFORNIA

BACK | VIEW VALUATION INFO | ENROLL PIN FOR E-BILLING | MANAGE E-BILLING SUBSCRIPTIONS

Account Information

PARCEL NUMBER	PROPERTY TYPE	STATUS	LAST UPDATE
247170030	Real	Active	5/2/2022 2:42:46 PM

Current Owner:
BWP INC

Tax Rate Area
009-133 RIVERSIDE

Class Code
Vacant Commercial Land
Legal Description
1.67 ACRES M/L IN PAR 1 PM 210/038 PM 31897

Secured Property Tax

BILL NUMBER: 2020006222546 - SUPPLEMENTAL — VIEW BILL DETAIL

TAX YEAR : 2020	TAX	OTHER CHARGES	TOTAL PAID	TOTAL	DUE DATE	STATUS
Installment #1	$753.25	$0.00	$0.00	$753.25	5/2/2022	PAY
Installment #2	$753.25	$0.00	$0.00	$753.25	8/31/2022	PAY
Total Bill	$1,506.50	$0.00	$0.00	$1,506.50		PAY TOTAL BILL

Total Secured Tax

	TAX	OTHER CHARGES	TOTAL PAID	TOTAL
Grand Total	$1,506.50	$0.00	$0.00	$1,506.50

PLEASE NOTE

Please click "PAY" to add unpaid tax bills to your Cart.
If your Assessment has both current and defaulted tax years due, you will need to add each of these to your check out cart individually.
All secured defaulted tax years must be paid together (adding one will add all prior year items to your Cart).

Paid Tax Bills

Click here to view previously paid tax bills.

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FEMA Flood Map Service Center: Search By Address

Enter an address, place, or coordinates:

1027 Palmyrita Ave, Riverside, CA 92507 Search

Whether you are in a high risk zone or not, you may need flood insurance (https://www.fema.gov/national-flood-insurance-program) because most homeowners insurance doesn't cover flood damage. If you live in an area with low or moderate flood risk, you are 5 times more likely to experience flood than a fire in your home over the next 30 years. For many, a National Flood Insurance Program's flood insurance policy could cost less than $400 per year. Call your insurance agent today and protect what you've built.

Learn more about steps you can take (https://www.fema.gov/what-mitigation) to reduce flood risk damage.

Search Results—Products for **RIVERSIDE, CITY OF**

Show ALL Products » (https://msc.fema.gov/portal/availabilitySearch?addcommunity=060260&communityNa

The flood map for the selected area is number **06065C0065G**, effective on **08/28/2008**

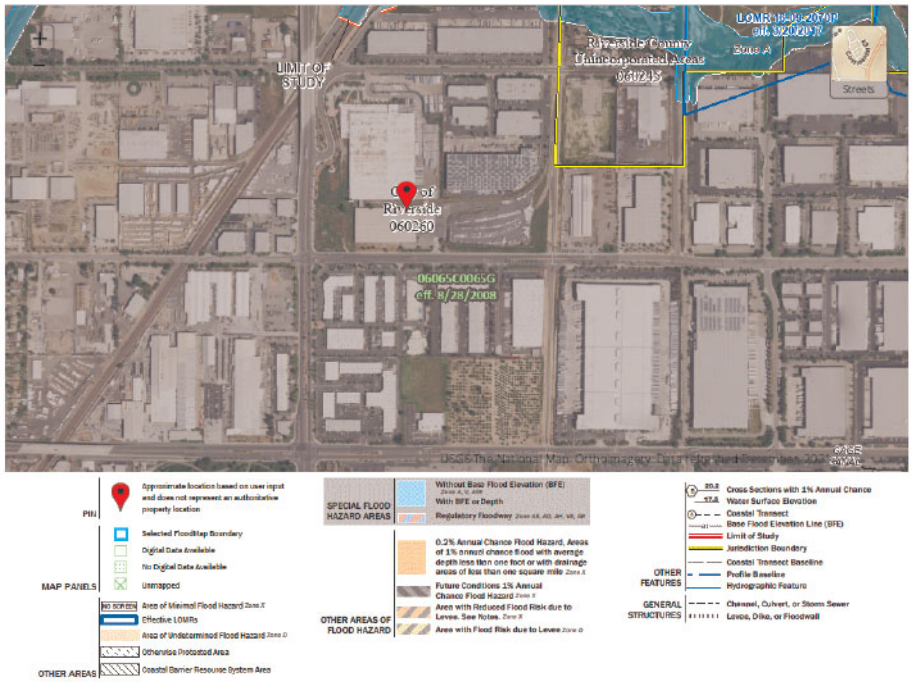
DYNAMIC MAP
PRINT MAP/ FIRMette

MAP IMAGE
DOWNLOAD FIRM PANEL
(https://msc.fema.gov/portal/downloadProduct?productTypeID=FINAL_PRODUCT&productSubTypeID=FIRM_PANEL&productID=06065C0065G)

Changes to this FIRM
- Revisions (5)
- Amendments (0)
- Revalidations (0)

You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette. If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a map specialist (https://msc.fema.gov/portal/resources/contact).

Go To NFHL Viewer » (https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb5



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(https://www.oig.dhs.gov/hotline)

Official website of the Department of Homeland Security

Assessor - County Clerk - Recorder
Riverside County, CA

Property Detail

950 IOWA AVE RIVERSIDE CA 92507	**Assessment No.** 247170030
	APN 247170030
	Property Type Vacant Commercial Land
	Neighborhood Land - Riverside, Canyon Lake, Murrieta, Wildomar, Jurupa Valley
	Acreage 1.67

Legal Description

1.67 ACRES M/L IN PAR 1 PM 210/038 PM 31897 SubdivisionName PM 31897 Acres 001.67 M/L LotType Parcel Parcel 1 RecMapType Parcel Map MapPlatB 210 MapPlatP 038

Value History (Part 1)

Year	Reason Date	Market Value				Factored Base Year Value			
		Land	Improvement	Living Improvement	Total	Land	Improvement	Living Improvement	Total
2018	Other 01/01/2018					$767,903			$767,903
2019	01/01/2019					$783,261			$783,261
2020	01/01/2020					$798,926			$798,926
2020	Transfer 16/10/2020	$1,000,000			$1,000,000	$1,000,000			$1,000,000
2021	01/01/2021					$1,000,000			$1,000,000

Value History (Part 2)

Year	Restricted Value				Assessed Value				Penalty	Exemption	Net Taxable Value
	Land	Improvement	Living Improvement	Total	Land	Improvement	Living Improvement	Total			
2018					$767,903			$767,903			$767,903
2019					$783,261			$783,261			$783,261
2020					$798,926			$798,926			$798,926
2020					$201,074			$201,074			$201,074
2021					$1,000,000			$1,000,000			$1,000,000

Transfer History

Doc #	Sales Price	Date	Vacant Land
2020-0497600	$0	10/16/2020	True
2015-0245796	$10,650,927	6/10/2015	True
2014-0162947	$0	5/5/2014	True
2010-0425203	$0	9/3/2010	True
NAME00003439717	$0	1/1/2005	True
2004-0835805-S	$0	10/22/2004	True
COND00003439714	$0	1/1/2004	True

Features

Land Details

Primary Use	Land Type	Acres	Eff. Frontage	Eff. Depth
Commercial	LandLine 01 / 247170030 / Commercial	1.67	0.00	0.00

Riverside County is not liable for erroneous or incomplete data.
California Revenue and Taxation Code Sec. 408.3 (d)

Date Printed: 5/2/2022

Assessor - County Clerk - Recorder
Riverside County, CA

General Information

Property Address	950 IOWA AVE RIVERSIDE, CA 92507
Assessment No. (PIN)	247170030
APN (GeoCode)	247170030
Property Type	Vacant Commercial Land
TAG	009-133 RIVERSIDE
Acreage	1.67
Doing Business As	
Business Use	

Legal Description
1.67 ACRES M/L IN PAR 1 PM 210/038 PM 31897 SubdivisionName PM 31897 Acres 001.67 M/L LotType Parcel Parcel 1 RecMapType Parcel Map MapPlatB 210 MapPlatP 038



Valuation data as of: **Friday, April 15, 2022**

Valuation data updated weekly.

Transfer History

Date	Document #	Sale Price
10/16/2020	2020-0497600	$0
6/10/2015	2015-0245796	$21,302,000
5/5/2014	2014-0162947	$0
9/3/2010	2010-0425203	$0
1/1/2005	NAME00003439717	$0
10/22/2004	2004-0835805-S	$0
1/1/2004	COND00003439714	$0

Buildings

Buildings does not exist for this account.

Features does not exist for this account.

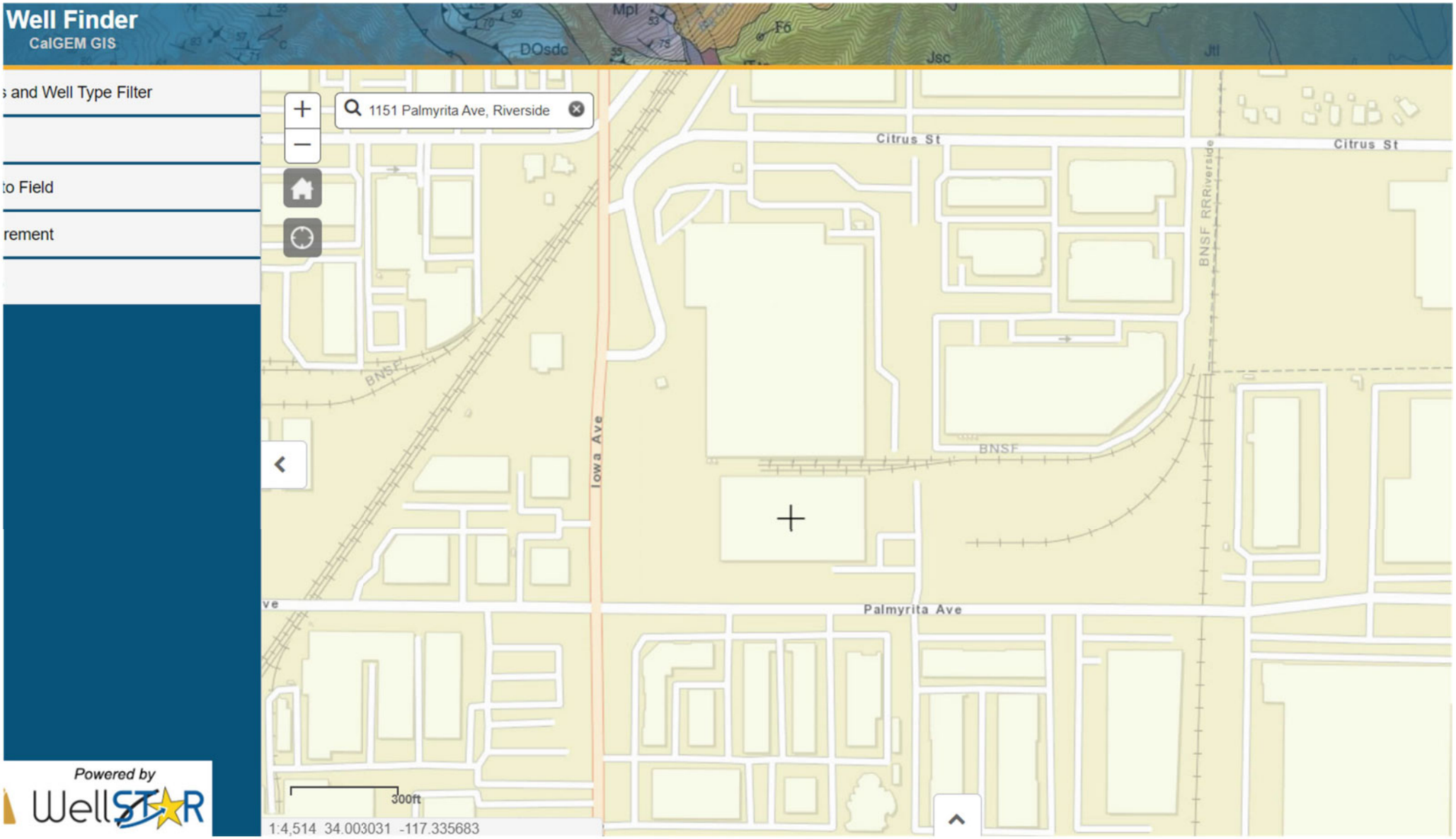
Land

Primary Use	Land Type	Acres	Eff. Frontage	Eff. Depth
Commercial	LandLine 01 / 247170030 / Commercial	1.67	0.00	0.00

Land Use Detail does not exist for this account.

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Well Finder
CalGEM GIS
and Well Type Filter
to Field
rement
1151 Palmyrita Ave, Riverside
Citrus St
Citrus St
BNSF RRRiverside
BNSF
Iowa Ave
BNSF
Palmyrita Ave
300ft
1:4,514 34.003031 -117.335683
Powered by
WellSTAR

County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

REQUEST FOR RECORDS

To help expedite your request, mark the program for which you are requesting records (Call 951-358-5172 if you are uncertain):

☒ Hazardous Materials / Underground Storage Tanks
☒ Land Use / Water Resources / Body Art / Medical Waste / Solid Waste
☐ Food facility / Public Pools and Water Features / Retail Tobacco

- Requests will be responded to within ten (10) business days per California Government Code, sections 6253 and 6256.
- Pursuant to California Government Code section 6254 (f), records of pending investigations and informants' names, addresses, and telephone numbers will not be released.
- **This form is for acquisition of any existing records. Any consultation in reference to these records may be subject to a consultation fee (pursuant to Riverside County Ordinance 640).**
- For access to electronic records available online, visit the public information section at www.rivcoeh.org for more details.

NAME OF REQUESTING PARTY: Janet Tentler	DATE OF REQUEST: April 25, 2022	
BUSINESS NAME (IF ANY): Partner ESI	TELEPHONE NUMBER: ( ) (714) 858-0579	
RETURN LEGAL MAILING ADDRESS: 2154 Torrance Blvd	EMAIL ADDRESS: janet.tentler@gmail.com	
CITY: Torrance	STATE: CA	ZIP: 90501

The following information is required. **List each street address separately.**

INFORMATION REQUESTED: Inspections, Violations, Permits	PERIOD OF TIME TO BE RESEARCHED (If applicable)	
	FROM: 1970	TO: 2022
SITE STREET ADDRESS (1): 1151 Palmyrita Avenue	CITY: Riverside	
SITE STREET ADDRESS (2): 950 Iowa Avenue	CITY: Riverside	
SITE STREET ADDRESS (3):	CITY:	
SITE STREET ADDRESS (4):	CITY:	
SITE STREET ADDRESS (5):	CITY:	
SITE STREET ADDRESS (6):	CITY:	
APN (**For Land Use and Water Resources ONLY**):		

Email this completed form to:

Land Use/Water Resources: landuserecords@rivco.org
Hazardous Materials: DEHRecordsMgmt@rivco.org
All other programs: dehwebmaster@rivco.org

To mail this form, go to http://rivcoeh.org/Contactus for the address of the DEH office closest to the requested location(s).

Duplication costs for records researched and duplicated must be paid upon receipt of records.

FOR OFFICE USE ONLY		
COST OF REPRODUCTION: $_____	EACH ADDITIONAL PAGE: $_____	TOTAL: $_____
REVIEWED BY	TITLE	
RECORDS RECEIVED BY	DATE	

*** IF RECORD REQUEST IS MADE USING ALTERNATE METHOD AND NOT THIS FORM, ATTACH A COPY OF REQUEST TO THIS FORM.**

For our office locations call us at (888) 722-4234 or visit our website at www.rivcoeh.org

APPENDIX C: REGULATORY DATABASE REPORT

PARTNER

DATABASE REPORT

Project Property:	*Dedeaux Palmyrita Riverside* *1151 Palmyrita Avenue* *Riverside CA 92507*
Project No:	*22-367348.1*
Report Type:	*Database Report*
Order No:	*22042000887*
Requested by:	*Partner Engineering and Science, Inc.*
Date Completed:	*April 21, 2022*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

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Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

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Executive Summary

Property Information:

Project Property:		*Dedeaux Palmyrita Riverside* *1151 Palmyrita Avenue Riverside CA 92507*
Project No:		*22-367348.1*
Coordinates:		
	Latitude:	*34.00582445*
	Longitude:	*-117.33659904*
	UTM Northing:	*3,762,814.74*
	UTM Easting:	*468,932.85*
	UTM Zone:	*11S*
Elevation:		*941 FT*

Order Information:

Order No:	*22042000887*
Date Requested:	*April 20, 2022*
Requested by:	*Partner Engineering and Science, Inc.*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (with Project Boundaries)*
City Directory Search	*Smart CD Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*Physical Setting Report (PSR)*
Topographic Map	*Topographic Maps*
Vapor Screening Tool	*Vapor Screening Tool*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
DOE FUSRAP	Y	1	0	0	0	0	0	0
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	1	1	1	-	3
ODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	1	1	1	-	3
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	1	0	1	-	2
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	1	0	1
RCRA TSD	Y	0.5	0	1	0	2	-	3
RCRA LQG	Y	0.25	0	3	0	-	-	3
RCRA SQG	Y	0.25	0	1	5	-	-	6
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	9	14	-	-	23
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	1	2	5	4	12
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWRCB SWF	Y	0.5	0	0	0	0	-	0
WMUD	Y	0.5	0	1	0	0	-	1
HWP	Y	1	0	0	0	1	0	1
SWAT	Y	0.5	0	0	0	0	-	0
C&D DEBRIS RECY	Y	0.5	0	0	0	1	-	1
RECYCLING	Y	0.5	0	0	0	0	-	0
PROCESSORS	Y	0.5	0	0	0	0	-	0
CONTAINER RECY	Y	0.5	0	0	0	0	-	0
LDS	Y	0.5	0	2	0	0	-	2
LUST	Y	0.5	0	0	1	5	-	6
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	2	3	-	-	5
UST SWEEPS	Y	0.25	0	1	2	-	-	3
AST	Y	0.25	0	0	0	-	-	0
AST SWRCB	Y	0.25	0	0	0	-	-	0
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	0	-	-	0
CERS TANK	Y	0.25	0	0	2	-	-	2
DELISTED CTNK	Y	0.25	0	0	0	-	-	0
HIST TANK	Y	0.25	0	2	3	-	-	5
LUR	Y	0.5	0	0	0	0	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
CALSITES	Y	0.5	0	1	1	0	-	2
HLUR	Y	0.5	0	0	0	0	-	0
DEED	Y	0.5	0	1	0	0	-	1
VCP	Y	0.5	0	0	1	0	-	1
CLEANUP SITES	Y	0.5	0	0	0	0	-	0
DELISTED COUNTY	Y	0.25	0	0	0	-	-	0
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED ILST	Y	0.5	0	0	0	0	-	0
DELISTED IUST	Y	0.25	0	0	0	-	-	0
County								
LOP RIVERSIDE	Y	0.5	0	0	1	5	-	6
UST RIVERSIDE	Y	0.25	0	0	0	-	-	0
SANBERN CUPA	Y	0.25	0	0	0	-	-	0
Additional Environmental Records								
Federal								
FINDS/FRS	Y	PO	0	4	-	-	-	4
TRIS	Y	PO	0	-	-	-	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FUDS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
URANIUM	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
SSTS	Y	0.25	0	**1**	0	-	-	**1**
PCB	Y	0.5	0	0	0	0	-	0
State								
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DRYC GRANT	Y	0.25	0	0	0	-	-	0
PFAS	Y	0.5	0	0	0	0	-	0
PFAS GW	Y	0.5	0	0	0	**1**	**1**	**2**
HWSS CLEANUP	Y	0.5	0	0	0	0	-	0
TOXIC PITS	Y	1	0	0	0	0	0	0
DTSC HWF	Y	0.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	0	0	0
CHMIRS	Y	PO	0	**1**	-	-	-	**1**
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	**1**	**4**	-	-	-	**5**
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HW TRANSPORT	Y	0.125	0	0	-	-	-	0
WASTE TIRE	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
HIST CORTESE	Y	0.5	0	0	0	0	-	0
CDO/CAO	Y	0.5	0	0	0	0	-	0
CERS HAZ	Y	0.125	0	**10**	-	-	-	**10**
DELISTED HAZ	Y	0.5	0	0	0	**2**	-	**2**

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
GEOTRACKER	Y	0.125	0	0	-	-	-	0
MINE	Y	1	0	0	0	0	0	0
LIEN	Y	PO	0	-	-	-	-	0
WASTE DISCHG	Y	0.25	0	0	0	-	-	0
EMISSIONS	Y	0.25	0	2	3	-	-	5
CDL	Y	0.125	0	0	-	-	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
HWG RIVERSIDE	Y	0.125	0	5	-	-	-	5
HZH RIVERSIDE	Y	0.125	0	0	-	-	-	0
MED WST RIVERSIDE	Y	0.25	0	0	0	-	-	0
RMP RIVERSIDE	Y	PO	0	-	-	-	-	0
MED WST SANBERN	Y	0.25	0	0	0	-	-	0
Total:			***1***	***55***	***40***	***26***	***5***	***127***

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	HAZNET	ANCON MARINE	1151 PALMARIDA RIVERSIDE CA 925070000	W	0.00 / 0.00	-2	40

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
2	HAZNET	WEST COAST POWER STEAM CLEANING	1220 PALMYRITA AVE RIVERSIDE CA 925070000	WSW	0.01 / 70.98	-9	40
3	FINDS/FRS	IVR HOME HEALTH EQUIPMENT	1240 PALMYRITA AVE #E-H RIVERSIDE CA 92507 ***Registry ID:*** 110065469255	WSW	0.01 / 71.64	-11	41
3	FINDS/FRS	MIRACLE METHOD OF RIVERSIDE	1240 PALMYRITA AVE #L RIVERSIDE CA 92507 ***Registry ID:*** 110070490038	WSW	0.01 / 71.64	-11	41
4	CHMIRS	Emergency Response & Training Solutions	1050 Palmyrta Avenue Riverside CA 92507	ESE	0.01 / 72.07	11	42
5	FINDS/FRS	MBM, INC. (DC04)	1050 PALMYRITA AVE RIVERSIDE CA 92507 ***Registry ID:*** 110055889285	ESE	0.02 / 81.72	11	43
5	HAZNET	SC FUELS	1050 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.02 / 81.72	11	44
5	HAZNET	RYDER TRANSPORTATION	1050 PALMYRITA AVE RIVERSIDE CA 925071700	ESE	0.02 / 81.72	11	44
5	HAZNET	MBM CORP - RIVERSIDE CA DC 04	1050 PALMYRITA AVE RIVERSIDE CA 925071700	ESE	0.02 / 81.72	11	45
5	RCRA NON GEN	MCLANE RIVERSIDE 604	1050 PALMYRITA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC002983059	ESE	0.02 / 81.72	11	46
5	FINDS/FRS	MCLANE RIVERSIDE 604	1050 PALMYRITA AVE RIVERSIDE CA 92507 ***Registry ID:*** 110070405879	ESE	0.02 / 81.72	11	47
6	CERS HAZ	Rotech	1240 PALMYRITA AVE STE G RIVERSIDE CA 92507	WSW	0.02 / 84.91	-12	47
6	RCRA NON GEN	MIRACLE METHOD	1240 PALMYRITE AVENUE SUITE L RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC003156733	WSW	0.02 / 84.91	-12	50

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
7	RCRA LQG	WEST COAST WIRE AND STEEL, INC.	1027 PALMYRITA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000235793	ESE	0.06 / 296.62	23	51
7	CERS HAZ	Allied Steel Co Inc	1027 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.06 / 296.62	23	52
7	RCRA LQG	ALLIED STEEL CO INC	1027 PALMYRITA AVENUE RIVERSIDE CA 92507-1701 ***EPA Handler ID:*** CAL000365650	ESE	0.06 / 296.62	23	60
7	HWG RIVERSIDE	Allied Steel Co Inc	1027 Palmyrita Ave Riverside CA 92507	ESE	0.06 / 296.62	23	61
8	RCRA NON GEN	MIRACLE METHOD OF RIVERSIDE	1240 PALMYRITA AVE #L RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000440638	SW	0.06 / 324.14	-8	61
9	CERS HAZ	Hometeam Pest Defense	1120 PALMYRITA #210 RIVERSIDE CA 92507	S	0.08 / 400.94	0	62
9	CERS HAZ	Trugreen ChemLawn	1130 PALMYRITA AVE #300 RIVERSIDE CA 92507	S	0.08 / 400.94	0	67
9	CERS HAZ	CENTURYLINK - RIVERSIDE - RVSDCAML	1110 PALMYRITA AVE STE 130 RIVERSIDE CA 92507	S	0.08 / 400.94	0	72
9	RCRA NON GEN	TRUGREEN	1130 PALMYRITA AVE STE 300 RIVERSIDE CA 92507-1714 ***EPA Handler ID:*** CAL000182106	S	0.08 / 400.94	0	74
9	RCRA NON GEN	ADT LLC DBA ADT SECURITY SERVICES	1120 PALMYRITA AVE STE 280 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000392001	S	0.08 / 400.94	0	75
9	RCRA NON GEN	DRIP MORE	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC002997775	S	0.08 / 400.94	0	76
9	RCRA TSD	DRIP MORE LLC	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000445174	S	0.08 / 400.94	0	77
9	RCRA NON GEN	DRIP MORE LLC	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000445174	S	0.08 / 400.94	0	78

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
9	HWG RIVERSIDE	Trugreen ChemLawn	1130 Palmyrita Ave #300 Riverside CA 92507	S	0.08 / 400.94	0	80
9	HWG RIVERSIDE	DripMore LLC	1110 Palmyrita Ave Ste #120 Riverside CA 92507	S	0.08 / 400.94	0	80
9	CERS HAZ	Drip More	1110 PALMYRITA AVE STE 150 RIVERSIDE CA 92507	S	0.08 / 400.94	0	80
10	RCRA NON GEN	RA AUTOMOTIVE LLC	725 IOWA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000467874	WNW	0.08 / 417.12	-16	80
11	CERCLIS	LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502 ***Site EPA ID:*** CAD008353799	NW	0.08 / 433.48	-5	81
11	CERCLIS NFRAP	LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502 ***Site EPA ID:*** CAD008353799	NW	0.08 / 433.48	-5	83
11	RCRA LQG	RUST-OLEUM GROUP	800 IOWA AVE. RIVERSIDE CA 92507-0000 ***EPA Handler ID:*** CAD008353799	NW	0.08 / 433.48	-5	84
11	DEED	SWEETHEART CUP COMPANY	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	-5	89
11	LDS	SWEETHEART CUP COMPANY	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	-5	90
11	LDS	BRINE FAC,LILY-TULIP DIV	800 IOWA RIVERSIDE CA	NW	0.08 / 433.48	-5	92
11	ENVIROSTOR	LILY-TULIP CO (OFF SITE DISPOSAL AREA)	800 IOWA AVENUE RIVERSIDE CA 92502 ***Estor/EPA ID	Cleanup Status:*** 33490044 | REFER: OTHER AGENCY AS OF 10/25/1994	NW	0.08 / 433.48	-5	93
11	HHSS	LILY TULIP INC	800 IOWA AVENUE RIVERSIDE CA 92507	NW	0.08 / 433.48	-5	95
11	SEMS ARCHIVE	LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502 ***EPA ID:*** CAD008353799	NW	0.08 / 433.48	-5	95

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
11	EMISSIONS	SWEETHEART CUP CO INC	800 IOWA AVE RIVERSIDE CA 92507	NW	0.08 / 433.48	-5	95
11	EMISSIONS	SWEETHEART CUP CO INC	800 IOWA AV RIVERSIDE CA 92507	NW	0.08 / 433.48	-5	96
11	CERS HAZ	Rustoleum	800 IOWA AVE RIVERSIDE CA 92507	NW	0.08 / 433.48	-5	99
11	HIST TANK	LILY TULIP INC.	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	-5	101
11	HWG RIVERSIDE	Rust-oleum	800 Iowa Ave Riverside CA 92507	NW	0.08 / 433.48	-5	102
11	CALSITES	LILY-TULIP CO (OFF SITE DISPOSAL AREA)	800 IOWA AVENUE RIVERSIDE CA 92502	NW	0.08 / 433.48	-5	102
11	WMUD	BRINE FAC,LILY-TULIP DIV	800 IOWA RIVERSIDE CA	NW	0.08 / 433.48	-5	102
12	CERS HAZ	Doe & Ingalls of CA Operating, LLC	1060 CITRUS ST RIVERSIDE CA 92507	NNE	0.10 / 532.79	16	104
12	HWG RIVERSIDE	Doe & Ingalls of CA Operating, LLC	1060 Citrus St Riverside CA 92507	NNE	0.10 / 532.79	16	108
12	RCRA SQG	DOE AND INGALLS OF CA OPERATING LLC	1060 CITRUS ST RIVERSIDE CA 92507 ***EPA Handler ID:*** CAR000204925	NNE	0.10 / 532.79	16	108
12	RCRA NON GEN	AUDENTES THERAPEUTICS INC	1060 CITRUS STREET RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC003084104	NNE	0.10 / 532.79	16	110
13	HHSS	RIVERSIDE TERMINAL	841 IOWA AVE RIVERSIDE CA 92507	W	0.10 / 543.89	-22	111
13	CERS HAZ	Roofline Supply	841 IOWA AVE RIVERSIDE CA 92507	W	0.10 / 543.89	-22	111

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
13	HIST TANK	RIVERSIDE TERMINAL	841 IOWA AVE. RIVERSIDE CA	W	0.10 / 543.89	-22	116
13	UST SWEEPS	RIVERSIDE TERMINAL	841 IOWA AVE RIVERSIDE CA ***C C	Status:*** A33-000-1122 | ACTIVE ***Tank ID:*** 000003, 000002, 000005, 000001, 000004	W	0.10 / 543.89	-22	116
14	CERS HAZ	Christie Digital Systems USA, Inc.	1080 CITRUS ST RIVERSIDE CA 92507	NNE	0.12 / 639.33	17	117
14	SSTS	CHRISTIE DIGITAL SYSTEMS USA, INC.	1080 CITRUS ST - RIVERSIDE CA 92507 ***Establishment No:*** 97773-CA-2	NNE	0.12 / 639.33	17	119
15	RCRA NON GEN	AMA PLASTICS	1100 CITRUS ST RIVERSIDE CA 92507-1731 ***EPA Handler ID:*** CAL000362435	NNE	0.14 / 722.44	13	120
16	ENVIROSTOR	ALUMAX MILL PRODUCTS, INC.	1495 COLUMBIA AVENUE RIVERSIDE CA 92507 ***Estor/EPA ID | Cleanup Status:*** 71002525 | INACTIVE - NEEDS EVALUATION AS OF	WSW	0.15 / 787.80	-25	121
17	RCRA NON GEN	VETERINARY SERVICE INC.	935 PALMYRITA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC003066382	E	0.15 / 801.85	35	121
18	RCRA NON GEN	JUICED RITE LLC	1229 COLUMBIA AVE SUITE C1 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAC002967521	SW	0.16 / 828.92	-13	122
18	RCRA NON GEN	JUICED RITE LLC	1229 COLUMBIA AVE C1 RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000442930	SW	0.16 / 828.92	-13	123
19	EMISSIONS	MODULAR STRUCTURES INT'L INC	920 CITRUS AV RIVERSIDE CA 92507	ENE	0.17 / 899.23	32	124
20	RCRA SQG	UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAD009537473	ESE	0.18 / 926.32	32	129
20	HHSS	UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA 92707	ESE	0.18 / 926.32	32	131
20	HIST TANK	UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA	ESE	0.18 / 926.32	32	131

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
21	VCP	RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER)	1326 CITRUS STREET RIVERSIDE CA 92507	WNW	0.18 / 938.43	-19	131
			***Estor/EPA ID	Cleanup Status:*** 33330009	NO FURTHER ACTION AS OF 8/5/2019		
21	ENVIROSTOR	RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER)	1326 CITRUS STREET RIVERSIDE CA 92507	WNW	0.18 / 938.43	-19	134
			***Estor/EPA ID	Cleanup Status:*** 33330009	NO FURTHER ACTION AS OF 8/5/2019		
22	RCRA SQG	MODULAR STRUCTURES INTERNATIONAL INC	920 CITRUS AVE RIVERSIDE CA 92507	ENE	0.18 / 970.27	31	137
			EPA Handler ID: CAR000142653				
23	RCRA NON GEN	AMD CONSTRUCTION	1159 IOWA AVENUE, #K RIVERSIDE CA 92507	SW	0.19 / 1,002.71	-21	139
			EPA Handler ID: CAC003151340				
24	CERS TANK	Lineage Logistics	1001 COLUMBIA AVE RIVERSIDE CA 92507	ESE	0.19 / 1,008.44	31	140
			Site ID: 396629				
24	RCRA NON GEN	LINEAGE LOGISTICS ICM LLC	1001 COLUMBIA AVE RIVERSIDE CA 92507	ESE	0.19 / 1,008.44	31	150
			EPA Handler ID: CAL000387150				
25	CERCLIS	RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 925071625	NW	0.19 / 1,027.25	-18	151
			Site EPA ID: CAD983572595				
25	HHSS	RIVERSIDE FOUNDRY	1326 CITRUS RIVERSIDE CA 92507	NW	0.19 / 1,027.25	-18	152
25	HIST TANK	RIVERSIDE FOUNDRY	1326 CITRUS RIVERSIDE CA	NW	0.19 / 1,027.25	-18	153
26	SEMS ARCHIVE	RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 92507	NW	0.19 / 1,027.88	-18	153
			EPA ID: CAD983572595				
26	CALSITES	RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 92507	NW	0.19 / 1,027.88	-18	153
27	RCRA NON GEN	CICO ELECTRICAL CONTRACTORS INC	1215 COLUMBIA AVE STE C4 RIVERSIDE CA 92507	SSW	0.19 / 1,029.24	-9	154
			EPA Handler ID: CAL000436608				
28	RCRA NON GEN	PARAMOUNT LITHOGRAPH	1271 COLUMBIA AVE RIVERSIDE CA 92507-0000	SW	0.20 / 1,051.79	-14	155
			EPA Handler ID: CAL000089639				

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
29	RCRA SQG	K M C WHEEL	1455 COLUMBIA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** CAD981631518	WSW	0.21 / 1,125.03	-25	156
29	EMISSIONS	KMC WHEEL CO INC	1455 COLUMBIA AVE RIVERSIDE CA 92507	WSW	0.21 / 1,125.03	-25	157
29	EMISSIONS	RIVERSIDE GEN MFG CO INC	1455 COLUMBIA AVENUE RIVERSIDE CA 92507	WSW	0.21 / 1,125.03	-25	160
30	RCRA SQG	JOHNSON LIFT HYSTER	1360 CITRUS AVE RIVERSIDE CA 92502 ***EPA Handler ID:*** CA0000133835	WNW	0.22 / 1,154.24	-23	160
31	RCRA NON GEN	WW GRAINGER 441	1151 COLUMBIA AVE RIVERSIDE CA 92507-2113 ***EPA Handler ID:*** CAL000353751	S	0.22 / 1,161.62	-4	161
32	UST SWEEPS	SPARKLETTS DRINKING WATER CORP	1363 CITRUS AVE RIVERSIDE CA ***C C*** **|** ***Status:*** A33-000-64141 | ACTIVE ***Tank ID:*** 000001, 000002	WNW	0.22 / 1,178.20	-23	162
33	HHSS	FOREMOST DAIRIES INC	689 IOWA AVENUE RIVERSIDE CA 92507	NW	0.22 / 1,186.76	-14	163
33	HIST TANK	FOREMOST DAIRIES INC.	689 IOWA AVENUE RIVERSIDE CA	NW	0.22 / 1,186.76	-14	163
33	UST SWEEPS	WESTERN LANDSCAPE	689 IOWA AVE RIVERSIDE CA ***C C*** **|** ***Status:*** A33-000-5778 | ACTIVE ***Tank ID:*** 000003, 000004	NW	0.22 / 1,186.76	-14	163
34	LOP RIVERSIDE	Environmental Care	687 Iowa Ave Riverside CA ***Site ID*** **|** ***Status Desc:*** 9914883 | CLOSED/ACTION COMPLETED	NW	0.23 / 1,191.13	-14	164
34	LUST	ENVIRONMENTAL CARE	687 IOWA AVE RIVERSIDE CA 92507 ***Global ID*** **|** ***Status*** **|** ***Status Date:*** T0606500568 | COMPLETED - CASE CLOSED | 1999-01-27 00:00:00	NW	0.23 / 1,191.13	-14	164
34	RCRA NON GEN	ATHENS SERVICE	687 IOWA AVE RIVERSIDE CA 92507-0000 ***EPA Handler ID:*** CAL000223045	NW	0.23 / 1,191.13	-14	167
35	CERS TANK	Reliable Wholesale Lumber	1450 CITRUS ST RIVERSIDE CA 92507 ***Site ID:*** 180460	W	0.23 / 1,204.24	-34	168
35	RCRA NON GEN	RELIABLE WHOLESALE LUMBER INC	1450 CITRUS ST RIVERSIDE CA 92507	W	0.23 / 1,204.24	-34	173

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
			EPA Handler ID: CAP000220285				
36	RCRA NON GEN	K & N ENGINEERING INC	1380 CITRUS ST RIVERSIDE CA 92507 ***EPA Handler ID:*** CAL000437472	WNW	0.24 / 1,261.59	-26	175
37	RCRA SQG	CALIFORNIA CUSTOM BOTTLES	813 PALMYRITA CT RIVERSIDE CA 92507 ***EPA Handler ID:*** CAR000237057	E	0.24 / 1,273.33	47	176
38	RCRA NON GEN	TRADE MARK PLASTICS INC	807 PALMYRITA AVE RIVERSIDE CA 92507-1805 ***EPA Handler ID:*** CAL000271370	ENE	0.24 / 1,280.77	42	177
39	RCRA NON GEN	DS WATERS OF AMERICA INC	1363 CITRUS ST RIVERSIDE CA 92507-1606 ***EPA Handler ID:*** CAL000205993	WNW	0.25 / 1,296.67	-25	178
40	ENVIROSTOR	INTERSECTION OF IOWA AND COLUMBIA	INTERSECTION OF IOWA AND COLUMBIA RIVERSIDE CA 92507 ***Estor/EPA ID*** | ***Cleanup Status:*** 33000007 | REFER: 1248 LOCAL AGENCY AS OF 6/18/2004	SW	0.26 / 1,381.88	-19	179
41	LOP RIVERSIDE	Alumax Mill	1495 Columbia Ave Riverside CA ***Site ID*** | ***Status Desc:*** 89197 | CLOSED/ACTION COMPLETED	WSW	0.29 / 1,520.59	-30	180
41	ENVIROSTOR	ALUMAX MILL PRODUCTS	1495 COLUMBIA AVE RIVERSIDE CA 92507 ***Estor/EPA ID*** | ***Cleanup Status:*** 60000213 | INACTIVE - NEEDS EVALUATION AS OF 3/6/2006	WSW	0.29 / 1,520.59	-30	180
42	LUST	ALUMAX MILL	1495 COLUMBIA AVE. RIVERSIDE CA 92507 ***Global ID*** | ***Status*** | ***Status Date:*** T0606588288 | COMPLETED - CASE CLOSED | 1989-04-14 00:00:00	SW	0.31 / 1,612.81	-31	181
43	LOP RIVERSIDE	Georgia Pacific Corp	1450 Citrus Ave Riverside CA ***Site ID*** | ***Status Desc:*** 94127 | CLOSED/ACTION COMPLETED	WNW	0.31 / 1,615.36	-35	184
43	LUST	GEORGIA PACIFIC CORP.	1450 CITRUS AVE RIVERSIDE CA 92507 ***Global ID*** | ***Status*** | ***Status Date:*** T0606500364 | COMPLETED - CASE CLOSED | 1995-05-15 00:00:00	WNW	0.31 / 1,615.36	-35	184
44	RCRA TSD	EVEREADY PACIFIC	1499 PALMYRITA RIVERSIDE CA 92507-0000 ***EPA Handler ID:*** CAR000075184	W	0.32 / 1,666.28	-41	189
45	CERCLIS	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507 ***Site EPA ID:*** CAD008255754	SSW	0.34 / 1,788.83	-9	191

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
45	CERCLIS NFRAP	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	-9	193
			Site EPA ID: CAD008255754				
45	RCRA TSD	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	-9	194
			EPA Handler ID: CAD008255754				
45	RCRA CORRACTS	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	-9	199
			EPA Handler ID: CAD008255754				
45	LOP RIVERSIDE	Bourns Inc	1200 Columbia Ave Riverside CA	SSW	0.34 / 1,788.83	-9	206
			Site ID | ***Status Desc:*** 95494 | CLOSED/ACTION COMPLETED				
45	LUST	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	-9	207
			Global ID | ***Status*** | ***Status Date:*** T0606500426 | COMPLETED - CASE CLOSED | 1996-04-12 00:00:00				
45	ENVIROSTOR	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	-9	211
			Estor/EPA ID | ***Cleanup Status:*** CAD008255754 |				
45	ENVIROSTOR	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	-9	212
			Estor/EPA ID | ***Cleanup Status:*** 80001537 | NO ACTION REQUIRED AS OF 6/9/2015				
45	HWP	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	-9	214
			Estor/EPA ID: CAD008255754				
45	SEMS ARCHIVE	BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	-9	215
			EPA ID: CAD008255754				
46	ENVIROSTOR	AC HOFFMAN ENGINEERING	902 COLUMBIA AVE RIVERSIDE CA 92507	SE	0.34 / 1,800.53	30	216
			Estor/EPA ID | ***Cleanup Status:*** 71003801 | INACTIVE - NEEDS EVALUATION AS OF				
47	C&D DEBRIS RECY	AMAZON PAINT	779 PALMYRITA AVE RIVERSIDE CA 92507	E	0.36 / 1,903.16	68	216
48	LOP RIVERSIDE	Johnson Machinery	656 E La Cadena Dr Riverside CA	WNW	0.42 / 2,240.59	-44	216
			Site ID | ***Status Desc:*** 921019 | CLOSED/ACTION COMPLETED				
48	LUST	JOHNSON MACHINERY	656 E LA CADENA DR RIVERSIDE CA 92501	WNW	0.42 / 2,240.59	-44	217
			Global ID | ***Status*** | ***Status Date:*** T0606500137 | COMPLETED - CASE CLOSED | 1997-10-23 00:00:00				
49	DELISTED HAZ	Land Jet Motor Carriers Inc	1280 NORTHGATE ST #6 RIVERSIDE CA 92503	SE	0.44 / 2,304.55	48	220

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
50	DELISTED HAZ	Mackie International Incorporated	719 PALMYRITA AVE RIVERSIDE CA 92507	E	0.44 / 2,327.71	80	220
51	PFAS GW		CA	NW	0.46 / 2,412.45	-56	220
52	LOP RIVERSIDE	Johnson Machinery	800 E La Cadena Dr Riverside CA	W	0.50 / 2,637.66	-57	230
			Site ID **|** ***Status Desc:*** 94715	CLOSED/ACTION COMPLETED			
52	LUST	JOHNSON MACHINERY	800 E LA CADENA DR RIVERSIDE CA 92501	W	0.50 / 2,637.66	-57	230
			Global ID **|** ***Status*** **|** ***Status Date:*** T0606500424	COMPLETED - CASE CLOSED	1994-11-17 00:00:00		
53	PFAS GW		CA	W	0.50 / 2,640.32	-58	234
54	ENVIROSTOR	MCKESSON CHEMICAL COMPANY	1575 MARLBOROUGH RIVERSIDE CA 92507	SW	0.61 / 3,209.78	-42	246
			Estor/EPA ID **|** ***Cleanup Status:*** 60000207	INACTIVE - NEEDS EVALUATION AS OF 3/6/2006			
55	ENVIROSTOR	K/J PLATING, INC.	21750 MAIN STREET GRAND TERRACE CA 92324	NNE	0.93 / 4,916.70	13	246
			Estor/EPA ID **|** ***Cleanup Status:*** 71002735	NO FURTHER ACTION AS OF 6/3/2009			
56	ENVIROSTOR	K & J ENTERPRISES	21750 MAIN STREET GRAND TERRACE CA 92324	NNE	0.93 / 4,916.78	13	248
			Estor/EPA ID **|** ***Cleanup Status:*** 36340037	CERTIFIED / OPERATION & MAINTENANCE AS OF 5/10/2013			
57	ENVIROSTOR	VALERION CORPORATION	2280 IOWA AVENUE RIVERSIDE CA 92507	SSW	0.98 / 5,148.49	24	259
			Estor/EPA ID **|** ***Cleanup Status:*** 33280139	REFER: OTHER AGENCY AS OF 8/12/1988			

Executive Summary: Summary by Data Source

Standard

Federal

SEMS ARCHIVE - SEMS List 8R Archive Sites

A search of the SEMS ARCHIVE database, dated Feb 24, 2022 has found that there are 3 SEMS ARCHIVE site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502 ***EPA ID:*** *CAD008353799*	NW	0.08 / 433.48	11
RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 92507 ***EPA ID:*** *CAD983572595*	NW	0.19 / 1,027.88	26
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507 ***EPA ID:*** *CAD008255754*	SSW	0.34 / 1,788.83	45

CERCLIS - Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS

A search of the CERCLIS database, dated Oct 25, 2013 has found that there are 3 CERCLIS site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502 ***Site EPA ID:*** *CAD008353799*	NW	0.08 / 433.48	11
RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 925071625 ***Site EPA ID:*** *CAD983572595*	NW	0.19 / 1,027.25	25
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507 ***Site EPA ID:*** *CAD008255754*	SSW	0.34 / 1,788.83	45

CERCLIS NFRAP - CERCLIS - No Further Remedial Action Planned

A search of the CERCLIS NFRAP database, dated Oct 25, 2013 has found that there are 2 CERCLIS NFRAP site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY-TULIP INC	800 IOWA AVE RIVERSIDE CA 92502	NW	0.08 / 433.48	11

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	Site EPA ID: *CAD008353799*			
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	45
	Site EPA ID: *CAD008255754*			

RCRA CORRACTS - RCRA CORRACTS-Corrective Action

A search of the RCRA CORRACTS database, dated Jan 31, 2022 has found that there are 1 RCRA CORRACTS site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	45
	EPA Handler ID: *CAD008255754*			

RCRA TSD - RCRA non-CORRACTS TSD Facilities

A search of the RCRA TSD database, dated Jan 31, 2022 has found that there are 3 RCRA TSD site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
DRIP MORE LLC	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507	S	0.08 / 400.94	9
	EPA Handler ID: *CAL000445174*			
EVEREADY PACIFIC	1499 PALMYRITA RIVERSIDE CA 92507-0000	W	0.32 / 1,666.28	44
	EPA Handler ID: *CAR000075184*			
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	45
	EPA Handler ID: *CAD008255754*			

RCRA LQG - RCRA Generator List

A search of the RCRA LQG database, dated Jan 31, 2022 has found that there are 3 RCRA LQG site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ALLIED STEEL CO INC	1027 PALMYRITA AVENUE RIVERSIDE CA 92507-1701	ESE	0.06 / 296.62	7
	EPA Handler ID: *CAL000365650*			
WEST COAST WIRE AND STEEL, INC.	1027 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.06 / 296.62	7
	EPA Handler ID: *CAL000235793*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
RUST-OLEUM GROUP	800 IOWA AVE. RIVERSIDE CA 92507-0000 ***EPA Handler ID:*** *CAD008353799*	NW	0.08 / 433.48	11

RCRA SQG - RCRA Small Quantity Generators List

A search of the RCRA SQG database, dated Jan 31, 2022 has found that there are 6 RCRA SQG site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
DOE AND INGALLS OF CA OPERATING LLC	1060 CITRUS ST RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAR000204925*	NNE	0.10 / 532.79	12
UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAD009537473*	ESE	0.18 / 926.32	20
MODULAR STRUCTURES INTERNATIONAL INC	920 CITRUS AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAR000142653*	ENE	0.18 / 970.27	22
CALIFORNIA CUSTOM BOTTLES	813 PALMYRITA CT RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAR000237057*	E	0.24 / 1,273.33	37

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
K M C WHEEL	1455 COLUMBIA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAD981631518*	WSW	0.21 / 1,125.03	29
JOHNSON LIFT HYSTER	1360 CITRUS AVE RIVERSIDE CA 92502 ***EPA Handler ID:*** *CA0000133835*	WNW	0.22 / 1,154.24	30

RCRA NON GEN - RCRA Non-Generators

A search of the RCRA NON GEN database, dated Jan 31, 2022 has found that there are 23 RCRA NON GEN site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MCLANE RIVERSIDE 604	1050 PALMYRITA AVE RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAC002983059*	ESE	0.02 / 81.72	5
AUDENTES THERAPEUTICS INC	1060 CITRUS STREET RIVERSIDE CA 92507 ***EPA Handler ID:*** *CAC003084104*	NNE	0.10 / 532.79	12

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
AMA PLASTICS	1100 CITRUS ST RIVERSIDE CA 92507-1731 ***EPA Handler ID: CAL000362435***	NNE	0.14 / 722.44	15
VETERINARY SERVICE INC.	935 PALMYRITA AVE RIVERSIDE CA 92507 ***EPA Handler ID: CAC003066382***	E	0.15 / 801.85	17
LINEAGE LOGISTICS ICM LLC	1001 COLUMBIA AVE RIVERSIDE CA 92507 ***EPA Handler ID: CAL000387150***	ESE	0.19 / 1,008.44	24
TRADE MARK PLASTICS INC	807 PALMYRITA AVE RIVERSIDE CA 92507-1805 ***EPA Handler ID: CAL000271370***	ENE	0.24 / 1,280.77	38

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
MIRACLE METHOD	1240 PALMYRITE AVENUE SUITE L RIVERSIDE CA 92507 ***EPA Handler ID: CAC003156733***	WSW	0.02 / 84.91	6
MIRACLE METHOD OF RIVERSIDE	1240 PALMYRITA AVE #L RIVERSIDE CA 92507 ***EPA Handler ID: CAL000440638***	SW	0.06 / 324.14	8
DRIP MORE LLC	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507 ***EPA Handler ID: CAL000445174***	S	0.08 / 400.94	9
DRIP MORE	1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507 ***EPA Handler ID: CAC002997775***	S	0.08 / 400.94	9
ADT LLC DBA ADT SECURITY SERVICES	1120 PALMYRITA AVE STE 280 RIVERSIDE CA 92507 ***EPA Handler ID: CAL000392001***	S	0.08 / 400.94	9
TRUGREEN	1130 PALMYRITA AVE STE 300 RIVERSIDE CA 92507-1714 ***EPA Handler ID: CAL000182106***	S	0.08 / 400.94	9
RA AUTOMOTIVE LLC	725 IOWA AVE RIVERSIDE CA 92507 ***EPA Handler ID: CAL000467874***	WNW	0.08 / 417.12	10
JUICED RITE LLC	1229 COLUMBIA AVE C1 RIVERSIDE CA 92507 ***EPA Handler ID: CAL000442930***	SW	0.16 / 828.92	18
JUICED RITE LLC	1229 COLUMBIA AVE SUITE C1 RIVERSIDE CA 92507	SW	0.16 / 828.92	18

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	EPA Handler ID: *CAC002967521*			
AMD CONSTRUCTION	1159 IOWA AVENUE, #K RIVERSIDE CA 92507	SW	0.19 / 1,002.71	23
	EPA Handler ID: *CAC003151340*			
CICO ELECTRICAL CONTRACTORS INC	1215 COLUMBIA AVE STE C4 RIVERSIDE CA 92507	SSW	0.19 / 1,029.24	27
	EPA Handler ID: *CAL000436608*			
PARAMOUNT LITHOGRAPH	1271 COLUMBIA AVE RIVERSIDE CA 92507-0000	SW	0.20 / 1,051.79	28
	EPA Handler ID: *CAL000089639*			
WW GRAINGER 441	1151 COLUMBIA AVE RIVERSIDE CA 92507-2113	S	0.22 / 1,161.62	31
	EPA Handler ID: *CAL000353751*			
ATHENS SERVICE	687 IOWA AVE RIVERSIDE CA 92507-0000	NW	0.23 / 1,191.13	34
	EPA Handler ID: *CAL000223045*			
RELIABLE WHOLESALE LUMBER INC	1450 CITRUS ST RIVERSIDE CA 92507	W	0.23 / 1,204.24	35
	EPA Handler ID: *CAP000220285*			
K & N ENGINEERING INC	1380 CITRUS ST RIVERSIDE CA 92507	WNW	0.24 / 1,261.59	36
	EPA Handler ID: *CAL000437472*			
DS WATERS OF AMERICA INC	1363 CITRUS ST RIVERSIDE CA 92507-1606	WNW	0.25 / 1,296.67	39
	EPA Handler ID: *CAL000205993*			

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Jan 6, 2022 has found that there are 12 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
AC HOFFMAN ENGINEERING	902 COLUMBIA AVE RIVERSIDE CA 92507	SE	0.34 / 1,800.53	46
	***Estor/EPA ID	Cleanup Status:*** *71003801	INACTIVE - NEEDS EVALUATION AS OF*		
K/J PLATING, INC.	21750 MAIN STREET GRAND TERRACE CA 92324	NNE	0.93 / 4,916.70	55
	***Estor/EPA ID	Cleanup Status:*** *71002735	NO FURTHER ACTION AS OF 6/3/2009*		
K & J ENTERPRISES	21750 MAIN STREET GRAND TERRACE CA 92324	NNE	0.93 / 4,916.78	56

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	***Estor/EPA ID** | **Cleanup Status**: 36340037 | CERTIFIED / OPERATION & MAINTENANCE AS OF 5/10/2013*			
VALERION CORPORATION	2280 IOWA AVENUE RIVERSIDE CA 92507	SSW	0.98 / 5,148.49	57
	***Estor/EPA ID** | **Cleanup Status**: 33280139 | REFER: OTHER AGENCY AS OF 8/12/1988*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY-TULIP CO (OFF SITE DISPOSAL AREA)	800 IOWA AVENUE RIVERSIDE CA 92502	NW	0.08 / 433.48	11
	***Estor/EPA ID** | **Cleanup Status**: 33490044 | REFER: OTHER AGENCY AS OF 10/25/1994*			
ALUMAX MILL PRODUCTS, INC.	1495 COLUMBIA AVENUE RIVERSIDE CA 92507	WSW	0.15 / 787.80	16
	***Estor/EPA ID** | **Cleanup Status**: 71002525 | INACTIVE - NEEDS EVALUATION AS OF*			
RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER)	1326 CITRUS STREET RIVERSIDE CA 92507	WNW	0.18 / 938.43	21
	***Estor/EPA ID** | **Cleanup Status**: 33330009 | NO FURTHER ACTION AS OF 8/5/2019*			
INTERSECTION OF IOWA AND COLUMBIA	INTERSECTION OF IOWA AND COLUMBIA RIVERSIDE CA 92507	SW	0.26 / 1,381.88	40
	***Estor/EPA ID** | **Cleanup Status**: 33000007 | REFER: 1248 LOCAL AGENCY AS OF 6/18/2004*			
ALUMAX MILL PRODUCTS	1495 COLUMBIA AVE RIVERSIDE CA 92507	WSW	0.29 / 1,520.59	41
	***Estor/EPA ID** | **Cleanup Status**: 60000213 | INACTIVE - NEEDS EVALUATION AS OF 3/6/2006*			
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	45
	***Estor/EPA ID** | **Cleanup Status**: CAD008255754 |*			
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	45
	***Estor/EPA ID** | **Cleanup Status**: 80001537 | NO ACTION REQUIRED AS OF 6/9/2015*			
MCKESSON CHEMICAL COMPANY	1575 MARLBOROUGH RIVERSIDE CA 92507	SW	0.61 / 3,209.78	54
	***Estor/EPA ID** | **Cleanup Status**: 60000207 | INACTIVE - NEEDS EVALUATION AS OF 3/6/2006*			

WMUD - Waste Management Unit Database

A search of the WMUD database, dated Jan 1, 2000 has found that there are 1 WMUD site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
BRINE FAC,LILY-TULIP DIV	800 IOWA RIVERSIDE CA	NW	0.08 / 433.48	11

HWP - EnviroStor Hazardous Waste Facilities

A search of the HWP database, dated Jan 6, 2022 has found that there are 1 HWP site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 925070000	SSW	0.34 / 1,788.83	45
	Estor/EPA ID: *CAD008255754*			

C&D DEBRIS RECY - Construction and Demolition Debris Recyclers

A search of the C&D DEBRIS RECY database, dated Jun 20, 2018 has found that there are 1 C&D DEBRIS RECY site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
AMAZON PAINT	779 PALMYRITA AVE RIVERSIDE CA 92507	E	0.36 / 1,903.16	47

LDS - Land Disposal Sites

A search of the LDS database, dated Feb 15, 2022 has found that there are 2 LDS site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
BRINE FAC,LILY-TULIP DIV	800 IOWA RIVERSIDE CA	NW	0.08 / 433.48	11
SWEETHEART CUP COMPANY	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	11

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Feb 15, 2022 has found that there are 6 LUST site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ENVIRONMENTAL CARE	687 IOWA AVE RIVERSIDE CA 92507	NW	0.23 / 1,191.13	34
	Global ID | Status | Status Date: *T0606500568 | COMPLETED - CASE CLOSED | 1999-01-27 00:00:00*			
ALUMAX MILL	1495 COLUMBIA AVE. RIVERSIDE CA 92507	SW	0.31 / 1,612.81	42
	Global ID | Status | Status Date: *T0606588288 | COMPLETED - CASE CLOSED | 1989-04-14 00:00:00*			
GEORGIA PACIFIC CORP.	1450 CITRUS AVE RIVERSIDE CA 92507	WNW	0.31 / 1,615.36	43
	Global ID | Status | Status Date: *T0606500364 | COMPLETED - CASE CLOSED | 1995-05-15 00:00:00*			
BOURNS INC	1200 COLUMBIA AVE RIVERSIDE CA 92507	SSW	0.34 / 1,788.83	45

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	***Global ID	Status	Status Date:*** *T0606500426	COMPLETED - CASE CLOSED	1996-04-12 00:00:00*			
JOHNSON MACHINERY	656 E LA CADENA DR RIVERSIDE CA 92501	WNW	0.42 / 2,240.59	48
	***Global ID	Status	Status Date:*** *T0606500137	COMPLETED - CASE CLOSED	1997-10-23 00:00:00*			
JOHNSON MACHINERY	800 E LA CADENA DR RIVERSIDE CA 92501	W	0.50 / 2,637.66	52
	***Global ID	Status	Status Date:*** *T0606500424	COMPLETED - CASE CLOSED	1994-11-17 00:00:00*			

HHSS - Historical Hazardous Substance Storage Information Database

A search of the HHSS database, dated Aug 27, 2015 has found that there are 5 HHSS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA 92707	ESE	0.18 / 926.32	20

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY TULIP INC	800 IOWA AVENUE RIVERSIDE CA 92507	NW	0.08 / 433.48	11
RIVERSIDE TERMINAL	841 IOWA AVE RIVERSIDE CA 92507	W	0.10 / 543.89	13
RIVERSIDE FOUNDRY	1326 CITRUS RIVERSIDE CA 92507	NW	0.19 / 1,027.25	25
FOREMOST DAIRIES INC	689 IOWA AVENUE RIVERSIDE CA 92507	NW	0.22 / 1,186.76	33

UST SWEEPS - Statewide Environmental Evaluation and Planning System

A search of the UST SWEEPS database, dated Oct 1, 1994 has found that there are 3 UST SWEEPS site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
RIVERSIDE TERMINAL	841 IOWA AVE RIVERSIDE CA	W	0.10 / 543.89	13
	***C C	Status:*** *A33-000-1122	ACTIVE* ***Tank ID:*** *000003, 000002, 000005, 000001, 000004*		
SPARKLETTS DRINKING WATER CORP	1363 CITRUS AVE RIVERSIDE CA	WNW	0.22 / 1,178.20	32

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	***C C	Status:** A33-000-64141	ACTIVE* ***Tank ID:** 000001, 000002*			
WESTERN LANDSCAPE	689 IOWA AVE RIVERSIDE CA	NW	0.22 / 1,186.76	33
	***C C	Status:** A33-000-5778	ACTIVE* ***Tank ID:** 000003, 000004*			

CERS TANK - California Environmental Reporting System (CERS) Tanks

A search of the CERS TANK database, dated Apr 5, 2022 has found that there are 2 CERS TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Lineage Logistics	1001 COLUMBIA AVE RIVERSIDE CA 92507 ***Site ID:** 396629*	ESE	0.19 / 1,008.44	24

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Reliable Wholesale Lumber	1450 CITRUS ST RIVERSIDE CA 92507 ***Site ID:** 180460*	W	0.23 / 1,204.24	35

HIST TANK - Historical Hazardous Substance Storage Container Information - Facility Summary

A search of the HIST TANK database, dated May 27, 1988 has found that there are 5 HIST TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
UARCO INCORPORATED	990 PALMYRITA AVENUE RIVERSIDE CA	ESE	0.18 / 926.32	20

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY TULIP INC.	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	11
RIVERSIDE TERMINAL	841 IOWA AVE. RIVERSIDE CA	W	0.10 / 543.89	13
RIVERSIDE FOUNDRY	1326 CITRUS RIVERSIDE CA	NW	0.19 / 1,027.25	25
FOREMOST DAIRIES INC.	689 IOWA AVENUE RIVERSIDE CA	NW	0.22 / 1,186.76	33

CALSITES - CALSITES Database

A search of the CALSITES database, dated May 1, 2004 has found that there are 2 CALSITES site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LILY-TULIP CO (OFF SITE DISPOSAL AREA)	800 IOWA AVENUE RIVERSIDE CA 92502	NW	0.08 / 433.48	11
RIVERSIDE FOUNDRY	1326 CITRUS AVENUE RIVERSIDE CA 92507	NW	0.19 / 1,027.88	26

DEED - Deed Restrictions and Land Use Restrictions

A search of the DEED database, dated Feb 15, 2022 has found that there are 1 DEED site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
SWEETHEART CUP COMPANY	800 IOWA AVENUE RIVERSIDE CA	NW	0.08 / 433.48	11

VCP - Voluntary Cleanup Program

A search of the VCP database, dated Jan 6, 2022 has found that there are 1 VCP site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER)	1326 CITRUS STREET RIVERSIDE CA 92507	WNW	0.18 / 938.43	21
	***Estor/EPA ID** | **Cleanup Status**: 33330009 | NO FURTHER ACTION AS OF 8/5/2019*			

County

LOP RIVERSIDE - Riverside County - Local Oversight Program List

A search of the LOP RIVERSIDE database, dated Jan 18, 2022 has found that there are 6 LOP RIVERSIDE site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Environmental Care	687 Iowa Ave Riverside CA	NW	0.23 / 1,191.13	34
	***Site ID** | **Status Desc**: 9914883 | CLOSED/ACTION COMPLETED*			
Alumax Mill	1495 Columbia Ave Riverside CA	WSW	0.29 / 1,520.59	41
	***Site ID** | **Status Desc**: 89197 | CLOSED/ACTION COMPLETED*			
Georgia Pacific Corp	1450 Citrus Ave Riverside CA	WNW	0.31 / 1,615.36	43

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	***Site ID** | **Status Desc**: 94127 | CLOSED/ACTION COMPLETED*			
Bourns Inc	1200 Columbia Ave Riverside CA	SSW	0.34 / 1,788.83	45
	***Site ID** | **Status Desc**: 95494 | CLOSED/ACTION COMPLETED*			
Johnson Machinery	656 E La Cadena Dr Riverside CA	WNW	0.42 / 2,240.59	48
	***Site ID** | **Status Desc**: 921019 | CLOSED/ACTION COMPLETED*			
Johnson Machinery	800 E La Cadena Dr Riverside CA	W	0.50 / 2,637.66	52
	***Site ID** | **Status Desc**: 94715 | CLOSED/ACTION COMPLETED*			

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Nov 2, 2020 has found that there are 4 FINDS/FRS site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MBM, INC. (DC04)	1050 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.02 / 81.72	5
	Registry ID: 110055889285			
MCLANE RIVERSIDE 604	1050 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.02 / 81.72	5
	Registry ID: 110070405879			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
IVR HOME HEALTH EQUIPMENT	1240 PALMYRITA AVE #E-H RIVERSIDE CA 92507	WSW	0.01 / 71.64	3
	Registry ID: 110065469255			
MIRACLE METHOD OF RIVERSIDE	1240 PALMYRITA AVE #L RIVERSIDE CA 92507	WSW	0.01 / 71.64	3
	Registry ID: 110070490038			

SSTS - Registered Pesticide Establishments

A search of the SSTS database, dated Mar 30, 2022 has found that there are 1 SSTS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
CHRISTIE DIGITAL SYSTEMS USA, INC.	1080 CITRUS ST - RIVERSIDE CA 92507	NNE	0.12 / 639.33	14

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	Establishment No: 97773-CA-2			

State

PFAS GW - PFOA/PFOS Groundwater

A search of the PFAS GW database, dated Oct 22, 2020 has found that there are 2 PFAS GW site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	CA	NW	0.46 / 2,412.45	51
	CA	W	0.50 / 2,640.32	53

CHMIRS - California Hazardous Material Incident Report System (CHMIRS)

A search of the CHMIRS database, dated Feb 8, 2022 has found that there are 1 CHMIRS site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Emergency Response & Training Solutions	1050 Palmyrta Avenue Riverside CA 92507	ESE	0.01 / 72.07	4

HAZNET - Hazardous Waste Manifest Data

A search of the HAZNET database, dated Oct 24, 2016 has found that there are 5 HAZNET site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
RYDER TRANSPORTATION	1050 PALMYRITA AVE RIVERSIDE CA 925071700	ESE	0.02 / 81.72	5
MBM CORP - RIVERSIDE CA DC 04	1050 PALMYRITA AVE RIVERSIDE CA 925071700	ESE	0.02 / 81.72	5
SC FUELS	1050 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.02 / 81.72	5

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ANCON MARINE	1151 PALMARIDA RIVERSIDE CA 925070000	W	0.00 / 0.00	1

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
WEST COAST POWER STEAM CLEANING	1220 PALMYRITA AVE RIVERSIDE CA 925070000	WSW	0.01 / 70.98	2

CERS HAZ - California Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the CERS HAZ database, dated Apr 5, 2022 has found that there are 10 CERS HAZ site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Allied Steel Co Inc	1027 PALMYRITA AVE RIVERSIDE CA 92507	ESE	0.06 / 296.62	7
Doe & Ingalls of CA Operating, LLC	1060 CITRUS ST RIVERSIDE CA 92507	NNE	0.10 / 532.79	12
Christie Digital Systems USA, Inc.	1080 CITRUS ST RIVERSIDE CA 92507	NNE	0.12 / 639.33	14

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Rotech	1240 PALMYRITA AVE STE G RIVERSIDE CA 92507	WSW	0.02 / 84.91	6
CENTURYLINK - RIVERSIDE - RVSDCAML	1110 PALMYRITA AVE STE 130 RIVERSIDE CA 92507	S	0.08 / 400.94	9
Trugreen ChemLawn	1130 PALMYRITA AVE #300 RIVERSIDE CA 92507	S	0.08 / 400.94	9
Hometeam Pest Defense	1120 PALMYRITA #210 RIVERSIDE CA 92507	S	0.08 / 400.94	9
Drip More	1110 PALMYRITA AVE STE 150 RIVERSIDE CA 92507	S	0.08 / 400.94	9
Rustoleum	800 IOWA AVE RIVERSIDE CA 92507	NW	0.08 / 433.48	11
Roofline Supply	841 IOWA AVE RIVERSIDE CA 92507	W	0.10 / 543.89	13

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key

DELISTED HAZ - Delisted Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the DELISTED HAZ database, dated Nov 29, 2018 has found that there are 2 DELISTED HAZ site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Land Jet Motor Carriers Inc	1280 NORTHGATE ST #6 RIVERSIDE CA 92503	SE	0.44 / 2,304.55	49
Mackie International Incorporated	719 PALMYRITA AVE RIVERSIDE CA 92507	E	0.44 / 2,327.71	50

EMISSIONS - Toxic Pollutant Emissions Facilities

A search of the EMISSIONS database, dated Dec 31, 2019 has found that there are 5 EMISSIONS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MODULAR STRUCTURES INT'L INC	920 CITRUS AV RIVERSIDE CA 92507	ENE	0.17 / 899.23	19

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
SWEETHEART CUP CO INC	800 IOWA AV RIVERSIDE CA 92507	NW	0.08 / 433.48	11
SWEETHEART CUP CO INC	800 IOWA AVE RIVERSIDE CA 92507	NW	0.08 / 433.48	11
RIVERSIDE GEN MFG CO INC	1455 COLUMBIA AVENUE RIVERSIDE CA 92507	WSW	0.21 / 1,125.03	29
KMC WHEEL CO INC	1455 COLUMBIA AVE RIVERSIDE CA 92507	WSW	0.21 / 1,125.03	29

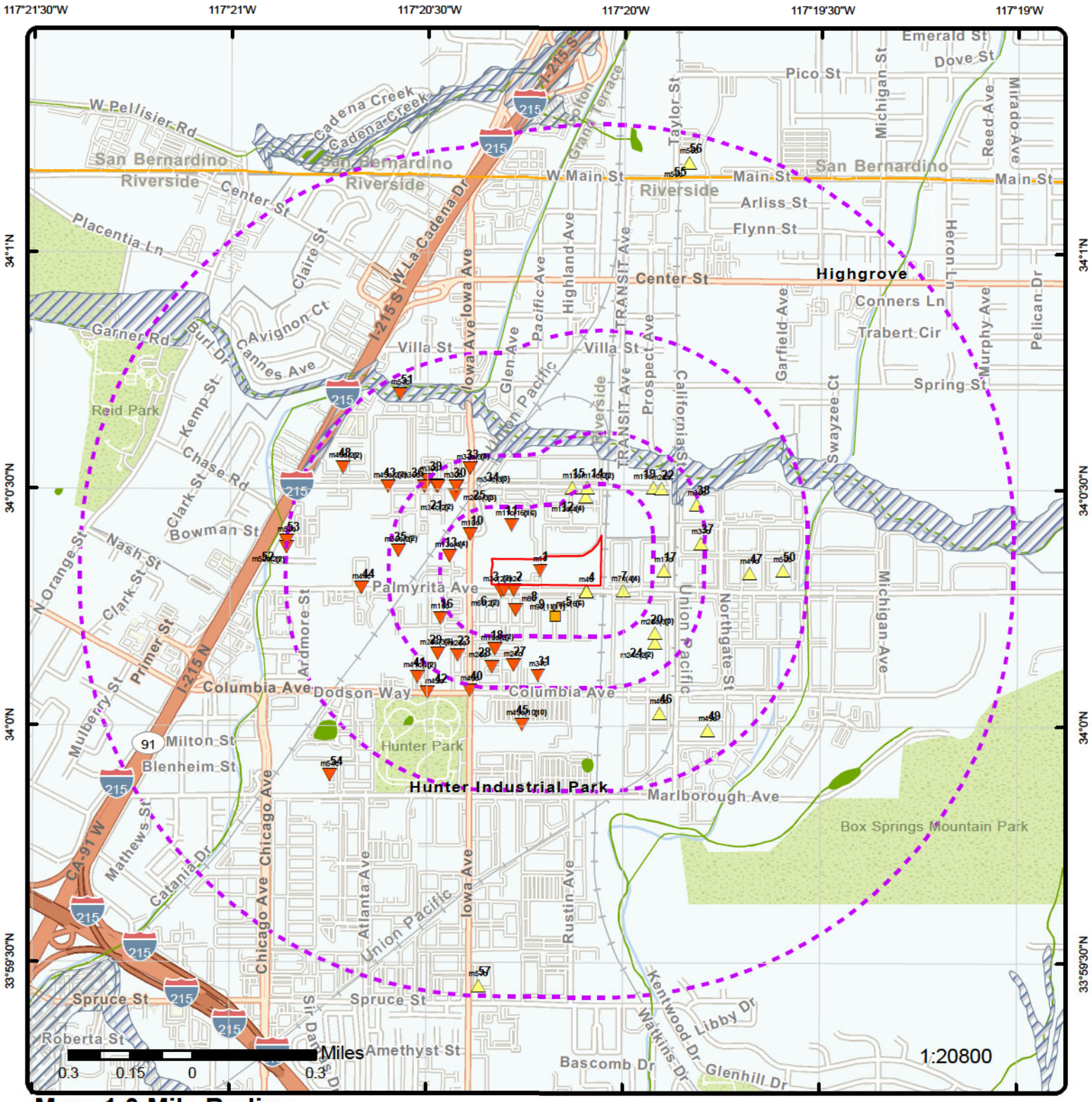
County

HWG RIVERSIDE - Riverside County - Hazardous Waste Generator Sites List

A search of the HWG RIVERSIDE database, dated Jan 18, 2022 has found that there are 5 HWG RIVERSIDE site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Allied Steel Co Inc	1027 Palmyrita Ave Riverside CA 92507	ESE	0.06 / 296.62	7
Doe & Ingalls of CA Operating, LLC	1060 Citrus St Riverside CA 92507	NNE	0.10 / 532.79	12

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
DripMore LLC	1110 Palmyrita Ave Ste #120 Riverside CA 92507	S	0.08 / 400.94	9
Trugreen ChemLawn	1130 Palmyrita Ave #300 Riverside CA 92507	S	0.08 / 400.94	9
Rust-oleum	800 Iowa Ave Riverside CA 92507	NW	0.08 / 433.48	11



Map: 1.0 Mile Radius

Order Number: 22042000887

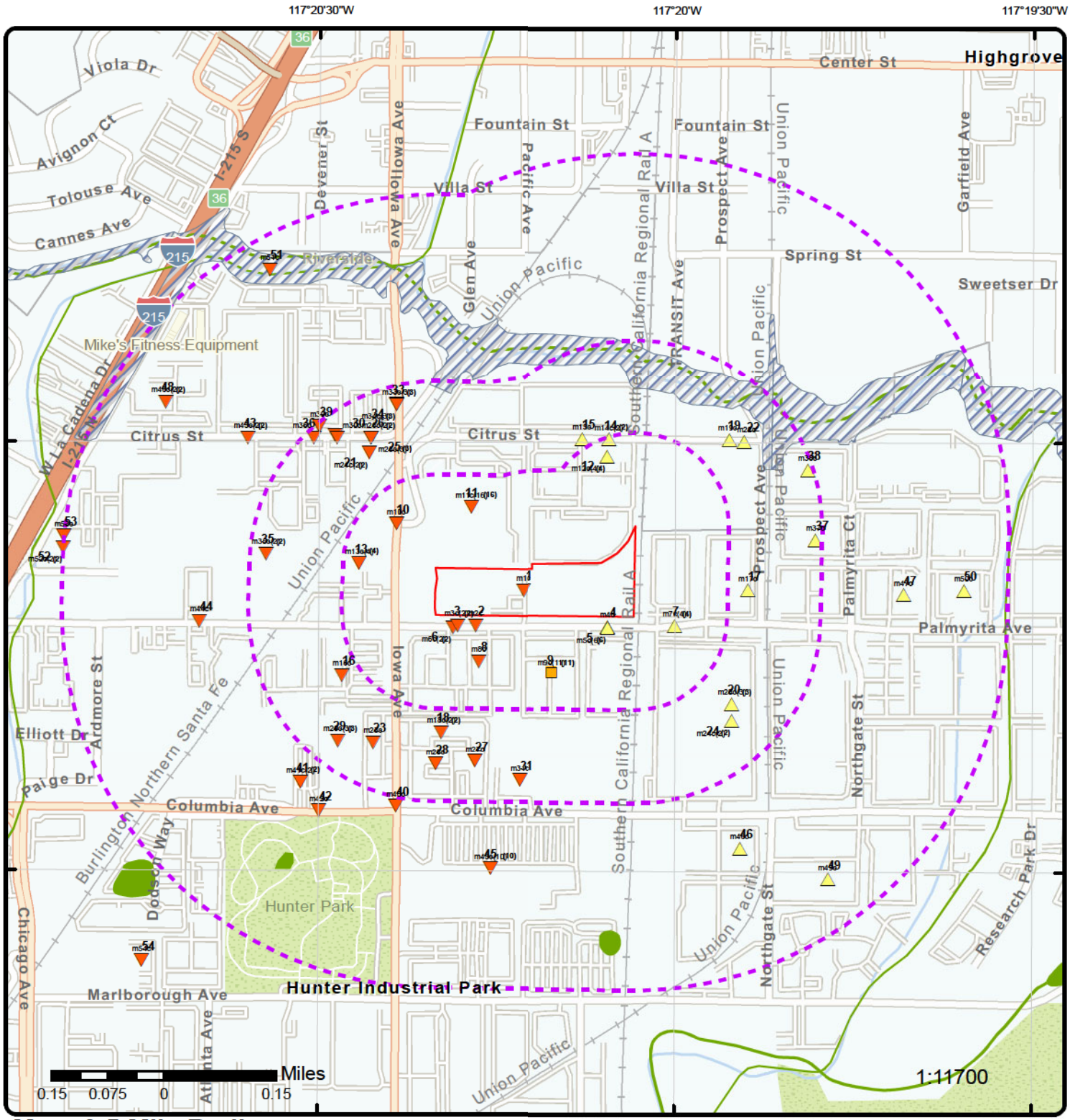
Address: 1151 Palmyrita Avenue, Riverside, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

Source: © 2021 ESRI StreetMap Premium

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Map: 0.5 Mile Radius

Order Number: 22042000887

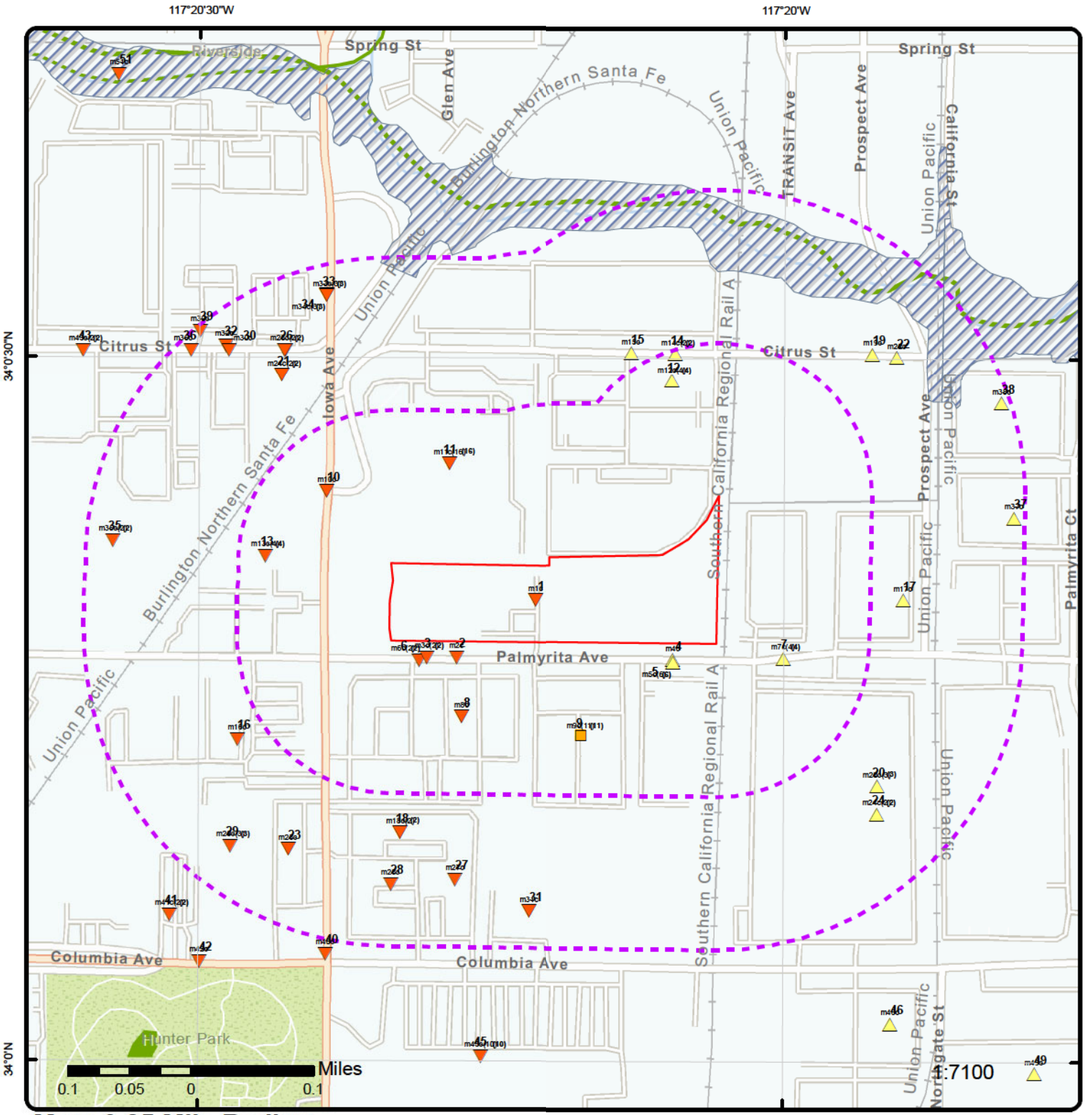
Address: 1151 Palmyrita Avenue, Riverside, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

Source: © 2021 ESRI StreetMap Premium

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Map: 0.25 Mile Radius

Order Number: 22042000887

Address: 1151 Palmyrita Avenue, Riverside, CA

ERIS

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- Plume

Source: © 2021 ESRI StreetMap Premium

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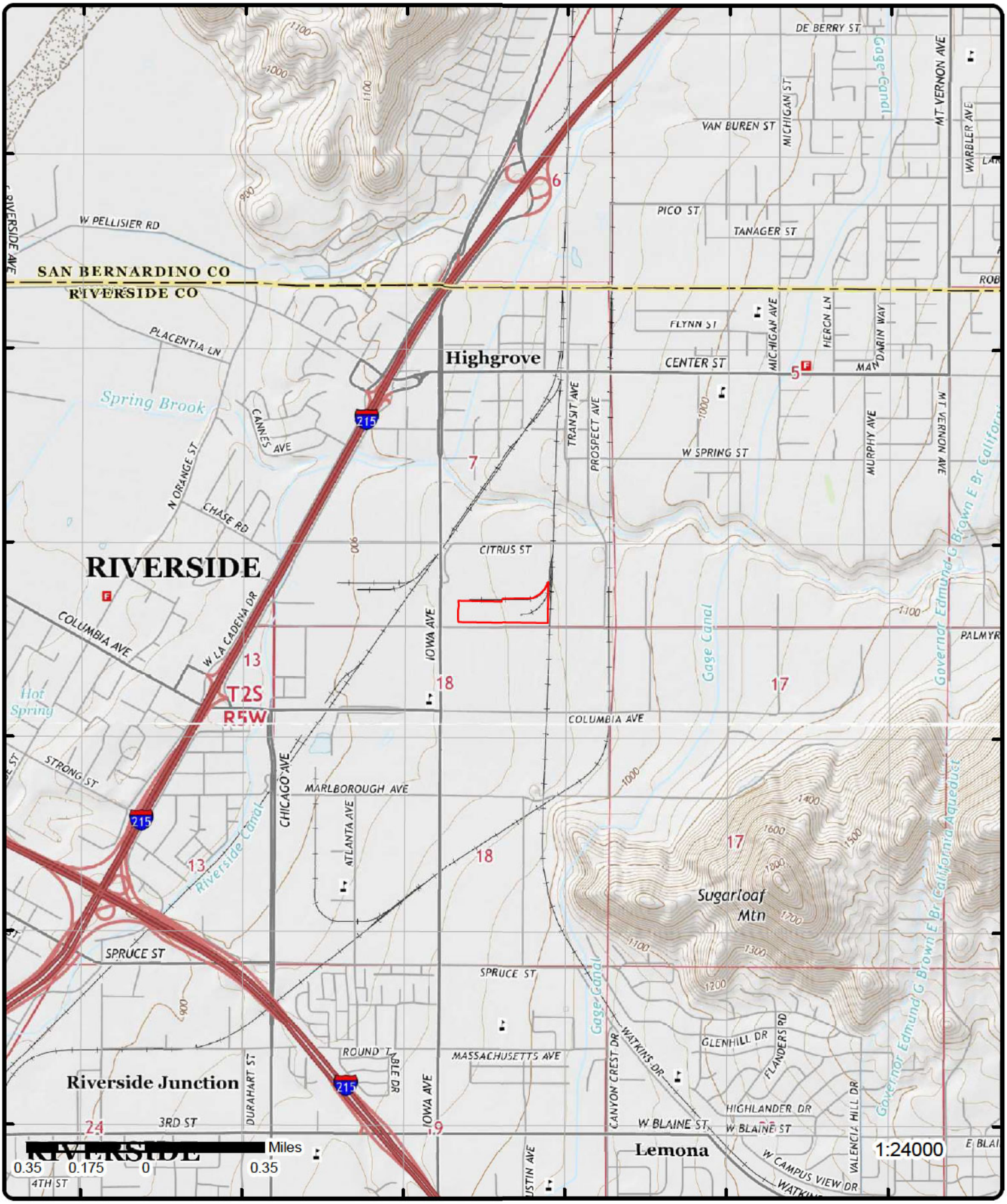
Aerial Year: 2020

Order Number: 22042000887

Address: 1151 Palmyrita Avenue, Riverside, CA

Source: ESRI World Imagery

© ERIS Information Inc.



Topographic Map

Year: 2015

Order Number: 22042000887

Address: 1151 Palmyrita Avenue, CA

Quadrangle(s): Riverside East, CA; San Bernardino South, CA

Source: USGS Topographic Map

© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 1	W	0.00 / 0.00	938.69 / -2	ANCON MARINE 1151 PALMARIDA RIVERSIDE CA 925070000	HAZNET

SIC Code:
NAICS Code:
EPA ID: CAC002324761
Create Date: 2/23/2001
Fac Act Ind: No
Inact Date: 9/11/2001
County Code: 33
County Name: Riverside
Mail Name:
Mailing Addr 1: 2250 DOMINGEZ AVE
Mailing Addr 2:
Owner Fax:

Mailing City: CARSON
Mailing State: CA
Mailing Zip: 908100000
Region Code: 4
Owner Name: BRET HARDIN
Owner Addr 1: 2250 DOMINGEZ AVE
Owner Addr 2:
Owner City: CARSON
Owner State: CA
Owner Zip: 908100000
Owner Phone: 0000000000

Contact Information
--
Contact Name: MELINDA BORREGO/ MGR
Street Address 1: 2250 DOMINGEZ AVE
Street Address 2:
City: CARSON
State: CA
Zip: 908100000
Phone: 3105488341
--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of 1	WSW	0.01 / 70.98	932.11 / -9	WEST COAST POWER STEAM CLEANING 1220 PALMYRITA AVE RIVERSIDE CA 925070000	HAZNET

SIC Code:
NAICS Code:
EPA ID: CAC002374423
Create Date: 12/10/2001
Fac Act Ind: No
Inact Date: 9/10/2002
County Code: 33
County Name: Riverside
Mail Name:
Mailing Addr 1: 1249 EASTWOOD DR
Mailing Addr 2:
Owner Fax:

Mailing City: ANAHEIM
Mailing State: CA
Mailing Zip: 928050000
Region Code: 4
Owner Name: WEST COAST POWER STEAM CLEANIN
Owner Addr 1: 1249 EASTWOOD DR
Owner Addr 2:
Owner City: ANAHEIM
Owner State: CA
Owner Zip: 928050000
Owner Phone: 0000000000

Contact Information
--
Contact Name: EMIL CHOPICH - PRES
Street Address 1: 1249 EASTWOOD DR
Street Address 2:
City: ANAHEIM
State: CA
Zip: 928050000
Phone: 7144482040
--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 2	WSW	0.01 / 71.64	929.72 / -11	IVR HOME HEALTH EQUIPMENT 1240 PALMYRITA AVE #E-H RIVERSIDE CA 92507	FINDS/FRS

Registry ID:	110065469255
FIPS Code:	
HUC Code:	18070203
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	13-OCT-15
Update Date:	
Interest Types:	STATE MASTER
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	44
Census Block Code:	060650422092028
EPA Region Code:	09
County Name:	RIVERSIDE
US/Mexico Border Ind:	
Latitude:	34.004765
Longitude:	-117.338529
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	50
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110065469255
Program Acronyms:	

CA-ENVIROVIEW:184684

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	2 of 2	WSW	0.01 / 71.64	929.72 / -11	MIRACLE METHOD OF RIVERSIDE 1240 PALMYRITA AVE #L RIVERSIDE CA 92507	FINDS/FRS

Registry ID:	110070490038
FIPS Code:	06065
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	03-JAN-19
Update Date:	
Interest Types:	OTHER HAZARDOUS WASTE ACTIVITIES
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	562910
NAICS Code Descriptions:	REMEDIATION SERVICES.
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	09
County Name:	RIVERSIDE
US/Mexico Border Ind:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Latitude:
Longitude:
Reference Point:
Coord Collection Method:
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070490038
Program Acronyms:

RCRAINFO:CAL000440638

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 1	ESE	0.01 / 72.07	951.50 / 11	Emergency Response & Training Solutions 1050 Palmyrta Avenue Riverside CA 92507	CHMIRS

Control No: 16-7654
County: Riverside County
Year: 2016
URL: https://w3.calema.ca.gov/operational/malhaz.nsf/f1841a103c102734882563e200760c4a/714dc0ce33a5fa178825808e0058c280?OpenDocument
Notified Date:
Notified Date Time:

Spill Report View

Amount 1:
Amount 2:
Amount 3:
Type: PETROLEUM
Water:
On Scene:
Other on Scene:
Other Notified:
Document Title: SPILL Report
Spill Site: Other
Cause Desc for Other:
Person Notifying Cal OES:
Creation Date: 12/19/2016 08:09 AM
Received By:
Admin Agency:
Admin Agency 2:
Additional County:
Phone No:
Ext:
Pag Cell:

Hazardous Materials Spill Report

Contained: Yes
Date : 12/19/2016
Time: 0809
Incident Date: 12/19/2016
Incident Time: 0930
Water Involved: No
Waterway: None
Drink Wtr Impact: No
Detail for Other:
UPRR Rim No:
DOG Unit:
RWQCB Unit: 8
1 Substance: Diesel fuel
1 Qty: =
1 Amount : 60
1 Measure: Gal(s)
1 Type: PETROLEUM
1 Other:
1 Pipeline: No
1 Ves >= 300 Tons: No
Incident Location: 1050 Palmyrta Avenue
Additional County:
Injuries: No
Fatality: No
Control Cal OES: 16-7654
Control NRC:
Received By:
Cleanup By: Contractor
2 Substance:
2 Qty: =
2 Amount:
2 Measure:
2 Type:
2 Other:
2 Pipeline: No
2 Ves >= 300 Tns: No
3 Substance:
3 Qty: =
3 Amount:
3 Measure:
3 Type:
3 Other:
3 Pipeline: No
3 Ves >= 300 Tons: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Evacuation: No
Known Impact: None
Name:
Agency: Emergency Response & Training Solutions
Phone:
Ext:
Pag Cell:
PRS Name:
PRS Agency:
PRS Phone:
PRS Ext:
PRS Pag Cell:
Sec Agency: Riverside County Environmental Health
Admin Agency: Riverside City Fire Department
Admin Agency 2:
Notification Info:
Notification List:
On Scene:
Other on Scene:
Other Notified: None
Header Unknown: SOUTH COAST AQMD
Incident Desc:
Site: Other
Description for Other : Distribution center
Reported Cause: Human Error
R R Crssing < 50 Ft:
Description: Two freight trucks collided at a distribution center causing a puncture in one of the vehicle's saddle tanks. The fuel release was to asphalt. No waterways were impacted. A contractor is on-site and conducting a cleanup.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	1 of 6	ESE	0.02 / 81.72	951.50 / 11	MBM, INC. (DC04) 1050 PALMYRITA AVE RIVERSIDE CA 92507	FINDS/FRS

Registry ID: 110055889285
FIPS Code: 33
HUC Code: 18070203
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 15-SEP-13
Update Date: 14-OCT-15
Interest Types: STATE MASTER
SIC Codes: 4222
SIC Code Descriptions: REFRIGERATED WAREHOUSING AND STORAGE
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FRS-GEOCODE
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 44
Census Block Code: 060650422092028
EPA Region Code: 09
County Name: RIVERSIDE
US/Mexico Border Ind:
Latitude: 34.00384
Longitude: -117.33492
Reference Point: CENTER OF A FACILITY OR STATION
Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value: 30
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110055889285
Program Acronyms:

CA-CERS:10415452, CA-ENVIROVIEW:47270

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	2 of 6	ESE	0.02 / 81.72	951.50 / 11	SC FUELS 1050 PALMYRITA AVE RIVERSIDE CA 92507	HAZNET

SIC Code:
NAICS Code:
EPA ID: CAC002747027
Create Date: 10/10/2013
Fac Act Ind: No
Inact Date: 1/9/2014
County Code: 33
County Name: Riverside
Mail Name:
Mailing Addr 1: 6828 ROSECRANS AVE
Mailing Addr 2:
Owner Fax:

Mailing City: PARAMOUNT
Mailing State: CA
Mailing Zip: 907233146
Region Code: 4
Owner Name: SC FUELS
Owner Addr 1: 6828 ROSECRANS AVE
Owner Addr 2:
Owner City: PARAMOUNT
Owner State: CA
Owner Zip: 907233146
Owner Phone: 8003092222

Contact Information
--
Contact Name: ANTHONY ARERS
Street Address 1: 6828 ROSECRANS AVE
Street Address 2:
City: PARAMOUNT
State: CA
Zip: 907233146
Phone: 8003092222
--
--
Tanner Information
--
Generator EPA ID: CAC002747027
Generator County Code: 33
Generator County: Riverside
TSD EPA ID: CAD028409019
TSD County Code: 19
TSD County: Los Angeles
State Waste Code: 221
State Waste Code Desc.: Waste oil and mixed oil
Method Code: H135
Method Description: DISCHARGE TO SEWER/POTW OR NPDES(WITH PRIOR STORAGE--WITH OR WITHOUT TREATMENT)
Tons: 1.862
Year: 2013
--
Generator EPA ID: CAC002747027
Generator County Code: 33
Generator County: Riverside
TSD EPA ID: CAD028409019
TSD County Code: 19
TSD County: Los Angeles
State Waste Code: 223
State Waste Code Desc.: Unspecified oil-containing waste
Method Code: H141
Method Description: STORAGE, BULKING, AND/OR TRANSFER OFF SITE NO TREATMENT/REOVERY (H010 H129) OR (H131 H135)
Tons: 0.175
Year: 2013
--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	3 of 6	ESE	0.02 / 81.72	951.50 / 11	RYDER TRANSPORTATION 1050 PALMYRITA AVE RIVERSIDE CA 925071700	HAZNET

SIC Code:
NAICS Code:
EPA ID: CAC002188284

Mailing City: EXTON
Mailing State: PA
Mailing Zip: 193411120

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Create Date:	10/26/2010	**Region Code:**	4
Fac Act Ind:	No	**Owner Name:**	RYDER TRANSPORTATION
Inact Date:	4/25/2011	**Owner Addr 1:**	505 EAGLEVIEW BLVD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	EXTON
Mail Name:		**Owner State:**	PA
Mailing Addr 1:	505 EAGLEVIEW BLVD	**Owner Zip:**	193411120
Mailing Addr 2:		**Owner Phone:**	9515382161
Owner Fax:			

Contact Information

--	--
Contact Name:	KIRK CONRAD
Street Address 1:	505 EAGLEVIEW BLVD
Street Address 2:	
City:	EXTON
State:	PA
Zip:	193411120
Phone:	9515382161
--	--
--	--

Tanner Information

--	--
Generator EPA ID:	CAC002188284
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAT080013352
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	223
State Waste Code Desc.:	Unspecified oil-containing waste
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	1.8765
Year:	2010
--	--
Generator EPA ID:	CAC002188284
Generator County Code:	33
Generator County:	Riverside
TSD EPA ID:	CAD008252405
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	223
State Waste Code Desc.:	Unspecified oil-containing waste
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.2
Year:	2010
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	4 of 6	ESE	0.02 / 81.72	951.50 / 11	MBM CORP - RIVERSIDE CA DC 04 1050 PALMYRITA AVE RIVERSIDE CA 925071700	HAZNET

SIC Code:	5141	**Mailing City:**	RIVERSIDE
NAICS Code:	42241	**Mailing State:**	CA
EPA ID:	CAL000409865	**Mailing Zip:**	925071700
Create Date:	9/3/2015	**Region Code:**	4
Fac Act Ind:	Yes	**Owner Name:**	MBM CORP
Inact Date:		**Owner Addr 1:**	2641 MEADOWBROOK RD
County Code:	33	**Owner Addr 2:**	
County Name:	Riverside	**Owner City:**	ROCKY MOUNT
Mail Name:		**Owner State:**	NC
Mailing Addr 1:	1050 PALMYRITA AVE	**Owner Zip:**	27801
Mailing Addr 2:		**Owner Phone:**	2529857200

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner Fax: 2524504163

Contact Information

--	--
Contact Name:	MIKE EATINGER
Street Address 1:	1050 PALMYRITA AVE
Street Address 2:	
City:	RIVERSIDE
State:	CA
Zip:	925071700
Phone:	9516861200
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	5 of 6	ESE	0.02 / 81.72	951.50 / 11	MCLANE RIVERSIDE 604 1050 PALMYRITA AVE RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID:	CAC002983059
Gen Status Universe:	No Report
Contact Name:	LEO SCHMIDT
Contact Address:	1050 PALMYRITA AVE , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	909-912-3702
Contact Email:	LEO.SCHMIDT@MCLANEFS.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20181002
Location Latitude:	34.004728
Location Longitude:	-117.334792

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20181002
Handler Name:	MCLANE RIVERSIDE 604
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	4747 MCLANE PAKYWAY
Name:	MCLANE CORP.	***Street 2:***	
Date Became Current:		***City:***	TEMPLE
Date Ended Current:		***State:***	TX
Phone:	254-771-6100	***Country:***	
Source Type:	Implementer	***Zip Code:***	76503
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1050 PALMYRITA AVE
Name:	LEO SCHMIDT	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	909-912-3702	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507

5	*6 of 6*	*ESE*	*0.02 / 81.72*	*951.50 / 11*	***MCLANE RIVERSIDE 604*** ***1050 PALMYRITA AVE*** ***RIVERSIDE CA 92507***	*FINDS/FRS*

Registry ID:	110070405879
FIPS Code:	06065
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	31-DEC-18
Update Date:	
Interest Types:	OTHER HAZARDOUS WASTE ACTIVITIES
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	493120
NAICS Code Descriptions:	REFRIGERATED WAREHOUSING AND STORAGE.
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	09
County Name:	RIVERSIDE
US/Mexico Border Ind:	
Latitude:	
Longitude:	
Reference Point:	
Coord Collection Method:	
Accuracy Value:	
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070405879
Program Acronyms:	

RCRAINFO:CAC002983059

6	*1 of 2*	*WSW*	*0.02 / 84.91*	*929.05 / -12*	***Rotech*** ***1240 PALMYRITA AVE STE G*** ***RIVERSIDE CA 92507***	*CERS HAZ*

Site ID:	376337
Latitude:	34.00472
Longitude:	-117.33844
County:	

Regulated Programs

EI ID: 10688797 ***EI Description:*** Chemical Storage Facilities

Violations

Violation Date: 12/23/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: 19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Notes:

Returned to compliance on 01/26/2015.

Violation Description:

Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violations

Violation Date: 12/23/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25503.5(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25503.5(a)
Violation Notes:

Returned to compliance on 01/26/2015.

Violation Description:

Owner/Operator failed to establish and implement a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.

Evaluations

Eval Date: 12/23/2014
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/13/2021
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/29/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Document Preparer
Entity Name: Mike Harner
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1240 Palmyrita Ave Ste G
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Parent Corporation
Entity Name: Rotech Healthcare Inc
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Operator
Entity Name: Debbie Stroud
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (702) 277-5452

Affil Type Desc: Legal Owner
Entity Name: Rotech Healthcare Inc
Entity Title:
Address: 3600 Vineland Road Suite 114
City: ORLANDO
State: FL
Country: United States
Zip Code: 32811
Phone: (407) 822-4600

Affil Type Desc: Environmental Contact
Entity Name: Mike Harner
Entity Title:
Address: 3600 VINELAND ROAD SUITE 114

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

City:	ORLANDO
State:	FL
Country:	
Zip Code:	32811
Phone:	
Affil Type Desc:	Identification Signer
Entity Name:	Mike Harner
Entity Title:	Director of FDA/DOT Compliance
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Property Owner
Entity Name:	Essex Realty Management, Inc.
Entity Title:	
Address:	2023 Chicago Ave Ste B-28
City:	Riverside
State:	CA
Country:	United States
Zip Code:	92507
Phone:	(951) 274-7800

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	2 of 2	WSW	0.02 / 84.91	929.05 / -12	MIRACLE METHOD 1240 PALMYRITE AVENUE SUITE L RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID:	CAC003156733
Gen Status Universe:	No Report
Contact Name:	NICK SALCEDO
Contact Address:	1240 PALMYRITE AVENUE , SUITE L , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	951-289-3725
Contact Email:	NSALCEDO@MIRACLEMETHOD.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20220113
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20220113
Handler Name: MIRACLE METHOD
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: MIRACLE METHOD
Date Became Current:
Date Ended Current:
Phone: 951-289-3725
Source Type: Implementer
Street No:
Street 1: 1240 PALMYRITE AVENUE
Street 2: SUITE L
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Operator
Type: Other
Name: NICK SALCEDO
Date Became Current:
Date Ended Current:
Phone: 951-289-3725
Source Type: Implementer
Street No:
Street 1: 1240 PALMYRITE AVENUE
Street 2: SUITE L
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

7	1 of 4	ESE	0.06 / 296.62	963.76 / 23	**WEST COAST WIRE AND STEEL, INC.** **1027 PALMYRITA AVE** **RIVERSIDE CA 92507**	RCRA LQG

EPA Handler ID: CAL000235793
Gen Status Universe: Large Quantity Generator
Contact Name: MARK VARBEL
Contact Address: 1027 , PALMYRITA AVE , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext: 951-683-7252
Contact Email: MARK@WCWS.ORG
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type: Private
Receive Date: 20100813
Location Latitude: 34.004709
Location Longitude: -117.325875

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20100813
Handler Name: WEST COAST WIRE AND STEEL, INC.
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report update with Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: F003
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Hazardous Waste Code: F005
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	1027
Type:	Private	**Street 1:**	PALMYRITA AVE
Name:	WILLIAM STALBERGER	**Street 2:**	
Date Became Current:	19960801	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:		**Country:**	
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	92507

Owner/Operator Ind:	Current Owner	**Street No:**	1027
Type:	Private	**Street 1:**	PALMYRITA AVE
Name:	WILLIAM STALBERGER	**Street 2:**	
Date Became Current:	19960801	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-683-7252	**Country:**	
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	92507

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	2 of 4	ESE	0.06 / 296.62	963.76 / 23	**Allied Steel Co Inc** **1027 PALMYRITA AVE** **RIVERSIDE CA 92507**	CERS HAZ

Site ID: 384643
Latitude: 34.00573
Longitude: -117.33352

County:

Regulated Programs

EI ID:	10630879	**EI Description:**	Chemical Storage Facilities
EI ID:	10630879	**EI Description:**	Hazardous Waste Generator
EI ID:	810998	**EI Description:**	Industrial Facility Storm Water

Violations

Violation Date:	06/17/2021	**Violation Source:**	CERS
Violation Program:	HW	**Violation Division:**	Riverside County Department of Env Health
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)		
Violation Notes:			

Returned to compliance on 08/16/2021. OBSERVATION: Observed several hazardous waste handling, containerizing and labeling violations that indicate the need for an employee refresher training. CORRECTIVE ACTION: Owner/operator shall ensure all employees are properly trained in order to ensure appropriate safety and knowledge of hazardous wastes on site. Provide training and email a roster with a sign in log to hbarrios@rivco.org.

Violation Description:

Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violations

Violation Date:	05/06/2015	**Violation Source:**	CERS
Violation Program:	HMRRP	**Violation Division:**	Riverside City Fire Department
Citation:	HSC 6.95 25503.5(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25503.5(a)		
Violation Notes:			

Returned to compliance on 06/30/2015.

Violation Description:

Owner/Operator failed to establish and implement a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.

Violations

Violation Date:	06/17/2021	**Violation Source:**	CERS
Violation Program:	HW	**Violation Division:**	Riverside County Department of Env Health
Citation:	40 CFR 1 265.172 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.172		
Violation Notes:			

Returned to compliance on 08/16/2021. OBSERVATION: Observed commingled oil based paint cans with 5 gallon acetone containers on a pallet at the back of the building. The used coolant water was stored in two 55 gallon drums that were improperly labeled. The used solvent 55 gallon drum was not labeled. Operator did not have a labeled used absorbent drum. The used aerosol cans were in an open cardboard box without a universal waste label CORRECTIVE ACTION: Owner/operator shall immediately place hazardous waste into a compatible hazardous waste containers. Provide 55 gallon drums to contain the oil based paint cans that were observed to have a flammable product still in them. Separate the empty, acetone, metal containers that are going to be recycled. The aerosol cans may be contained in a covered, labeled container.

Violation Description:

Failure to accumulate or store hazardous waste in container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored.

Violations

Violation Date:	06/21/2021	**Violation Source:**	CERS

Violation Program: HMRRP **Violation Division:** Riverside City Fire Department
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Notes:

Returned to compliance on 07/21/2021. The business plan update within 30 days has not been completed as required.

Violation Description:

Failure to electronically update business plan within 30 days of any one of the following events:
A 100 percent or more increase in the quantity of a previously disclosed material.
Any handling of a previously undisclosed hazardous materials at or above reportable quantities.
A change of business address, business ownership, or business name.
A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violations

Violation Date: 06/21/2021 **Violation Source:** CERS
Violation Program: HMRRP **Violation Division:** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/21/2021. 104C - Hazmat storage area(s) properly posted. [RMC 16.32.020; CFC, Section 5003.6] - The hazmat storage area(s) signage was obscured or removed. Replace all required signage on the rear hazardous waster/flammable liquids storage bin. Remove and relocate the acetone sign to its proper location.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 06/17/2021 **Violation Source:** CERS
Violation Program: HW **Violation Division:** Riverside County Department of Env Health
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Notes:

Returned to compliance on 08/16/2021. OBSERVATION: Observed approximately 5 waste streams and or containers that were missing proper labels. (Used aerosols, absorbent material, solvents, contaminated water, oil based paint/paint cans that are not completely empty) CORRECTIVE ACTION: Owner/operator shall label hazardous waste containers with all the required information. Label shall include at least: the words ""hazardous waste"", generator name and address, accumulation start date, composition and physical state of waste, and hazardous property statement. Submit photos to this department, if applicable. Universal waste such as the aerosol cans may have a "Universal Waste" label that identifies the contents and accumulation start date.

Violation Description:

Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violations

Violation Date: 07/16/2020 **Violation Source:** SMARTS
Violation Program: INDSTW **Violation Division:** Water Boards
Citation: 2014-0057-DWQ - Industrial General Permit
Violation Notes:

Failure to submit 2019 - 2020 Annual Report by due date

Violation Description:

SW - Late Report

Violations

Violation Date: 06/17/2021 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Notes:

Returned to compliance on 08/16/2021. OBSERVATION: Observed non empty, oil based paint cans stored on a pallet, not properly containerized, covered or labeled. Some cans were open to the air. CORRECTIVE ACTION: Owner/operator shall maintain all hazardous waste in containers that are closed when not adding/removing hazardous waste.

Violation Description:

Failure to meet the following container management requirements:
(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violations

Violation Date: 07/01/2012 ***Violation Source:*** SMARTS
Violation Program: INDSTW ***Violation Division:*** Water Boards
Citation: 2014-0057-DWQ - Industrial General Permit
Violation Notes:

2011-2012 annual report late submission Site has not submit the 2011-2012 annual report by 07/02/2012. - 1st Notice of Non-Compliance sent on 08/09/2012, via certified mail to facility, CC to owner.

Violation Description:

SW - Late Report

Violations

Violation Date: 06/21/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/21/2021. 105D - Container(s) properly labeled. [RMC 16.32.020; CFC, Section 5003.6] - The chemical container(s) signage was obscured/ removed/not provided. All containers shall be properly labeled. Label all drums in rear storage bin.

Violation Description:

Business Plan Program - Administration/Documentation - General Local Ordinance

Violations

Violation Date: 06/17/2021 ***Violation Source:*** CERS
Violation Program: HW ***Violation Division:*** Riverside County Department of Env Health
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Notes:

Returned to compliance on 08/16/2021. OBSERVATION: Observed a spill on the floor around a cutting machine. CORRECTIVE ACTION: Owner/operator shall clean up used absorbent on a timely basis and manage according to Title 22 hazardous waste regulations. Operator shall provide an absorbent, solid, hazardous waste drum and label as such.

Violation Description:

Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violations

Violation Date: 07/01/2014 **Violation Source:** SMARTS
Violation Program: INDSTW **Violation Division:** Water Boards
Citation: 2014-0057-DWQ - Industrial General Permit
Violation Notes:

2013-2014 annual report was not received on 7/1/2014. First Notice of Non-Compliance is sent out on 8/7/2014 via certified mail, with return receipt, along with a regular mail as a copy to owner's address.

Violation Description:

SW - Late Report

Violations

Violation Date: 06/17/2021 **Violation Source:** CERS
Violation Program: HW **Violation Division:** Riverside County Department of Env Health
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Notes:

Returned to compliance on 08/16/2021. OBSERVATION: Observed manifests for hazardous waste shipments that are occurring on an annual basis. The hazardous waste areas, currently lack proper containers nor have hazardous waste labels. CORRECTIVE ACTION: Owner/operator shall ensure all hazardous wastes are transported off site within 180 days of the accumulation start date. Owner/operator shall have hazardous waste properly hauled off site by a registered hazardous waste transporter every 180 days, beginning the accumulation start date that shall be written on each labeled, hazardous waste containers.

Violation Description:

Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met:
(1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms.

(2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f).

(3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Violations

Violation Date: 06/21/2021 **Violation Source:** CERS
Violation Program: HMRRP **Violation Division:** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 07/21/2021. The chemical inventory has not been submitted accurately. Submit the chemical inventory in CERS. Include the changes of the following chemicals in CERS: add 55 gallons of Merit Elite AW Hydraulic 46.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Enforcements

Enf Action Date: 08/17/2020 **Enf Action Program:** INDSTW
Enf Action Type: Industrial Storm Water Enforcement **Enf Action Source:** SMARTS
Enf Action Division: Water Boards
Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes:

Failure to submit 2019-2020 Annual Report by due date

Enf Action Date: 08/07/2014 **Enf Action Program:** INDSTW
Enf Action Type: Industrial Storm Water Enforcement **Enf Action Source:** SMARTS
Enf Action Division: Water Boards

Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes:

2013-2014 annual report was not received on 7/1/2014. First Notice of Non-Compliance is sent out on 8/7/2014 via certified mail, with return receipt, along with a regular mail as a copy to owner's address.

Enf Action Date: 07/15/2015
Enf Action Program: HMRRP
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Source: CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 08/09/2012
Enf Action Program: INDSTW
Enf Action Type: Industrial Storm Water Enforcement
Enf Action Source: SMARTS
Enf Action Division: Water Boards
Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes:

2011-2012 annual report late submission Site has not submit the 2011-2012 annual report by 07/02/2012. - 1st Notice of Non-Compliance sent on 08/09/2012, via certified mail to facility, CC to owner.

Evaluations

Eval Date: 07/21/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 6/21/2021 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/19/2016
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Industrial Storm Water Compliance Evaluation
Eval Division: Water Boards
Eval Program: INDSTW
Eval Source: SMARTS
Eval Notes:

The site-specific SWPPP, Monitoring Program and log of inspections were available and reviewed at the site. All industrial activities are performed indoor. Grinding of the welded metals is done outside in the yard to make surfaces smooth. The RB staff observed that discharges collect fine chips and waste metal by magnetic collector. The discharger narrated that entire yard is cleaned every day. During the inspection, the RB Staff did not observe any exposure of pollutants potentially exposed to storm water.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 04/17/2017
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 05/06/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department

Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/21/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/17/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

This facility is a steel fabrication facility that is a small quantity, hazardous waste generator of used coolant water, oil based paints , solvents, aerosol cans and absorbent. Your permit covers one inspection and one reinspection. If further inspections become necessary, they will be billable at the rate of $245.00 per hour. All compliance responses shall be sent to hbarriosrivco.org on or before your compliance date of July 17, 2021.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/05/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: Property Owner
Entity Name: Chapman Brothers Partnership
Entity Title:
Address: 1027 Palmyrita Ave
City: Riverside
State: CA
Country: United States
Zip Code: 92507
Phone: (951) 241-7000

Affil Type Desc: Parent Corporation
Entity Name: Allied Steel Co Inc
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Operator
Entity Name: Brian P. Chapman
Entity Title:
Address:
City:

State:	
Country:	
Zip Code:	
Phone:	(323) 228-1598
Affil Type Desc:	Document Preparer
Entity Name:	nicky chapman
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Identification Signer
Entity Name:	nicky chapman
Entity Title:	Treasurer/CFO
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Environmental Contact
Entity Name:	Nicky Chapman
Entity Title:	
Address:	1027 Palmyrita Ave
City:	Riverside
State:	CA
Country:	
Zip Code:	92507
Phone:	
Affil Type Desc:	Owner/Operator
Entity Name:	Allied Steel Co Inc
Entity Title:	Operator
Address:	1027 Palmyrita Ave
City:	Riverside
State:	CA
Country:	
Zip Code:	92507
Phone:	
Affil Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	
Address:	1027 Palmyrita Ave
City:	Riverside
State:	CA
Country:	
Zip Code:	92507
Phone:	
Affil Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	
Address:	4065 County Circle Drive, Room 104
City:	Riverside
State:	CA
Country:	
Zip Code:	92503
Phone:	(951) 358-5055
Affil Type Desc:	Legal Owner
Entity Name:	Brian P. Chapman
Entity Title:	
Address:	1027 Palmyrita Ave

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

City:	Riverside
State:	CA
Country:	United States
Zip Code:	92507
Phone:	(951) 241-7000

Coordinates

Env Int Type Code:	HMBP	**Longitude:**	-117.333310
Program ID:	10630879	**Coord Name:**	
Latitude:	34.005760	**Ref Point Type Desc:**	Center of a facility or station.

7	3 of 4	ESE	0.06 / 296.62	963.76 / 23	**ALLIED STEEL CO INC** **1027 PALMYRITA AVENUE** **RIVERSIDE CA 92507-1701**	RCRA LQG

EPA Handler ID:	CAL000365650
Gen Status Universe:	Large Quantity Generator
Contact Name:	NICKY CHAPMAN
Contact Address:	1027 , PALMYRITA AVENUE , , RIVERSIDE , CA, 92507-1701 , US
Contact Phone No and Ext:	951-241-7000
Contact Email:	NICKY@ALLIEDSTEELCO.COM
Contact Country:	US
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	Private
Receive Date:	20181022
Location Latitude:	34.004709
Location Longitude:	-117.325875

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20181022
Handler Name:	ALLIED STEEL CO INC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report update with Notification

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Waste Code Details

Hazardous Waste Code: 221
Waste Code Description: Waste oil and mixed oil

Hazardous Waste Code: 331
Waste Code Description: Off-specification, aged, or surplus organics

Hazardous Waste Code: 352
Waste Code Description: Other organic solids

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	1027
Type:	Private	***Street 1:***	PALMYRITA AVENUE
Name:	ALLIED STEEL CO INC	***Street 2:***	
Date Became Current:	20110311	***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-241-7000	***Country:***	US
Source Type:	Annual/Biennial Report update with Notification	***Zip Code:***	92507-1701

Owner/Operator Ind:	Current Owner	***Street No:***	1027
Type:	Private	***Street 1:***	PALMYRITA AVENUE
Name:	CHAPMAN BROTHERS ENTERPRISES	***Street 2:***	
Date Became Current:	20110301	***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-241-7000	***Country:***	US
Source Type:	Annual/Biennial Report update with Notification	***Zip Code:***	92507-1701

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	4 of 4	ESE	0.06 / 296.62	963.76 / 23	Allied Steel Co Inc 1027 Palmyrita Ave Riverside CA 92507	HWG RIVERSIDE

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
8	1 of 1	SW	0.06 / 324.14	932.47 / -8	MIRACLE METHOD OF RIVERSIDE 1240 PALMYRITA AVE #L RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAL000440638
Gen Status Universe: No Report
Contact Name: TYLER MURPHY
Contact Address: 1240 PALMYRITA AVE #L , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 951-684-4563
Contact Email: TMURPHY@MIRACLEMETHOD.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20181108
Location Latitude: 34.004694
Location Longitude: -117.33847

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20181108
Handler Name:	MIRACLE METHOD OF RIVERSIDE
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	1240 PALMYRITA AVE #L
Name:	MG WORLD WIDE LLC	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-684-4563	**Country:**	
Source Type:	Implementer	**Zip Code:**	92507
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	1240 PALMYRITA AVE #L
Name:	TYLER MURPHY	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-684-4563	**Country:**	
Source Type:	Implementer	**Zip Code:**	92507

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	1 of 11	S	0.08 / 400.94	940.59 / 0	**Hometeam Pest Defense** **1120 PALMYRITA #210** **RIVERSIDE CA 92507**	CERS HAZ

Site ID:	175270
Latitude:	34.00471
Longitude:	-117.33584
County:	

Regulated Programs

EI ID:	10525420	**EI Description:**	Chemical Storage Facilities

Violations

Violation Date:	08/18/2021	**Violation Source:**	CERS
Violation Program:	HMRRP	**Violation Division:**	Riverside City Fire Department
Citation:	Un-Specified		
Violation Notes:			

Returned to compliance on 09/20/2021. 100 - Current permit issued/posted. [RMC 9.48.140] - No current permit was posted. Obtain the current permit and post in a conspicuous location.

Violation Description:

Business Plan Program - Administration/Documentation - General Local Ordinance

Violations

Violation Date: 12/18/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Notes:

Returned to compliance on 01/21/2015. Add Nitrogen gas

Violation Description:

Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.

Violations

Violation Date: 08/20/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 09/17/2021.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 08/18/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(3 - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3
Violation Notes:

Returned to compliance on 09/17/2021. Business Owner/Operator ID page has been submitted or submitted incorrectly. Complete the required document in CERS. Update primary and secondary emergency contact information in CERS.

Violation Description:

Failure to report program data electronically.

Violations

Violation Date: 12/03/2018 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 12/13/2018.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 09/21/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 03/09/2017.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 12/18/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 01/21/2015.

Violation Description:

Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.

Violations

Violation Date: 12/18/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25504(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(c)
Violation Notes:

Returned to compliance on 01/21/2015.

Violation Description:

Failure to include provisions in the business plan to ensure that appropriate personnel receive initial and annual training.

Enforcements

Enf Action Date: 08/20/2021 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Administrative Citation.

Enf Action Date: 01/08/2015 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

NOV Issued.

Enf Action Date: 09/21/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

Enf Action Notes:

Fines/Penalties Assessed: $100.00. Administrative Citation.

Enf Action Date: 12/03/2018
Enf Action Program: HMRRP
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Source: CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. Administrative Citation.

Evaluations

Eval Date: 09/20/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 8/18/2021 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 12/18/2014
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 08/20/2021
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 05/30/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 08/18/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 09/21/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 12/03/2018
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: Operator
Entity Name: Hometeam Pest Defense - Jorge Armando Sandoval
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (925) 695-5107

Affil Type Desc: Environmental Contact
Entity Name: Hometeam Pest Defense
Entity Title:
Address: 1120 Palmyrita #210
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Identification Signer
Entity Name: Tim Plyler
Entity Title: General Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Hometeam Pest Defense
Entity Title:
Address: 1120 Palmyrita #210
City: Riverside
State: CA
Country: United States
Zip Code: 92507
Phone: (951) 905-5600

Affil Type Desc: Document Preparer
Entity Name: Tim Plyler
Entity Title:
Address:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Property Owner
Entity Name: J&J Properties
Entity Title:
Address: PO Box 25083
City: Santa Ana
State: CA
Country: United States
Zip Code: 92799
Phone: (714) 689-1993

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Parent Corporation
Entity Name: Hometeam Pest Defense
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1120 Palmyrita #210
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	2 of 11	S	0.08 / 400.94	940.59 / 0	**Trugreen ChemLawn** **1130 PALMYRITA AVE #300** **RIVERSIDE CA 92507**	CERS HAZ

Site ID: 181231
Latitude: 34.00471
Longitude: -117.33606
County:

Regulated Programs

EI ID: 10530964
EI Description: Chemical Storage Facilities

Violations

Violation Date: 03/28/2019
Violation Program: HMRRP
Violation Source: CERS
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Notes:

Returned to compliance on 07/16/2019. The chemical inventory has not been submitted accurately. Business Plan update within 30 days has not been completed due to IRON.

Violation Description:

Failure to electronically update business plan within 30 days of any one of the following events:
A 100 percent or more increase in the quantity of a previously disclosed material.
Any handling of a previously undisclosed hazardous materials at or above reportable quantities.
A change of business address, business ownership, or business name.
A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violations

Violation Date: 11/15/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 01/27/2017.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 03/28/2019 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 07/16/2019. The chemical inventory has not been submitted accurately. Include the changes of the following chemicals, add/change Iron from Lbs. to Gallons. amount is TBD and TBD for Weed Control Liquid.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 03/28/2019 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/17/2019. Emergency contact information posted in a conspicuous location. [RMC 9.48.040 (5)] No emergency contact information was found to be posted. Post the required emergency contact information in a accessible area to all.

Violation Description:

Business Plan Program - Administration/Documentation - General Local Ordinance

Violations

Violation Date: 03/28/2019 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Notes:

Returned to compliance on 07/17/2019. No business plan was readily available on site. Obtain a copy of the Business plan or have access to the plan electronically. In locked office. Made copy and posted in accessible area to all.

Violation Description:

Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.

Violations

Violation Date: 03/28/2019
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/17/2019. NFPA 704 sign(s) properly posted. [RMC 16.32.020; CFC, Section 5003.5] No NFPA 704 is posted. Provide the required NFPA 704 signage in the following locations: front of business. Exterior numbers TBD.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 03/28/2019
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 07/16/2019. No site map completed/submitted/or site map submitted has missing components. Update map and upload into CERS and add/change/correct the following items Storage racks do not indicate Haz-Mat storage of Fertilizer.

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Violations

Violation Date: 07/29/2016
Violation Source: CERS
Violation Program: HW
Violation Division: Riverside County Department of Env Health
Citation: HSC 6.5 25201(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25201(a)
Violation Notes:

Returned to compliance on 08/05/2016.

Violation Description:

Failure to dispose of hazardous waste at a facility which has a permit from DTSC or disposing of hazardous waste at any point which is not authorized according to this chapter.

Violations

Violation Date: 07/29/2016
Violation Source: CERS
Violation Program: HW
Violation Division: Riverside County Department of Env Health
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Notes:

Returned to compliance on 08/05/2016.

Violation Description:

Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.

Enforcements

Enf Action Date: 11/15/2016
Enf Action Program: HMRRP
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Source: CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. Administrative Citation.

Evaluations

Eval Date: 03/28/2019
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Deleted Violation 104C, data entry error, note removed and placed here in insp. comments. - Note: Recommend a second Spill Kit if portable Field Response Kit is out of the business.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/07/2021
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/21/2021
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

This facility is a lawn care business that was previously a small quantity, hazardous waste generator of rinsate that was collected a 40 gallon sump. The system has been redesigned to circulate the rinsate back into the main rinsate tank and reused. There is no longer any rinsate or residual that is a waste. This is the final hazardous waste inspection. The facility will be removed from the waste generator program.. CERS shall be updated to reflect the change. Therefore, remove the EPA ID# from CERS and say NO to hazardous waste generator.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/29/2016
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

HW generator inspection; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 08/05/2016
Violations Found: No
Eval General Type: Other/Unknown

Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

HW follow up (copy of manifest attained/EPA ID# verified); Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/15/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Identification Signer
Entity Name: Jeff Martineau
Entity Title: General Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1130 Palmyrita Ave #300
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Parent Corporation
Entity Name: TRUGREEN CHEMLAWN
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Jeff Martineau
Entity Title:
Address: 1130 Palmyrita Ave #300
City: Riverside
State: CA
Country: United States

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Zip Code: 92507
Phone: (714) 936-5344

Affil Type Desc: Document Preparer
Entity Name: Truegreen Inc
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Environmental Contact
Entity Name: Jeff Martineau
Entity Title:
Address: 1130 Palmyrita #300
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Operator
Entity Name: TruGreen Inc.
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (714) 936-5344

9	3 of 11	S	0.08 / 400.94	940.59 / 0	CENTURYLINK - RIVERSIDE - RVSDCAML 1110 PALMYRITA AVE STE 130 RIVERSIDE CA 92507	CERS HAZ

Site ID: 445159
Latitude: 34.00383
Longitude: -117.33623
County:

Regulated Programs

EI ID: 10485022 **EI Description:** Chemical Storage Facilities

Violations

Violation Date: 01/05/2018 **Violation Source:** CERS
Violation Program: HMRRP **Violation Division:** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 01/26/2018.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Enforcements

Enf Action Date: 01/05/2018 **Enf Action Program:** HMRRP
Enf Action Type: Notice of Violation (Unified Program) **Enf Action Source:** CERS

Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. admin cite.

Evaluations

Eval Date: 01/05/2018
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/26/2021
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Legal Owner
Entity Name: CenturyLink Communications
Entity Title:
Address: 1025 Eldorado Blvd.
City: Broomfield
State: CO
Country: United States
Zip Code: 80021
Phone: (720) 888-1000

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 700 W Mineral Avenue, UT D25.09
City: Littleton
State: CO
Country:
Zip Code: 80120
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Operator
Entity Name: CenturyLink Communications
Entity Title:
Address:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

City:
State:
Country:
Zip Code:
Phone: (720) 888-0676

Affil Type Desc: Environmental Contact
Entity Name: Robert Gurdikian
Entity Title:
Address: 700 W Mineral Avenue, UT D25.09
City: Littleton
State: CO
Country:
Zip Code: 80120
Phone:

Affil Type Desc: Parent Corporation
Entity Name: CenturyLink
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Document Preparer
Entity Name: Robert Gurdikian
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Identification Signer
Entity Name: Robert Gurdikian
Entity Title: Regional EHS Manager III
Address:
City:
State:
Country:
Zip Code:
Phone:

9	4 of 11	S	0.08 / 400.94	940.59 / 0	**TRUGREEN** **1130 PALMYRITA AVE STE 300** **RIVERSIDE CA 92507-1714**	**RCRA NON GEN**

EPA Handler ID: CAL000182106
Gen Status Universe: No Report
Contact Name: DEANNA BRUSH
Contact Address: 16022 ADELANTE ST , , IRWINDALE , CA, 91706 ,
Contact Phone No and Ext: 626-250-2084
Contact Email: DEANNABRUSH@TRUGREENMAIL.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 19990507
Location Latitude: 34.004694
Location Longitude: -117.336015

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19990507
Handler Name:	TRUGREEN
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	16022 ADELANTE ST
Name:	DEANNA BRUSH	***Street 2:***	
Date Became Current:		***City:***	IRWINDALE
Date Ended Current:		***State:***	CA
Phone:	626-250-2084	***Country:***	
Source Type:	Implementer	***Zip Code:***	91706
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	855 RIDGE LAKE BLVD
Name:	TRUGREEN ROSS	***Street 2:***	
Date Became Current:		***City:***	MEMPHIS
Date Ended Current:		***State:***	TN
Phone:	901-597-1800	***Country:***	
Source Type:	Implementer	***Zip Code:***	38120-0000

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	5 of 11	S	0.08 / 400.94	940.59 / 0	***ADT LLC DBA ADT SECURITY SERVICES*** ***1120 PALMYRITA AVE STE 280*** ***RIVERSIDE CA 92507***	***RCRA NON GEN***

EPA Handler ID:	CAL000392001
Gen Status Universe:	No Report
Contact Name:	ANDRES GUERRERO
Contact Address:	1120 PALMYRITA AVE , STE 280 , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	951-462-7842
Contact Email:	AGUERRERO@ADT.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20131213
Location Latitude:	34.004694
Location Longitude:	-117.335782

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20131213
Handler Name:	ADT LLC DBA ADT SECURITY SERVICES
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1120 PALMYRITA AVE
Name:	ANDRES GUERRERO	***Street 2:***	STE 280
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-462-7842	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1501 NW 51ST ST
Name:	ADT LLC	***Street 2:***	
Date Became Current:		***City:***	BOCA RATON
Date Ended Current:		***State:***	FL
Phone:	561-988-3600	***Country:***	
Source Type:	Implementer	***Zip Code:***	33431-4438

9	***6 of 11***	***S***	***0.08 / 400.94***	***940.59 / 0***	***DRIP MORE 1110 PALMYRITA AVE STE 120 RIVERSIDE CA 92507***	***RCRA NON GEN***

EPA Handler ID:	CAC002997775
Gen Status Universe:	No Report
Contact Name:	JESSIE HURST
Contact Address:	1110 PALMYRITA AVE STE 120 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	909-363-5865
Contact Email:	JESSIE@DRIPMORE.COM
Contact Country:	
County Name:	RIVERSIDE

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

EPA Region: 09
Land Type:
Receive Date: 20190123
Location Latitude: 34.004737
Location Longitude: -117.335894

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190123
Handler Name: DRIP MORE
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Other
Name: JESSIE HURST
Date Became Current:
Date Ended Current:
Phone: 909-363-5865
Source Type: Implementer
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Owner
Type: Other
Name: BRIAN BEREBER
Date Became Current:
Date Ended Current:
Phone: 951-682-1033
Source Type: Implementer
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

9	7 of 11	S	0.08 / 400.94	940.59 / 0	**DRIP MORE LLC** **1110 PALMYRITA AVE STE 120** **RIVERSIDE CA 92507**	RCRA TSD

EPA Handler ID: CAL000445174
Gen Status Universe: No Report
Contact Name: KATE POPOVA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Contact Address: 1110 PALMYRITA AVE STE 120 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 646-321-3267
Contact Email: KATE@DRIPMORE.COM
Contact Country:
Land Type:
County Name: RIVERSIDE
EPA Region: 09
Receive Date: 20190412
Location Latitude: 34.004737
Location Longitude: -117.335894

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Smelting, Melting and Refining: No
Underground Injection Control: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190412
Handler Name: DRIP MORE LLC
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified
Source Type: Implementer

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Other
Name: KATE POPOVA
Date Became Current:
Date Ended Current:
Phone: 646-321-3267
Source Type: Implementer
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Owner
Type: Other
Name: DRIP MORE LLC
Date Became Current:
Date Ended Current:
Phone: 323-977-0288
Source Type: Implementer
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

9	8 of 11	S	0.08 / 400.94	940.59 / 0	DRIP MORE LLC 1110 PALMYRITA AVE STE 120	RCRA NON GEN

EPA Handler ID: CAL000445174
Gen Status Universe: No Report
Contact Name: KATE POPOVA
Contact Address: 1110 PALMYRITA AVE STE 120 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 646-321-3267
Contact Email: KATE@DRIPMORE.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20190412
Location Latitude: 34.004737
Location Longitude: -117.335894

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190412
Handler Name: DRIP MORE LLC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: DRIP MORE LLC
Date Became Current:
Date Ended Current:
Phone: 323-977-0288
Source Type: Implementer
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Operator
Type: Other
Name: KATE POPOVA
Date Became Current:
Date Ended Current:
Phone: 646-321-3267
Street No:
Street 1: 1110 PALMYRITA AVE STE 120
Street 2:
City: RIVERSIDE
State: CA
Country:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Source Type:	Implementer			Zip Code:	92507	
9	9 of 11	S	0.08 / 400.94	940.59 / 0	Trugreen ChemLawn 1130 Palmyrita Ave #300 Riverside CA 92507	HWG RIVERSIDE
9	10 of 11	S	0.08 / 400.94	940.59 / 0	DripMore LLC 1110 Palmyrita Ave Ste #120 Riverside CA 92507	HWG RIVERSIDE
9	11 of 11	S	0.08 / 400.94	940.59 / 0	Drip More 1110 PALMYRITA AVE STE 150 RIVERSIDE CA 92507	CERS HAZ

Site ID: 611095
Latitude: 34.00358
Longitude: -117.33592
County:

Regulated Programs

EI ID: 10894915 **EI Description:** Hazardous Waste Generator

EI ID: 10894915 **EI Description:** Chemical Storage Facilities

Affiliations

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Parent Corporation
Entity Name: Drip More, LLC
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
10	1 of 1	WNW	0.08 / 417.12	924.56 / -16	RA AUTOMOTIVE LLC 725 IOWA AVE RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAL000467874
Gen Status Universe: No Report
Contact Name: ROY ALBA
Contact Address: 15190 BUXTON AVE , , MORENO VALLEY , CA, 92551 ,
Contact Phone No and Ext: 213-507-8874
Contact Email: RAAUTOMOTIVE725@GMAIL.COM
Contact Country:
County Name: RIVERSIDE

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

EPA Region: 09
Land Type:
Receive Date: 20220114
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20220114
Handler Name: RA AUTOMOTIVE LLC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: RA AUTOMOTIVE LLC
Date Became Current:
Date Ended Current:
Phone: 951-337-3289
Source Type: Implementer
Street No:
Street 1: 725 IOWA AVE
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Operator
Type: Other
Name: ROY ALBA
Date Became Current:
Date Ended Current:
Phone: 213-507-8874
Source Type: Implementer
Street No:
Street 1: 15190 BUXTON AVE
Street 2:
City: MORENO VALLEY
State: CA
Country:
Zip Code: 92551

11	1 of 16	NW	0.08 / 433.48	935.56 / -5	LILY-TULIP INC 800 IOWA AVE RIVERSIDE CA 92502	CERCLIS

Site ID: 0903171
Site EPA ID: CAD008353799
Site Street Address 2:
RNPL Status Code: N
NPL Status: Not on the NPL
RFED Facility Code: N

Site County Name:	RIVERSIDE	**RFED Facility Desc:**	Not a Federal Facility
Site FIPS Code:	06065	**USGS Hydro Unit No.:**	18070203
Region Code:	09	**Site Cong. Dist. Code:**	36
Site SMSA No.:	6780	**ROT Desc:**	Private
Site Prim. Latitude:	33D57M36S	**FR NPL Update No.:**	
Site Prim. Longitude:	117D23M30S	**RFRA Code:**	
Lat Long Source:			
RNON NPL Status Desc:	NFRAP-Site does not qualify for the NPL based on existing information		

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	State (Fund)
Act Code ID:	001	**Act Start Date:**	
RAT Code:	DS	**Act Complete Date:**	12/1/1987 00:00:00
RAT Short Name:	DISCVRY	**AGT Order No.:**	10
RAT Name:	DISCOVERY	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:	13		
RAT Def:	The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.		
Site Desc:			
Site Alias:			

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	
Act Code ID:		**Act Start Date:**	
RAT Code:		**Act Complete Date:**	
RAT Short Name:		**AGT Order No.:**	0
RAT Name:		**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:		**SH Seq:**	
RAT Level:		**SH Start Date:**	
RAT DEF OU:		**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:			
RAT Def:			
Site Desc:	No description available		
Site Alias:	LILY-TULIP CO,,,CA,;		

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	EPA In-House
Act Code ID:	001	**Act Start Date:**	
RAT Code:	VS	**Act Complete Date:**	5/2/1989 00:00:00
RAT Short Name:	ARCH SITE	**AGT Order No.:**	1500
RAT Name:	ARCHIVE SITE	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:	13		
RAT Def:	The decision is made that no further activity is planned at the site.		
Site Desc:			
Site Alias:			

CERCLIS Assess History

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

OU ID:	00	**RALT Short Name:**	State (Fund)
Act Code ID:	001	**Act Start Date:**	
RAT Code:	PA	**Act Complete Date:**	5/2/1989 00:00:00
RAT Short Name:	PA	**AGT Order No.:**	130
RAT Name:	PRELIMINARY ASSESSMENT	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:	P	**SH Lead:**	
SPA Code:	13		

RAT Def: Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.

Site Desc:

Site Alias:

11	2 of 16	NW	0.08 / 433.48	935.56 / -5	LILY-TULIP INC 800 IOWA AVE RIVERSIDE CA 92502	CERCLIS NFRAP

Site ID:	903171	**Site FIPS Code:**	6065
Site EPA ID:	CAD008353799	**Region Code:**	9
Site Parent ID:		**Site Cong. Dist. Code:**	36
Site County Name:	RIVERSIDE	**Federal Facility:**	
Parent Site Name:			

CERCLIS-NFRAP Assess History

OU ID:	0	**Act Start Date:**	
Act Code ID:	1	**Act Complete Date:**	5/2/1989
RAT Code:	PA	**AGT Order No.:**	130
RAT Short Name:	PA	**SH OU:**	
RAT Name:	PRELIMINARY ASSESSMENT	**SH Code:**	
RAT Hist. Only Flag:		**SH Seq:**	
RAT NSI Indicator:	B	**SH Start Date:**	
RAT Level:	1	**SH Complete Date:**	
RAT DEF OU:	00	**SH Lead:**	
RFBS Code:	P	**SH Qual:**	
SPA Code:	13	**RAQ Act. Qual Short:**	NFRAP
RALT Short Name:	State (Fund)	**RNPL Status Code:**	N

RAT Def: Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.

RNON NPL Status Desc: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Assess History

OU ID:	0	**Act Start Date:**	
Act Code ID:	1	**Act Complete Date:**	5/2/1989
RAT Code:	VS	**AGT Order No.:**	1500
RAT Short Name:	ARCH SITE	**SH OU:**	
RAT Name:	ARCHIVE SITE	**SH Code:**	
RAT Hist. Only Flag:		**SH Seq:**	
RAT NSI Indicator:	B	**SH Start Date:**	
RAT Level:	1	**SH Complete Date:**	
RAT DEF OU:	00	**SH Lead:**	
RFBS Code:		**SH Qual:**	
SPA Code:	13	**RAQ Act. Qual Short:**	
RALT Short Name:	EPA In-House	**RNPL Status Code:**	N

RAT Def: The decision is made that no further activity is planned at the site.

RNON NPL Status Desc: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Assess History

OU ID:	0	**Act Start Date:**	
Act Code ID:	1	**Act Complete Date:**	12/1/1987

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

RAT Code:	DS	**AGT Order No.:**	10
RAT Short Name:	DISCVRY	**SH OU:**	
RAT Name:	DISCOVERY	**SH Code:**	
RAT Hist. Only Flag:		**SH Seq:**	
RAT NSI Indicator:	B	**SH Start Date:**	
RAT Level:	1	**SH Complete Date:**	
RAT DEF OU:	00	**SH Lead:**	
RFBS Code:		**SH Qual:**	
SPA Code:	13	**RAQ Act. Qual Short:**	
RALT Short Name:	State (Fund)	**RNPL Status Code:**	N

RAT Def: The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.

RNON NPL Status Desc: NFRAP-Site does not qualify for the NPL based on existing information

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11 | 3 of 16 | NW | 0.08 / 433.48 | 935.56 / -5 | **RUST-OLEUM GROUP**
800 IOWA AVE.
RIVERSIDE CA 92507-0000 | RCRA LQG

EPA Handler ID:	CAD008353799
Gen Status Universe:	Large Quantity Generator
Contact Name:	TODD A GUIMOND
Contact Address:	800 , IOWA AVE , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext:	818-518-4968
Contact Email:	TODD.GUIMOND@RUSTOLEUM.COM
Contact Country:	US
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	Private
Receive Date:	20200828
Location Latitude:	34.001856
Location Longitude:	-117.339822

Violation/Evaluation Summary

Note: VIOLATION or UNDETERMINED: There are VIOLATION or UNDETERMINED details or records associated with this facility (EPA ID) in the Compliance Monitoring and Enforcement table dated Jan, 2022.

Violation Details

Found Violation:	Yes
Citation:	
Violation Short Description:	Generators - Records/Reporting
Violation Type:	262.D
Violation Determined Date:	20190711
Scheduled Compliance Date:	
Return to Compliance:	Documented
Actual Return to Compl:	20190724
Violation Responsible Agency:	State

Evaluation Details

Evaluation Start Date:	20190711
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:	Generators - Records/Reporting
Return to Compliance Date:	20190724
Evaluation Agency:	State
Evaluation Start Date:	19920928
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:	
Return to Compliance Date:	
Evaluation Agency:	State Contractor/Grantee

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19800815
Handler Name: SWEETHEART CUP CO., INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19920302
Handler Name: SWEETHEARAT CUP CO., INC.
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19960901
Handler Name: SWEETHEART CUP CO., INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Implementer

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 19960901
Handler Name: SWEETHEART CUP CO., INC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Implementer

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 20130411
Handler Name: RUST OLEUM GROUP
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20160516
Handler Name: RUST-OLEUM
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report update with Notification

Waste Code Details

Hazardous Waste Code: 331
Waste Code Description: Off-specification, aged, or surplus organics

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D035
Waste Code Description: METHYL ETHYL KETONE

Hazardous Waste Code: U002
Waste Code Description: 2-PROPANONE (I) (OR) ACETONE (I)

Hazardous Waste Code: U159
Waste Code Description: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

Hazardous Waste Code: U220
Waste Code Description: BENZENE, METHYL- (OR) TOLUENE

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 20181027
Handler Name: RUST-OLEUM GROUP
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report update with Notification

Waste Code Details

Hazardous Waste Code: 135
Waste Code Description: Unspecified aqueous solution

Hazardous Waste Code: 331
Waste Code Description: Off-specification, aged, or surplus organics

Hazardous Waste Code: 343
Waste Code Description: Unspecified organic liquid mixture

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D005
Waste Code Description: BARIUM

Hazardous Waste Code: D006

Waste Code Description: CADMIUM

Hazardous Waste Code: D007
Waste Code Description: CHROMIUM

Hazardous Waste Code: D008
Waste Code Description: LEAD

Hazardous Waste Code: D035
Waste Code Description: METHYL ETHYL KETONE

Hazardous Waste Code: F003
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Hazardous Waste Code: F005
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Hazardous Waste Handler Details

Sequence No: 3
Receive Date: 20200828
Handler Name: RUST-OLEUM GROUP
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report update with Notification

Waste Code Details

Hazardous Waste Code: 122
Waste Code Description: Alkaline solution without metals (pH > 12.5)

Hazardous Waste Code: 135
Waste Code Description: Unspecified aqueous solution

Hazardous Waste Code: 331
Waste Code Description: Off-specification, aged, or surplus organics

Hazardous Waste Code: 343
Waste Code Description: Unspecified organic liquid mixture

Hazardous Waste Code: 352
Waste Code Description: Other organic solids

Hazardous Waste Code: 551
Waste Code Description: Laboratory waste chemicals

Hazardous Waste Code: 791
Waste Code Description: Liquids with pH < 2

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D005
Waste Code Description: BARIUM

Hazardous Waste Code: D006
Waste Code Description: CADMIUM

Hazardous Waste Code: D007
Waste Code Description: CHROMIUM

Hazardous Waste Code: D008
Waste Code Description: LEAD

Hazardous Waste Code: D035
Waste Code Description: METHYL ETHYL KETONE

Hazardous Waste Code: F003
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Hazardous Waste Code: F005
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	NOT REQUIRED
Name:	LILY-TULIP, INC.	**Street 2:**	
Date Became Current:		**City:**	NOT REQUIRED
Date Ended Current:		**State:**	ME
Phone:	415-555-1212	**Country:**	
Source Type:	Implementer	**Zip Code:**	99999
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	
Name:	FRED ORTEGA	**Street 2:**	
Date Became Current:	20120801	**City:**	
Date Ended Current:		**State:**	
Phone:		**Country:**	
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	
Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 777
Name:	RPM	**Street 2:**	
Date Became Current:	19940504	**City:**	MEDINA
Date Ended Current:		**State:**	OH
Phone:	800-776-4488	**Country:**	US
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	44258
Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	1800 AVE OF THE STARS
Name:	PSIP MAGELLAN RIVERSIDE I LLC	**Street 2:**	STE 105
Date Became Current:	20100901	**City:**	LOS ANGELES
Date Ended Current:		**State:**	CA
Phone:	310-277-8337	**Country:**	US
Source Type:	Notification	**Zip Code:**	90067
Owner/Operator Ind:	Current Owner	**Street No:**	11
Type:	Private	**Street 1:**	E, HAWTHORN PKWY
Name:	RUST-OLEUM	**Street 2:**	
Date Became Current:	20120601	**City:**	VERNON HILLS

Date Ended Current:		**State:**	IL
Phone:	818-518-4968	**Country:**	US
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	60061
Owner/Operator Ind:	Current Operator	**Street No:**	800
Type:	Private	**Street 1:**	IOWA AVE
Name:	RUST-OLEUM	**Street 2:**	
Date Became Current:	20120601	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	818-518-4968	**Country:**	US
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	92507
Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	NOT REQUIRED
Name:	OWENS ILLINOIS INC	**Street 2:**	
Date Became Current:		**City:**	NOT REQUIRED
Date Ended Current:		**State:**	ME
Phone:	415-555-1212	**Country:**	
Source Type:	Notification	**Zip Code:**	99999
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	
Name:	RUST OLEUM	**Street 2:**	
Date Became Current:	20120601	**City:**	
Date Ended Current:		**State:**	
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	

Historical Handler Details

Receive Dt:	20181027
Generator Code Description:	Large Quantity Generator
Handler Name:	RUST-OLEUM GROUP
Receive Dt:	20160516
Generator Code Description:	Large Quantity Generator
Handler Name:	RUST-OLEUM
Receive Dt:	20130411
Generator Code Description:	Large Quantity Generator
Handler Name:	RUST OLEUM GROUP
Receive Dt:	19960901
Generator Code Description:	Small Quantity Generator
Handler Name:	SWEETHEART CUP CO., INC
Receive Dt:	19960901
Generator Code Description:	Large Quantity Generator
Handler Name:	SWEETHEART CUP CO., INC
Receive Dt:	19920302
Generator Code Description:	Large Quantity Generator
Handler Name:	SWEETHEARAT CUP CO., INC.
Receive Dt:	19800815
Generator Code Description:	Large Quantity Generator
Handler Name:	SWEETHEART CUP CO., INC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	4 of 16	NW	0.08 / 433.48	935.56 / -5	SWEETHEART CUP COMPANY 800 IOWA AVENUE RIVERSIDE CA	DEED

Global ID:	SLT8R1894068
Site Type:	Land Disposal Site
Status:	Open
Status Date:	1/1/1965
County:	Riverside

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Latitude: 34.01208
Longitude: -117.338825
Search URL: https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT8R1894068

Regulatory Activities GeoTracker Download

Action Type: ENFORCEMENT
Action: Deed Restriction / Land Use Restriction / Covenant
Action Date: 9/4/2008

Sites from GeoTracker Search - Regulatory Activities

Action: Deed Restriction / Land Use Restriction / Covenant
Action Type: Other Regulatory Actions
Action Date: 9/4/2008
Received Issue Date: 9/4/2008
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SLT8R1894068&enforcement_id=6193866&temptable=ENFORCEMENT
Title Description Comments:

Covenant And Environmental Restrictions

Sites from GeoTracker Search - Deed Restrictions

Date Recorded: 9/4/2008
Site Management Requirements: SEE LAND USE CONTROL DOCUMENT
Covenant Doc Link: https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/2481199502/LA-805476-v2-Deed%20Restriction%20Oakmont%20Hunter%20-%2009%2004%2008.pdf

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11	5 of 16	NW	0.08 / 433.48	935.56 / -5	**SWEETHEART CUP COMPANY** **800 IOWA AVENUE** **RIVERSIDE CA**	LDS

Global ID: SLT8R1894068
County: Riverside
Latitude: 34.01208
Longitude: -117.338825

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No: SLT8R189
Loc Case No:
Status: Open
Status Date: 1/1/1965
Begin Date:
Case Type: Land Disposal Site
Qty Released Gallons:
Cal Enviroscreen: 91-95%
CUF Case: NO
Potential COC:
Potential Media of Concern:
How Discovered:
How Discovered Description:
Stop Method:
Stop Description:
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Discharge Cause:
Coordinate Source: Manual Entry on Screens
Discharge Source:
Site History:
EPA Region: 9
Lead Agency: SANTA ANA RWQCB (REGION 8)
Caseworker:
Local Agency:
File Location:
Military DoD Site: No
Leak Reported Dt:
No Further Action Dt:

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action: Other Report / Document
Date: 2008-09-29 00:00:00
Action Type: RESPONSE

Action: Deed Restriction / Land Use Restriction / Covenant
Date: 2008-09-04 00:00:00
Action Type: ENFORCEMENT

LDS Sites from GeoTracker Search - Regulatory Profile (as of Oct 20, 2021)

Site Facility Name: SWEETHEART CUP COMPANY
Site Facility Type: LAND DISPOSAL SITE
Cleanup Status: OPEN
Project Status:
Potential COC: NONE SPECIFIED
WDR Place Type:
Wdr File No:
Wdr Order No:
Address: 800 IOWA AVENUE
City: RIVERSIDE
Zip:
County: RIVERSIDE
Cuf Claim No:
CUF Priority Assig:
CUF Amount Paid:
Designated Beneficial Use: MUN, AGR, IND, PROC
Designated Beneficl Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT8R1894068
Cleanup Status Detail: OPEN AS OF 1/1/1965
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=SLT8R1894068&tabname=regulatoryhistory
Potential Media of Concern: NONE SPECIFIED
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Facility Type: TITLE 27 - MUNICIPAL SOLID WASTE LANDFILL
Composting Method:
Gndwater Monitoring Frequen:
Cleanup Oversight Agencies: SANTA ANA RWQCB (REGION 8) (LEAD) - CASE #: SLT8R189
File Location:
Site History:

No site history available

LDS Sites from GeoTracker Search - Deed Restrictions (as of Oct 20, 2021)

Date Recorded: 9/4/2008
Covenant Doc Link: https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/2481199502/LA-805476-v2-Deed%20Restriction%20Oakmont%20Hunter%20-%2009%2004%2008.pdf
Site Management Rqmts: SEE LAND USE CONTROL DOCUMENT

LDS Sites from GeoTracker Search - Regulatory Activities (as of Oct 20, 2021)

Action Type: Other Regulatory Actions
Action: Deed Restriction / Land Use Restriction / Covenant
Action Date: 9/4/2008
Received Issue Date: 9/4/2008
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SLT8R1894068&enforcement_id=6193866&temptable=ENFORCEMENT
Title Description Comment: Covenant And Environmental Restrictions

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 9/29/2008
Received Issue Date: 9/29/2008
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SLT8R1894068&doc_id=5997138
Title Description Comment: COVENANT AND ENVIRONMENTAL RESTRICTION ON PROPERTY Hunter Park Site -- Former Sweetheart Cup Facility

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

LDS Sites from GeoTracker Search - Documents (as of Oct 20, 2021)

Document Type:	Site Documents	**Size:**	
Document Date:	9/4/2008	**Submitted By:**	KEITH PERSON (REGULATOR)
Type:	DEED RESTRICTION / LAND USE RESTRICTION / COVENANT	**Submitted:**	
Title:	COVENANT AND ENVIRONMENTAL RESTRICTIONS		
Title Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=SLT8R1894068&enforcement_id=6193866		

Document Type:	Site Documents	**Size:**	
Document Date:	9/29/2008	**Submitted By:**	GRACE NG (REGULATOR)
Type:	OTHER REPORT / DOCUMENT	**Submitted:**	
Title:	COVENANT AND ENVIRONMENTAL RESTRICTION ON PROPERTY HUNTER PARK SITE -- FORMER SWEETHEART CUP FACILITY		
Title Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=SLT8R1894068&document_id=5997138		

11	6 of 16	NW	0.08 / 433.48	935.56 / -5	**BRINE FAC,LILY-TULIP DIV** **800 IOWA** **RIVERSIDE CA**	LDS

Global ID:	L10001353083	**Latitude:**	34.006436
County:	Riverside	**Longitude:**	-117.336943

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No:	8 332014004	**EPA Region:**	9
Loc Case No:		**Lead Agency:**	SANTA ANA RWQCB (REGION 8)
Status:	Completed - Case Closed	**Caseworker:**	KDP
Status Date:	11/2/2009	**Local Agency:**	
Begin Date:		**File Location:**	
Case Type:	Land Disposal Site	**Military DoD Site:**	No
Qty Released Gallons:		**Leak Reported Dt:**	
Cal Enviroscreen:	96-100% (highest scores)	**No Further Action Dt:**	2009-11-02 00:00:00
CUF Case:	NO		
Potential COC:			
Potential Media of Concern:			
How Discovered:			
How Discovered Description:			
Stop Method:			
Stop Description:			
Calwater Watershed Name:	Santa Ana River - Middle Santa Ana River - Riverside (801.27)		
DWR GW Subbasin Name:	Upper Santa Ana Valley - Riverside-Arlington (8-002.03)		
Disadvantaged Community:	Severely Disadvantaged Community		
Discharge Cause:			
Coordinate Source:	Google Geocode		
Discharge Source:			
Site History:			

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action:	File Review - Closure
Date:	2006-10-27 00:00:00
Action Type:	ENFORCEMENT

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type:	Regional Board Caseworker	**Address:**	3737 MAIN STREET, SUITE 500
Contact Name:	KEITH PERSON	**Email:**	keith.person@waterboards.ca.gov
City:	RIVERSIDE	**Phone No:**	
Organization Name:	SANTA ANA RWQCB (REGION 8)		

LDS Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 2009-11-02 00:00:00

LDS Sites from GeoTracker Search - Regulatory Profile (as of Oct 20, 2021)

Site Facility Name: BRINE FAC,LILY-TULIP DIV
Site Facility Type: LAND DISPOSAL SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
Potential COC: NONE SPECIFIED
WDR Place Type:
Wdr File No:
Wdr Order No:
Address: 800 IOWA
City: RIVERSIDE
Zip:
County: RIVERSIDE
Cuf Claim No:
CUF Priority Assig:
CUF Amount Paid:
Designated Beneficial Use: MUN, AGR, IND, PROC
Designated Beneficl Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=L10001353083
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 11/2/2009
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=L10001353083&tabname=regulatoryhistory
Potential Media of Concern: NONE SPECIFIED
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Facility Type: TITLE 27 - SURFACE IMPOUNDMENT
Composting Method:
Gndwater Monitoring Frequen:
Cleanup Oversight Agencies: SANTA ANA RWQCB (REGION 8) (LEAD) - CASE #: 8 332014004
CASEWORKER: KEITH PERSON
File Location:
Site History:

No site history available

LDS Sites from GeoTracker Search - Cleanup Status History (as of Oct 20, 2021)

Status: Completed - Case Closed
Date: 11/2/2009

LDS Sites from GeoTracker Search - Regulatory Activities (as of Oct 20, 2021)

Action Type: Other Regulatory Actions
Action: File Review - Closure
Action Date: 10/27/2006
Received Issue Date: 10/27/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=L10001353083&enforcement_id=6051441&temptable=ENFORCEMENT
Title Description Comment: Site Closure Letter

LDS Sites from GeoTracker Search - Documents (as of Oct 20, 2021)

Document Type: Site Documents
Document Date: 10/27/2006
Type: FILE REVIEW - CLOSURE
Title: SITE CLOSURE LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=L10001353083&enforcement_id=6051441
Size:
Submitted By: KEITH PERSON (REGULATOR)
Submitted:

11	7 of 16	NW	0.08 / 433.48	935.56 / -5	***LILY-TULIP CO (OFF SITE DISPOSAL AREA)*** ***800 IOWA AVENUE*** ***RIVERSIDE CA 92502***	***ENVIROSTOR***

Estor/EPA ID: 33490044
Site Code:
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6065042209
Site Type: * HISTORICAL
Address Description: 800 IOWA AVENUE
Office: CLEANUP CYPRESS
Special Program: * CERC2
Funding:
Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 34.0070745167069
Longitude: -117.338095686311
Acres: NONE SPECIFIED
Supervisor:
Cleanup Status: REFER: OTHER AGENCY AS OF 10/25/1994
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Potential Contamin of Concern:

UNCATEGORIZED

Site History:

Status: REFER: OTHER AGENCY
Program Type: HISTORICAL
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33490044

Completed Activities

Title: Discovery
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Discovery
Date Completed: 2/28/1983
Comments: FACILITY IDENTIFIED ID FROM RWQCB DISCH TO LINED EVAPO-TRANSPORATION PIT ONSITE. HIGH CONCENTRTN OF PHENOLS,BORON PRESENT. DISP AREA IS OFF SITE-E OF 71, S OF CAJALCO RE,N OF WERICK RD. ON TBM NO.27 & 37,RIVERSIDE COUNTY.

Title: Preliminary Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 6/27/1988
Comments: PRELIM ASSESS DONE RWQCB RESCINDED CLEANUP AND ABATEMENT ORDER IN 1987 COMPANY FULFILLED REQUIRE- MENTS NO OFFSITE DISPOSAL PITS. RECOMMENDATION SITE INSPECTION LOW PRIORITY

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 10/25/1994
Comments: Site screening/file review indicates NFA for DTSC.

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Sub Area Link:
Document Type: Site Screening
Date Completed: 3/24/1987
Comments: SITE SCREENING DONE DIVISION OF OWENS ILLINOIS. MORE INFO NEEDED

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11 | 8 of 16 | NW | 0.08 / 433.48 | 935.56 / -5 | LILY TULIP INC
800 IOWA AVENUE
RIVERSIDE CA 92507 | HHSS

County: Riverside
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f7b8.pdf

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11 | 9 of 16 | NW | 0.08 / 433.48 | 935.56 / -5 | LILY-TULIP INC
800 IOWA AVE
RIVERSIDE CA 92502 | SEMS ARCHIVE

Site ID: 0903171
EPA ID: CAD008353799
Superfund Alt Agmt: No
Federal Facility: No
FF Docket: No
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

FIPS Code: 06065
Cong District: 36
Region: 09
County: RIVERSIDE

Action Information

Operable Units: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Actual:
Finish Actual: 05/02/1989
Qual: N
Curr Action Lead: St Perf

Operable Units: 00
Action Code: VS
Action Name: ARCH SITE
SEQ: 1
Start Actual:
Finish Actual: 05/02/1989
Qual:
Curr Action Lead: EPA Perf In-Hse

Operable Units: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Actual: 12/01/1987
Finish Actual: 12/01/1987
Qual:
Curr Action Lead: St Perf

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11 | 10 of 16 | NW | 0.08 / 433.48 | 935.56 / -5 | SWEETHEART CUP CO INC
800 IOWA AVE
RIVERSIDE CA 92507 | EMISSIONS

1996 Criteria Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 21.1
ROGT: 19.02973
COT: 1.2
NOXT: 2.4
SOXT: 0
PMT: .3
PM10T: .3

1996 Toxic Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
CERR Code:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	11 of 16	NW	0.08 / 433.48	935.56 / -5	SWEETHEART CUP CO INC 800 IOWA AV RIVERSIDE CA 92507	EMISSIONS

1987 Criteria Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 22.2
ROGT: 22.08446
COT: .9
NOXT: 3.3
SOXT: 0
PMT: .2
PM10T: .2

1987 Toxic Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

1990 Criteria Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 14.2
ROGT: 14.08446
COT: 1.3
NOXT: 4.7
SOXT: .1
PMT: .3
PM10T: .3

1990 Toxic Data

Facility ID: 7940
Facility SIC Code: 3089
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

1993 Criteria Data

Facility ID: 7940
Facility SIC Code: 3089
CERR Code:
TOGT: 12.5

CO:	33	**ROGT:**	11.37691
Air Basin:	SC	**COT:**	1.3
District:	SC	**NOXT:**	4.9
COID:	RIV	**SOXT:**	0
DISN:	SOUTH COAST AQMD	**PMT:**	.3
CHAPIS:		**PM10T:**	.3

1993 Toxic Data

Facility ID:	7940	**COID:**	RIV
Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1995 Criteria Data

Facility ID:	7940	**CERR Code:**	
Facility SIC Code:	3089	**TOGT:**	12.5
CO:	33	**ROGT:**	11.37691
Air Basin:	SC	**COT:**	1.3
District:	SC	**NOXT:**	4.9
COID:	RIV	**SOXT:**	0
DISN:	SOUTH COAST AQMD	**PMT:**	.3
CHAPIS:		**PM10T:**	.3

1995 Toxic Data

Facility ID:	7940	**COID:**	RIV
Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1997 Criteria Data

Facility ID:	7940	**CERR Code:**	
Facility SIC Code:	3089	**TOGT:**	18.8840002708
CO:	33	**ROGT:**	18.01190011435884
Air Basin:	SC	**COT:**	1.1120005719
District:	SC	**NOXT:**	2.120001091
COID:	RIV	**SOXT:**	.02700001356
DISN:	SOUTH COAST AQMD	**PMT:**	.2380001225
CHAPIS:		**PM10T:**	.2380001225

1997 Toxic Data

Facility ID:	7940	**COID:**	RIV
Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			

Non-Cancer Acute Haz Ind:

1998 Criteria Data

Facility ID:	7940	**CERR Code:**	
Facility SIC Code:	3089	**TOGT:**	18.9180002885
CO:	33	**ROGT:**	18.02625832183355
Air Basin:	SC	**COT:**	1.1120005719
District:	SC	**NOXT:**	2.120001091
COID:	RIV	**SOXT:**	.02700001356
DISN:	SOUTH COAST AQMD	**PMT:**	.2380001225
CHAPIS:		**PM10T:**	.2380001225

1998 Toxic Data

Facility ID:	7940	**COID:**	RIV
Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1999 Criteria Data

Facility ID:	7940	**CERR Code:**	
Facility SIC Code:	3089	**TOGT:**	18.8840002708
CO:	33	**ROGT:**	18.01190011435884
Air Basin:	SC	**COT:**	1.1120005719
District:	SC	**NOXT:**	2.120001091
COID:	RIV	**SOXT:**	.02700001356
DISN:	SOUTH COAST AQMD	**PMT:**	.2380001225
CHAPIS:		**PM10T:**	.2380001225

1999 Toxic Data

Facility ID:	7940	**COID:**	RIV
Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2000 Criteria Data

Facility ID:	7940	**CERR Code:**	
Facility SIC Code:	3089	**TOGT:**	18.8840002708
CO:	33	**ROGT:**	18
Air Basin:	SC	**COT:**	1.1120005719
District:	SC	**NOXT:**	2.120001091
COID:	RIV	**SOXT:**	.02700001356
DISN:	SOUTH COAST AQMD	**PMT:**	.2380001225
CHAPIS:		**PM10T:**	.24

2000 Toxic Data

Facility ID:	7940	**COID:**	RIV

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility SIC Code:	3089	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

11	12 of 16	NW	0.08 / 433.48	935.56 / -5	**Rustoleum** **800 IOWA AVE** **RIVERSIDE CA 92507**	CERS HAZ

Site ID:	63442
Latitude:	34.007076
Longitude:	-117.338097
County:	

Regulated Programs

EI ID:	10414141	**EI Description:**	Hazardous Waste Generator
EI ID:	10414141	**EI Description:**	Chemical Storage Facilities
EI ID:	10414141	**EI Description:**	RCRA LQ HW Generator

Violations

Violation Date:	07/11/2019	**Violation Source:**	CERS
Violation Program:	HWLQG	**Violation Division:**	Riverside County Department of Env Health
Citation:	22 CCR 31 67100.9 - California Code of Regulations, Title 22, Chapter 31, Section(s) 67100.9		
Violation Notes:			

Returned to compliance on 07/24/2019.

Violation Description:

Failure of a large quantity generator to prepare a summary progress report every four years, using DTSC's Form # 1262 (3/99) titled "Summary Progress Report".

Violations

Violation Date:	07/11/2019	**Violation Source:**	CERS
Violation Program:	HWLQG	**Violation Division:**	Riverside County Department of Env Health
Citation:	22 CCR 31 67100.8 - California Code of Regulations, Title 22, Chapter 31, Section(s) 67100.8		
Violation Notes:			

Returned to compliance on 07/24/2019.

Violation Description:

Failure of a generator to conduct, when required, a source reduction evaluation review and plan every four years, and/or failure of the review and plan to contain all required information.

Violations

Violation Date:	07/11/2019	**Violation Source:**	CERS
Violation Program:	HWLQG	**Violation Division:**	Riverside County Department of Env Health
Citation:	HSC 6.5 25244.21 - California Health and Safety Code, Chapter 6.5, Section(s) 25244.21		
Violation Notes:			

Returned to compliance on 07/24/2019.

Violation Description:

Failure to adequately complete, and maintain for review, all requirements of the source reduction evaluation review and plan (SB-14).

Evaluations

Eval Date: 07/22/2021
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/05/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/11/2019
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HWLQG
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Parent Corporation
Entity Name: Rustoleum
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Rustoleum
Entity Title:
Address: 11 Hawthorne Parkway
City: Vernon Hills
State: IL

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Country: United States
Zip Code: 60061
Phone: (947) 367-7700

Affil Type Desc: Environmental Contact
Entity Name: Cory Mitchnick
Entity Title:
Address: 800 Iowa Ave
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Operator
Entity Name: Cory Mitchnick
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 715-2851

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 800 Iowa Ave
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Document Preparer
Entity Name: Todd Guimond
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Identification Signer
Entity Name: Todd Guimond
Entity Title: H&S Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Coordinates

Env Int Type Code: HMBP
Program ID: 10414141
Latitude: 34.007080
Longitude: -117.338100
Coord Name:
Ref Point Type Desc: Center of a facility or station.

11	13 of 16	NW	0.08 / 433.48	935.56 / -5	LILY TULIP INC. 800 IOWA AVENUE RIVERSIDE CA	HIST TANK

Owner Name: LILY TULIP INC.
Owner Street: 1550 WRIGHTSBORO RD.
Owner City: AUGUSTA
No of Containers: 2
County: RIVERSIDE
Facility State: CA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Owner State:	GA			**Facility Zip:**	92507	
Owner Zip:	30903					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	14 of 16	NW	0.08 / 433.48	935.56 / -5	**Rust-oleum** **800 Iowa Ave** **Riverside CA 92507**	**HWG RIVERSIDE**

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	15 of 16	NW	0.08 / 433.48	935.56 / -5	**LILY-TULIP CO (OFF SITE DISPOSAL AREA)** **800 IOWA AVENUE** **RIVERSIDE CA 92502**	**CALSITES**

ID No:	33490044	**Assembly:**	
Status Date:	10/25/1994	**Senate:**	
NPL:		**Region:**	4
Tier:		**Region Name:**	LONG BEACH
Fund:		**County Co:**	33
Access :	C	**Facility County:**	RIVERSIDE
Access Code:	CONTROLLED	**Lat Deg:**	0
Cortese:		**Lat Min:**	0
Hrscore:		**Lat Sec:**	0
Hrsdate:		**Lat Dir:**	
Groundwater Contam:		**Long Deg:**	0
GW Code:	NOT REPORTED	**Long Min:**	0
No Sources:	0	**Long Sec:**	0
RWQCB Name:	SANTA ANA	**Long Dir:**	
Branch Name:	SOUTHERN CA. - B	**LImethod:**	
Staff:		**LIdesc:**	
Senior:	MMONROY		
Status Name:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY		
Type Name:	N/A		
Lead Name:	N/A		
SIC Name:	ELECTRIC, GAS & SANITARY SERVICES		
Filename:			
Comments:			

FACILITY IDENTIFIED ID FROM RWQCB DISCH TO LINED EVAPO-TRANSPORATION PIT ONSITE. HIGH CONCENTRTN OF PHENOLS,BORON PRESENT. DISP AREA IS OFF SITE-E OF 71, S OF CAJALCO RE,N OF WERICK RD. ON TBM NO.27 & 37,RIVERSIDE COUNTY. FACILITY DRIVE-BY INDICATION OF DEPRESSION ON OTHER SIDE OF BERM. UNABLE TO SEE AREA LOCATED ON MAP. BERMS VISIBLE FROM TEMESCAL CYN RD--AT WEIRICK RD. FINAL STRATEGY SITE REFERRED: TO HWMB/ENF SITE SCREENING DONE DIVISION OF OWENS ILLINOIS. MORE INFO NEEDED FACILITY DRIVE-BY NO SIGN OF HAZ WASTE PROBLEMS INDUSTRIAL AREA LARGE FACILITY PAVED WELL MAINTAINED AND LANDSCAPED BACK SURROUNDED BY ORANGE TREES ABLE TO VEIW EVAPORTION POND,NO WATER IN POND AT THIS TIME. CO. HEALTH-PERMITS FOR UNDERGROUND TANKS LOS ANGELES RWQCB CLEANUP & ABATEMENT ORDER CITY FD / PUBLIC WORKS PERMITS ON FILE PRELIM ASSESS DONE RWQCB RESCINDED CLEANUP AND ABATEMENT ORDER IN 1987 COMPANY FULFILLED REQUIRE-MENTS NO OFFSITE DISPOSAL PITS. RECOMMENDATION SITE INSPECTION LOW PRIORITY SUBMIT TO EPA NO FURTHER ACTION UNDER CERCLA 2 Site screening/file review indicates NFA for DTSC.

Background:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	16 of 16	NW	0.08 / 433.48	935.56 / -5	**BRINE FAC,LILY-TULIP DIV** **800 IOWA** **RIVERSIDE CA**	**WMUD**

Wmu ID No:	8 332014004	**Npid:**	
Wds ID No:	8 332014004	**Rptf:**	M
Swis ID No:		**Sic1:**	2654
Reg ID No:		**Sic2:**	
Edit Date:		**Swat Anms:**	
Last Edit:		**Swat Fnms:**	
Region:	8	**Atyp:**	PR
County:	33	**Anms:**	SWEETHEART CUP CO.
Wds:	TRUE	**Adep:**	

Msw:		**A Street:**	800 IOWA AVENUE
Superorder:		**A City:**	RIVERSIDE CA
Sc15:	TRUE	**A Zip:**	92502
Swat:	FALSE	**A County:**	
Tpca:	FALSE	**Afon:**	9096848040
Rcra:	FALSE	**Lnms:**	
Dod:		**Ldep:**	
Rbpo:		**L Street:**	
Openpub:		**L City:**	
Waste List:		**L State:**	
Tot Wmus:		**L Zip:**	
Secrange:		**L County:**	
Basemer:		**Lfon:**	
Fcnt:		**Ttwq:**	2
Fdep:		**Toxi:**	N
F State:	CA	**Cplx:**	C
Ffon:		**Wdrs:**	H
Ftyp:	IND	**Wtp1:**	DPROCES
Tonnage:		**Wtp2:**	
Fac Comment:			

WMU Details

Wmu ID:	8 332014004-01	**G Monitor:**	
Edit Date:		**S Monitor:**	
Last Edit:		**V Monitor:**	
Wmu Type:		**G Back:**	
Wmu Name:	BRINE FAC,LILY-TULIP DIV	**S Back:**	
Wmustatus:		**V Back:**	
Wmu Size:		**G Nonback:**	
Listed:		**S Nonback:**	
Printed:		**V Nonback:**	
Msw:		**G Date:**	
Superorder:		**S Date:**	
Sc15:	TRUE	**V Date:**	
Swat:	FALSE	**Perm Test:**	
Tpca:	FALSE	**Gw Depth:**	
Rcra:	FALSE	**Precip:**	
Dod:		**Site Alt:**	
Old Class:		**Site Alta:**	
Old Waste:		**Line Alt:**	
Old First:		**Line Alta:**	
New Class:		**Lcrs Alt:**	
New Waste:		**Lcrs Alta:**	
New First:		**Composite:**	
Stat Date:		**Line Des:**	
Cap Year:		**Liner1:**	
Closeplan:		**Line1 Type:**	
Township:		**Liner2:**	
Fault Name:		**Line2 Type:**	
Fault Distance:		**Liner3:**	
Withquake:		**Line3 Type:**	
Type Op:			
Gen Com1:			
Gen Com2:			
Gen Com3:			
Gen Com4:			
Formation:			
Form Type:			
Form Permit:			
Form Com1:			
Form Com2:			
Form Com3:			
Form Com4:			
Liner Com:			
Lcrs:			
Lcrs Type:			
Lcrs Des:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Cons Com1:						
Cons Com2:						
Cons Com3:						
Cons Com4:						
12	1 of 4	NNE	0.10 / 532.79	956.54 / 16	Doe & Ingalls of CA Operating, LLC 1060 CITRUS ST RIVERSIDE CA 92507	CERS HAZ

Site ID: 183184
Latitude: 34.008026
Longitude: -117.334877
County:

Regulated Programs

EI ID: 10509925 **EI Description:** Chemical Storage Facilities

EI ID: 10509925 **EI Description:** Hazardous Waste Generator

EI ID: 10509925 **EI Description:** Hazardous Chemical Management

Violations

Violation Date: 07/15/2021
Violation Source: CERS
Violation Program: HW
Violation Division: Riverside County Department of Env Health
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Notes:

Returned to compliance on 10/14/2021.

Violation Description:

Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violations

Violation Date: 05/17/2021
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 06/22/2021. 104A - NFPA 704 sign(s) properly posted. [RMC 16.32.020; CFC, Section 5003.5] - No NFPA 704 is posted. Provide the required NFPA 704 signage in the following locations: diesel generator

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 07/15/2021
Violation Source: CERS
Violation Program: CalARP
Violation Division: Riverside County Department of Env Health
Citation: 19 CCR 4.5 2755.6(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(a)
Violation Notes:

Violation Description:

Failure to certify that they have evaluated compliance with the provisions of 19 CCR 4.5 Article 5 at least every three years to verify that the procedures and practices developed under 19 CCR 4.5 are adequate and are being followed.

Violations

Violation Date: 07/30/2018
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 08/06/2018. Submit changes to report liquid hazardous materials , other than EHS, units shall be reported in liquid, not pounds. Provide correct size of largest container for liquid at 55gl.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 05/17/2021
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 06/22/2021. 100 - Current permit issued/posted. [RMC 9.48.140] - No current permit was posted. Obtain the current permit and post in a conspicuous location.

Violation Description:

Business Plan Program - Administration/Documentation - General Local Ordinance

Violations

Violation Date: 05/17/2021
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 06/22/2021. No HMBP has been completed nor submitted electronically in the CERS system. Complete and submit an HMBP at the following: https://cers.calepa.ca.gov. Please change the phone number for the regional water quality control board to 951-782-4130.

Violation Description:

Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violations

Violation Date: 07/15/2021
Violation Source: CERS
Violation Program: HW
Violation Division: Riverside County Department of Env Health
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Notes:

Violation Description:

Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Evaluations

Eval Date: 04/26/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection

Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 04/26/2018
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 07/30/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/19/2015
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/15/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 05/17/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 04/28/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/22/2021

Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 6/22/2021 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/15/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: Parent Corporation
Entity Name: Doe & Ingalls of CA Operating, LLC
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Tammy Starr
Entity Title:
Address: 4813 Emperor Blvd.
City: Durham
State: NC
Country: United States
Zip Code: 27703
Phone: (919) 819-7501

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1060 Citrus St
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Document Preparer
Entity Name: Todd Newsome
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Environmental Contact
Entity Name: Todd Newsome
Entity Title:
Address: 4063 Stirrup Creek Drive

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

City: Durham
State: NC
Country:
Zip Code: 27703
Phone:

Affil Type Desc: Operator
Entity Name: Doe & Ingalls Management LLC
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 207-0916

Affil Type Desc: Identification Signer
Entity Name: Todd Newsome
Entity Title: Regulatory Compliance EHS Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Coordinates

Env Int Type Code: HMBP
Program ID: 10509925
Latitude: 34.008030
Longitude: -117.334880
Coord Name:
Ref Point Type Desc: Center of a facility or station.

12	2 of 4	NNE	0.10 / 532.79	956.54 / 16	**Doe & Ingalls of CA Operating, LLC** **1060 Citrus St** **Riverside CA 92507**	**HWG** **RIVERSIDE**

12	3 of 4	NNE	0.10 / 532.79	956.54 / 16	**DOE AND INGALLS OF CA OPERATING LLC** **1060 CITRUS ST** **RIVERSIDE CA 92507**	**RCRA SQG**

EPA Handler ID: CAR000204925
Gen Status Universe: Small Quantity Generator
Contact Name: OSCAR ARELLANO
Contact Address: 1060 , CITRUS STREET , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext: 951-207-0916
Contact Email: OSCAR.ARELLANO@THERMOFISHER.COM
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type: Private
Receive Date: 20211004
Location Latitude: 34.008379

Location Longitude: -117.334879

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20100202
Handler Name: DOE AND INGALLS OF CA OPERATING LLC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Code: D003
Waste Code Description: REACTIVE WASTE

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 20211004
Handler Name: DOE AND INGALLS OF CA OPERATING LLC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Code: D003
Waste Code Description: REACTIVE WASTE

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Private
Name: OSCAR ARELLANO
Date Became Current: 20081001
Date Ended Current:
Phone:
Source Type: Notification
Street No:
Street 1:
Street 2:
City:
State:
Country:
Zip Code:

Owner/Operator Ind: Current Operator
Type: Private
Name: DOE AND INGALLS PROPERTIES LLC
Date Became Current: 20080928
Date Ended Current:
Phone: 919-598-1986
Source Type: Notification
Street No: 4813
Street 1: EMPEROR BLVD.
Street 2: SUITE 300
City: DURHAM
State: NC
Country: US
Zip Code: 27713

Owner/Operator Ind: Current Owner
Type: Private
Name: DOE AND INGALLS PROPERTIES LLC
Date Became Current: 20080928
Date Ended Current:
Phone: 919-598-1986
Source Type: Notification
Street No:
Street 1: 2520 MERIDIAN PKWY
Street 2: STE 500
City: DURHAM
State: NC
Country: US
Zip Code: 27713

Owner/Operator Ind: Current Owner
Type: Private
Name: DOE AND INGALLS PROPERTIES LLC
Date Became Current: 20080928
Date Ended Current:
Phone: 919-598-1986
Source Type: Notification
Street No: 4813
Street 1: EMPEROR BLVD.
Street 2: SUITE 300
City: DURHAM
State: NC
Country: US
Zip Code: 27713

Historical Handler Details

Receive Dt: 20100202
Generator Code Description: Small Quantity Generator
Handler Name: DOE AND INGALLS OF CA OPERATING LLC

12	4 of 4	NNE	0.10 / 532.79	956.54 / 16	AUDENTES THERAPEUTICS INC 1060 CITRUS STREET RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAC003084104
Gen Status Universe: No Report
Contact Name: TAMI KOVAL
Contact Address: 730 DIANA AVE , , MORGAN HILL , CA, 95037 ,
Contact Phone No and Ext: 408-607-1118
Contact Email: TAMIKOVAL@GMAIL.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20200916
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20200916
Handler Name:	AUDENTES THERAPEUTICS INC
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	534 ECCLES AVE
Name:	AUDENTES THERAPEUTICS INC.	***Street 2:***	
Date Became Current:		***City:***	MORGAN HILL
Date Ended Current:		***State:***	CA
Phone:	408-607-1118	***Country:***	
Source Type:	Implementer	***Zip Code:***	95037
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	730 DIANA AVE
Name:	TAMI KOVAL	***Street 2:***	
Date Became Current:		***City:***	MORGAN HILL
Date Ended Current:		***State:***	CA
Phone:	408-607-1118	***Country:***	
Source Type:	Implementer	***Zip Code:***	95037

13	*1 of 4*	*W*	*0.10 / 543.89*	*919.41 / -22*	***RIVERSIDE TERMINAL*** ***841 IOWA AVE*** ***RIVERSIDE CA 92507***	***HHSS***

County:	Riverside
Tank Details Microfiche:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f715.pdf

13	*2 of 4*	*W*	*0.10 / 543.89*	*919.41 / -22*	***Roofline Supply*** ***841 IOWA AVE*** ***RIVERSIDE CA 92507***	***CERS HAZ***

Site ID:	367453
Latitude:	34.006504
Longitude:	-117.340492
County:	

Regulated Programs

EI ID: 10602064 ***EI Description:*** Chemical Storage Facilities

Violations

Violation Date: 07/13/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 09/15/2020. The chemical inventory has not been submitted accurately. Update chemical inventory.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 03/27/2018 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 04/19/2018.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 06/07/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 06/22/2016.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 07/13/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 09/15/2020. NFPA 704 sign(s) properly posted. [RMC 16.32.020; CFC, Section 5003.5] - No NFPA 704 is posted. Provide the required NFPA 704 signage in the following locations: both gates.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 03/29/2016 ***Violation Source:*** CERS

Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 06/22/2016.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.

Violations

Violation Date: 07/13/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 09/15/2020. No Business Activity Page and/or Business Owner/Operator ID page has been submitted. Complete the required document in CERS.

Violation Description:

Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violations

Violation Date: 07/13/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Notes:

Returned to compliance on 09/15/2020. The business plan update within 30 days has not been completed as required due to change of hazardous materials and owner/operator.

Violation Description:

Failure to electronically update business plan within 30 days of any one of the following events:
A 100 percent or more increase in the quantity of a previously disclosed material.
Any handling of a previously undisclosed hazardous materials at or above reportable quantities.
A change of business address, business ownership, or business name.
A substantial change in the handler's operations that requires modification to any portion of the business plan.

Enforcements

Enf Action Date: 03/27/2018 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. admin cite.

Enf Action Date: 06/07/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $200.00. Administrative Citation.

Enf Action Date: 04/05/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS

Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. Administrative citation.

Evaluations

Eval Date: 03/27/2018
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/13/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/07/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 03/29/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/27/2017
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 09/15/2020
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 7/13/2020 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Environmental Contact
Entity Name: Mike Eckrich
Entity Title:
Address: 841 Iowa Ave
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Identification Signer
Entity Name: Mike Eckrich
Entity Title: Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 841 Iowa Ave
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Parent Corporation
Entity Name: Roofline Supply
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Document Preparer
Entity Name: Mike Eckrich
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Name: SRS Distribution
Entity Title:
Address: 5900 S. Lake Forest Dr. Suite #400
City: Mc Kinney
State: TX
Country: United States
Zip Code: 75070
Phone: (469) 424-2216

Affil Type Desc: Operator
Entity Name: Roofline Supply
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 342-0080

Coordinates

Env Int Type Code: HMBP
Program ID: 10602064
Latitude: 34.006500
Longitude: -117.340490
Coord Name:
Ref Point Type Desc: Center of a facility or station.

---

13 **3 of 4** **W** **0.10 / 543.89** **919.41 / -22** **RIVERSIDE TERMINAL**
841 IOWA AVE.
RIVERSIDE CA
HIST TANK

Owner Name: INLAND CITIES ENTERPRISES INC.
Owner Street: 841 IOWA AVE.,
Owner City: RIVERSIDE
Owner State: CA
Owner Zip: 92507
No of Containers: 5
County: RIVERSIDE
Facility State: CA
Facility Zip: 92507

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13 **4 of 4** **W** **0.10 / 543.89** **919.41 / -22** **RIVERSIDE TERMINAL**
841 IOWA AVE
RIVERSIDE CA
UST SWEEPS

C C: A33-000-1122
BOE: 44-017862
Comp: 1122
Status: ACTIVE
No of Tanks: 5
Jurisdict: RIVERSIDE COUNTY
Agency: ENVIRONMENTAL HEALTH - U.S.T.
Phone:
D Filename: SITE16A
Page No: 108
County: RIVERSIDE
State : CA
Zip: 92507
Latitude: 34.006753
Longitude: -117.339906
Georesult: S5HPNTSCZA

Tank Details

Tank ID: 000003
O Tank ID: 000907
SWRCB No: 33-000-001122-000003
Removed:
Installed:
A Date: 04-30-90
Capac: 5000
Tank Use: M.V. FUEL
S Contain:
Stg: P
Storage :
Storag Type: PRODUCT
P Contain:
Content: REG UNLEADED
ONA:
D File Name: TANK16A

Tank Details

Tank ID: 000002
O Tank ID: 000907
S Contain:
Stg: P

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

SWRCB No:	33-000-001122-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-30-90	**Content:**	DIESEL
Capac:	5000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000005	**S Contain:**	
O Tank ID:	000907	**Stg:**	W
SWRCB No:	33-000-001122-000005	**Storage :**	
Removed:		**Storag Type:**	WASTE
Installed:		**P Contain:**	
A Date:	04-30-90	**Content:**	WASTE OIL
Capac:	1000	**ONA:**	
Tank Use:	OIL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	000907	**Stg:**	P
SWRCB No:	33-000-001122-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-30-90	**Content:**	DIESEL
Capac:	10000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000004	**S Contain:**	
O Tank ID:	000907	**Stg:**	P
SWRCB No:	33-000-001122-000004	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-30-90	**Content:**	LUBE OIL
Capac:	5000	**ONA:**	
Tank Use:	PETROLEUM	**D File Name:**	TANK16A

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
14	1 of 2	NNE	0.12 / 639.33	958.33 / 17	**Christie Digital Systems USA, Inc.** **1080 CITRUS ST** **RIVERSIDE CA 92507**	CERS HAZ

Site ID:	408453
Latitude:	34.007446
Longitude:	-117.334885
County:	

Regulated Programs

EI ID:	10602205	**EI Description:**	Chemical Storage Facilities

Evaluations

Eval Date:	06/28/2021
Violations Found:	No
Eval General Type:	Compliance Evaluation Inspection
Eval Type:	Routine done by local agency
Eval Division:	Riverside City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/12/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Affiliations

Affil Type Desc: Identification Signer
Entity Name: albert franco
Entity Title: Sr Facilities Manager
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Property Owner
Entity Name: Ushio America
Entity Title:
Address: 10550 Camden Dr
City: Cypress
State: CA
Country: United States
Zip Code: 90630
Phone: (714) 220-3568

Affil Type Desc: Document Preparer
Entity Name: Albert Franco
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Operator
Entity Name: Attn: EMS Manager
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (714) 229-2711

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Facility Mailing Address

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Name: Mailing Address
Entity Title:
Address: 10550 Camden Dr
City: Cypress
State: CA
Country:
Zip Code: 90630
Phone:

Affil Type Desc: Parent Corporation
Entity Name: Christie Digital Systems USA, Inc.
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Environmental Contact
Entity Name: Albert Franco
Entity Title:
Address: 10550 Camden Drive
City: Cypress
State: CA
Country:
Zip Code: 90630
Phone:

Affil Type Desc: Legal Owner
Entity Name: Christe Digital Systems USA, Inc.
Entity Title:
Address: 1080 Citrus St
City: Cypress
State: CA
Country: United States
Zip Code: 90630
Phone: (714) 236-8610

Coordinates

Env Int Type Code: HMBP
Program ID: 10602205
Latitude: 34.007450
Longitude: -117.334880
Coord Name:
Ref Point Type Desc: Center of a facility or station.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
14	2 of 2	NNE	0.12 / 639.33	958.33 / 17	CHRISTIE DIGITAL SYSTEMS USA, INC. 1080 CITRUS ST - RIVERSIDE CA 92507	SSTS

EPA Region: 9
Establishment No: 97773-CA-2
Est Create Update Date:
Est Site County: Riverside
Est Site Country: USA
Est Mailing Address: 1080 CITRUS ST
Est Mailing Address Line 2: -
Est Mail City: RIVERSIDE
Est Mail State: CA
Est Mail Zip: 92507
Est Mail Country: USA
Company Name: Christie Digital Systems, Inc.
Co Site Address Line 1: 10550 Camden Drive
Co Site Address Line 2: -
Co Site City: Cypress
Co Site State: CA
Co Site Zip: 90630

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Co Site Country:	USA
Co Mailing Address Line 1:	10550 Camden Drive
Co Mail Address Line 2:	-
Co Mail City:	Cypress
Co Mail State:	CA
Co Mail Zip:	90630
Co Mail Country:	USA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
15	1 of 1	NNE	0.14 / 722.44	954.40 / 13	AMA PLASTICS 1100 CITRUS ST RIVERSIDE CA 92507-1731	RCRA NON GEN

EPA Handler ID:	CAL000362435
Gen Status Universe:	No Report
Contact Name:	BRADLEY GARDNER
Contact Address:	1100 CITRUS E STREET , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	951-733-5951
Contact Email:	B.GARDNER@AMAPLASTICS.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20110401
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20110401
Handler Name:	AMA PLASTICS
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	1100 CITRUS E STREET

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Name: BRADLEY GARDNER
Date Became Current:
Date Ended Current:
Phone: 951-733-5951
Source Type: Implementer

Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Owner
Type: Other
Name: AMA PLASTICS
Date Became Current:
Date Ended Current:
Phone: 951-734-5600
Source Type: Implementer

Street No:
Street 1: 1100 CITRUS ST
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507-1731

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16 | 1 of 1 | WSW | 0.15 / 787.80 | 915.92 / -25 | **ALUMAX MILL PRODUCTS, INC.**
1495 COLUMBIA AVENUE
RIVERSIDE CA 92507 | ENVIROSTOR

Estor/EPA ID: 71002525
Site Code:
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6065042209
Site Type: TIERED PERMIT
Address Description: 1495 COLUMBIA AVENUE
Office: CLEANUP CYPRESS
Special Program:
Funding:

Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 34.003803
Longitude: -117.341104
Acres: NONE SPECIFIED
Supervisor:

Cleanup Status: INACTIVE - NEEDS EVALUATION AS OF
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Potential Contamin of Concern:

NONE SPECIFIED

Site History:

Status: INACTIVE - NEEDS EVALUATION
Program Type: TIERED PERMIT
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=71002525

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17 | 1 of 1 | E | 0.15 / 801.85 | 976.25 / 35 | **VETERINARY SERVICE INC.**
935 PALMYRITA AVE
RIVERSIDE CA 92507 | RCRA NON GEN

EPA Handler ID: CAC003066382
Gen Status Universe: No Report
Contact Name: CHRIS DOORACK
Contact Address: 935 PALMYRITA AVE , , RIVERSIDE , CA, 92507-1819 ,
Contact Phone No and Ext: 951-328-4900
Contact Email: CHRIS.DOORACK@VSI.CC
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20200511
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records

associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20200511
Handler Name:	VETERINARY SERVICE INC.
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1600 N CARPENTER RD #D
Name:	VETERINARY SERVICE INC	***Street 2:***	
Date Became Current:		***City:***	MODESTO
Date Ended Current:		***State:***	CA
Phone:	951-328-4900	***Country:***	
Source Type:	Implementer	***Zip Code:***	95351
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	935 PALMYRITA AVE
Name:	CHRIS DOORACK	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-328-4900	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507-1819

18	***1 of 2***	***SW***	***0.16 / 828.92***	***927.57 / -13***	***JUICED RITE LLC 1229 COLUMBIA AVE SUITE C1 RIVERSIDE CA 92507***	***RCRA NON GEN***

EPA Handler ID:	CAC002967521
Gen Status Universe:	No Report
Contact Name:	STEVE DUCKWORTH
Contact Address:	1229 COLUMBIA AVE SUITE C1 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	909-464-8253
Contact Email:	STEVE@JUICEDRITE.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20180621
Location Latitude:	34.001215
Location Longitude:	-117.338328

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20180621
Handler Name:	JUICED RITE LLC
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1229 COLUMBIA AVE SUITE C1
Name:	JUICED RITE LLC	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	909-464-8253	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1229 COLUMBIA AVE SUITE C1
Name:	STEVE DUCKWORTH	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	909-464-8253	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507

18	***2 of 2***	***SW***	***0.16 / 828.92***	***927.57 / -13***	***JUICED RITE LLC 1229 COLUMBIA AVE C1 RIVERSIDE CA 92507***	***RCRA NON GEN***

EPA Handler ID:	CAL000442930
Gen Status Universe:	No Report
Contact Name:	STEVEN DUCKWORTH
Contact Address:	1229 COLUMBIA AVE C1 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	909-464-8253
Contact Email:	STEVE@JUICEDRITE.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Land Type:
Receive Date: 20190131
Location Latitude: 34.001215
Location Longitude: -117.338328

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190131
Handler Name: JUICED RITE LLC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: GREG ELBERT/DAVID ELBERT
Date Became Current:
Date Ended Current:
Phone: 503-799-3563
Source Type: Implementer
Street No:
Street 1: 1764 S BIG SKY WAY
Street 2:
City: OREGON CITY
State: OR
Country:
Zip Code: 97045

Owner/Operator Ind: Current Operator
Type: Other
Name: STEVEN DUCKWORTH
Date Became Current:
Date Ended Current:
Phone: 909-464-8253
Source Type: Implementer
Street No:
Street 1: 1229 COLUMBIA AVE C1
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

19	1 of 1	ENE	0.17 / 899.23	972.72 / 32	MODULAR STRUCTURES INT'L INC 920 CITRUS AV RIVERSIDE CA 92507	EMISSIONS

1997 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	12.917
CO:	33	**ROGT:**	12.2947591
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	10.837
CHAPIS:		**PM10T:**	4.3348

1997 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1998 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	12.809
CO:	33	**ROGT:**	12.2083591
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	10.837
CHAPIS:		**PM10T:**	4.3348

1998 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1999 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	12.917
CO:	33	**ROGT:**	12.2947591
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	10.837
CHAPIS:		**PM10T:**	4.3348

1999 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		

TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

2000 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	12.917
CO:	33	**ROGT:**	12.3
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	10.837
CHAPIS:		**PM10T:**	4.33

2000 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		

TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

2001 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	10.06
CO:	33	**ROGT:**	9.48
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	1.06
CHAPIS:		**PM10T:**	.42

2001 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		

TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

2002 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	12.162107
CO:	33	**ROGT:**	11.4507017577
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	5.71
CHAPIS:		**PM10T:**	5.4816

2002 Toxic Data

Facility ID:	85052	***COID:***	RIV
Facility SIC Code:	2452	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2003 Criteria Data

Facility ID:	85052	***CERR Code:***	
Facility SIC Code:	2452	***TOGT:***	12.162096
CO:	33	***ROGT:***	11.43
Air Basin:	SC	***COT:***	
District:	SC	***NOXT:***	
COID:	RIV	***SOXT:***	
DISN:	SOUTH COAST AQMD	***PMT:***	5.71
CHAPIS:		***PM10T:***	5.48

2003 Toxic Data

Facility ID:	85052	***COID:***	RIV
Facility SIC Code:	2452	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2004 Criteria Data

Facility ID:	85052	***CERR Code:***	
Facility SIC Code:	2452	***TOGT:***	13.8489
CO:	33	***ROGT:***	11.319776
Air Basin:	SC	***COT:***	
District:	SC	***NOXT:***	
COID:	RIV	***SOXT:***	
DISN:	SOUTH COAST AQMD	***PMT:***	2.1
CHAPIS:		***PM10T:***	2.016

2004 Toxic Data

Facility ID:	85052	***COID:***	RIV
Facility SIC Code:	2452	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2005 Criteria Data

Facility ID:	85052	***CERR Code:***	
Facility SIC Code:	2452	***TOGT:***	7.42038920831490490933215391419725785051

CO:	33	**ROGT:**	6.711
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	.156
CHAPIS:		**PM10T:**	.14976

2005 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2006 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	10.911823647294589178356713426853707414 83
CO:	33	**ROGT:**	7.623
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	.081
CHAPIS:		**PM10T:**	.07776

2006 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2007 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	8.428792569659442724458204334365325077 4
CO:	33	**ROGT:**	7.623
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	.081
CHAPIS:		**PM10T:**	.07776

2007 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

2008 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	6.4860045846615680768577919119386220682929
CO:	33	**ROGT:**	5.70694
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	4.02493
CHAPIS:		**PM10T:**	3.8639328

2008 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2009 Criteria Data

Facility ID:	85052	**CERR Code:**	
Facility SIC Code:	2452	**TOGT:**	1.675871379684198757937638561490582750 69
CO:	33	**ROGT:**	1.5337787
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	RIV	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	1.49122
CHAPIS:		**PM10T:**	1.4315712

2009 Toxic Data

Facility ID:	85052	**COID:**	RIV
Facility SIC Code:	2452	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

20	*1 of 3*	*ESE*	*0.18 / 926.32*	*972.69 / 32*	***UARCO INCORPORATED*** ***990 PALMYRITA AVENUE*** ***RIVERSIDE CA 92507***	***RCRA SQG***

EPA Handler ID:	CAD009537473
Gen Status Universe:	Small Quantity Generator
Contact Name:	
Contact Address:	US
Contact Phone No and Ext:	
Contact Email:	
Contact Country:	US
County Name:	RIVERSIDE

EPA Region: 09
Land Type:
Receive Date: 19960901
Location Latitude: 34.004656
Location Longitude: -117.332322

Violation/Evaluation Summary

Note: NO VIOLATIONS: All of the compliance records associated with this facility (EPA ID) indicate NO VIOLATIONS; Compliance Monitoring and Enforcement table dated Jan, 2022.

Evaluation Details

Evaluation Start Date: 19920928
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State Contractor/Grantee

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19800818
Handler Name: UARCO INCORPORATED
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19960901
Handler Name: UARCO INCORPORATED
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Implementer

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Private
Name: UARCO INCORPORATED
Date Became Current:
Date Ended Current:
Street No:
Street 1: WEST COUNTY LINE ROAD
Street 2:
City: NOT REQUIRED
State: IL

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Phone: 312-381-7000
Source Type: Implementer
Country:
Zip Code: 99999

Owner/Operator Ind: Current Owner
Type: Private
Name: UARCO INCORPORATED
Date Became Current:
Date Ended Current:
Phone: 312-381-7000
Source Type: Notification
Street No:
Street 1: WEST COUNTY LINE ROAD
Street 2:
City: BARRINGTON
State: IL
Country:
Zip Code: 60010

Historical Handler Details

Receive Dt: 19800818
Generator Code Description: Large Quantity Generator
Handler Name: UARCO INCORPORATED

20	2 of 3	ESE	0.18 / 926.32	972.69 / 32	UARCO INCORPORATED 990 PALMYRITA AVENUE RIVERSIDE CA 92707	HHSS

County: Orange
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001fa56.pdf

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20	3 of 3	ESE	0.18 / 926.32	972.69 / 32	UARCO INCORPORATED 990 PALMYRITA AVENUE RIVERSIDE CA	HIST TANK

Owner Name: UARCO INCORPORATED
Owner Street: WEST COUNTY LINE ROAD
Owner City: BARRINGTON
Owner State: IL
Owner Zip: 60010
No of Containers: 1
County: RIVERSIDE
Facility State: CA
Facility Zip: 92707

21	1 of 2	WNW	0.18 / 938.43	922.16 / -19	RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER) 1326 CITRUS STREET RIVERSIDE CA 92507	VCP

Estor/EPA ID: 33330009
Site Code: 401742
Nat Priority List: NO
Acres: 1.5 ACRES
Special Program: VOLUNTARY CLEANUP PROGRAM
Funding: SITE PROPONENT
Assembly District: 61
Senate District: 31
School District:
Permit Renewal Lead:
Project Manager: AMIT PATHAK
Supervisor: YOLANDA GARZA
Public Partici Spclst:
Census Tract: 6065042209
County: RIVERSIDE
Latitude: 34.0081180684068
Longitude: -117.340485748483
APN: 247-140-006, 247-140-007, 247-140-014
Cleanup Status: NO FURTHER ACTION AS OF 8/5/2019
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: VOLUNTARY CLEANUP
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: FOUNDRY
Potential Media Affected: SOIL, SOIL VAPOR
Potential Contamin of Concern:

CONTAMINATED SOIL OTHER INORGANIC SOLID WASTE UNSPECIFIED OIL CONTAINING WASTE UNSPECIFIED ORGANIC LIQUID MIXTURE

Site History:

From October 1975 to September 2006, Riverside Foundry operated onsite. The foundry manufactured cast iron manways by first packing molds with foundry sand. Scrap iron was placed in a furnace and melted, then it was poured into the molds. After the manways cooled, they were coated, and some were dipped in a black paint dip tank. On 10/2/2015, DTSC received from USEPA a referral to conduct a site screening for the Riverside Foundry. DTSC

completed a site screening on 11/24/2015 and recommended referring this site to the Santa Ana Regional Water Quality Control Board, which is located in Riverside, to oversee this site investigation to verify that there is no potential exposure risk to groundwater or drinking water supplies from this site's previous operations and to grant closure certification for UST and the site. On March 18, 2016 Oldcastle Precast, Inc. requested DTSC provide oversight for further investigation of potentially contaminated soil at the fprmer Riverside Foundry site. DTSC has entered in to a voluntary Cleanup Agreement with the OldCastle Precast, Inc. to investigate and cleanup the Site (May 2016). Sharp Environmental Technologies, Inc. (SET), completed Environmental Investigation Work and has prepared Supplemental Site Investigation and Closure Summary Report (SSI) report presenting the results of an environmental site assessment . The purpose of this assessment was to establish the concentration and distribution of metals and volatile and semivolatile organic compounds (VOCs/SVOCs) in soil and/or soil-gas at the Site originating from the historical operations on-site including metal foundry/recycling activities and evaluate the effectiveness of remedial actions consisting of the completion of remedial excavation activities. The SSI Report is under DTSC review.

Status: NO FURTHER ACTION
Program Type: VOLUNTARY CLEANUP
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33330009

Completed Activities

Title: Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60488998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 10/1/2020
Comments:

Title: Preliminary Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 5/20/1987
Comments: PRELIM ASSESS DONE MFG CAST IRON MANHOLE COVERS. KERSOSENE GASOLINE_AND A BLACK PRIMER USED U/G TANK REMOVED IN 1986, POST SAMPLING INDIC NO PROB. REF TO ENF FOR POSS RECYL AND IMPROP STORAGE. HSEKEEP PROB & STAINED SOIL IN WORK AREA.

Title: FY 18/19 Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60447951
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 9/4/2018
Comments: FY 1819 Estimate: $14,972

Title: Riverside Foundry-Site Screening and Soil Removal
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60403300
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 11/24/2015
Comments: DTSC conducted site screening and referred this site to the Santa Anna RWQCB

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening

Date Completed: 10/30/1986
Comments: SITE SCREENING DONE PA RECOM BASED ON POSSIBLE IMPROPER STORAGE

Title: Annual Cost Estimate FY 16/17
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60417972
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 9/26/2016
Comments: Annual Cost Estimate Letter, dated 9/26/16, sent to RP via email and regular mail.

Title: Discovery
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Discovery
Date Completed: 1/11/1983
Comments: FACILITY IDENTIFIED ID FROM OLD PHONE BOOK SEARCH -1957-69 IRON FOUNDRY

Title: Field Work
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 9/22/2017
Comments: Visited the Site.

Title: Project Management
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Project Management
Date Completed: 6/30/2021
Comments:

Title: Voluntary Cleanup Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60409088
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Standard Voluntary Agreement
Date Completed: 5/20/2016
Comments: VCA fully executed.

Title: Site Characterization Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60410032
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Workplan
Date Completed: 2/1/2017
Comments: Completed and approved.

Title: FY 17/18 Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60434374
Area Name:
Area Link:
Sub Area:
Sub Area Link:

Document Type: Annual Oversight Cost Estimate
Date Completed: 9/6/2017
Comments:

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 10/25/1994
Comments: Site screening/file review indicate NFA for DTSC.

Title: FY 19/20 Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60468975
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 9/10/2019
Comments:

Title: Site Characterization Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60416466
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Other Report
Date Completed: 8/7/2019
Comments:

Title: Investigation Data Submittal and Additional Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60433636
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Other Report
Date Completed: 8/29/2017
Comments: Concurred with comments and e-mail Response

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21 | 2 of 2 | WNW | 0.18 / 938.43 | 922.16 / -19 | **RIVERSIDE OLDCASTLE PRECAST/FOUNDRY (FORMER)**
1326 CITRUS STREET
RIVERSIDE CA 92507 | ENVIROSTOR

Estor/EPA ID: 33330009
Site Code: 401742
Nat Priority List: NO
APN: 247-140-006, 247-140-007, 247-140-014
Census Tract: 6065042209
Site Type: VOLUNTARY CLEANUP
Address Description: 1326 CITRUS STREET
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program: VOLUNTARY CLEANUP PROGRAM
Funding: SITE PROPONENT
Cleanup Status: NO FURTHER ACTION AS OF 8/5/2019
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District:
Past Use that Caused Contam: FOUNDRY
Potential Media Affected: SOIL, SOIL VAPOR
Potential Contamin of Concern:

Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager: AMIT PATHAK
County: RIVERSIDE
Latitude: 34.0081180684068
Longitude: -117.340485748483
Acres: 1.5 ACRES
Supervisor: YOLANDA GARZA

CONTAMINATED SOIL OTHER INORGANIC SOLID WASTE UNSPECIFIED OIL CONTAINING WASTE UNSPECIFIED ORGANIC LIQUID MIXTURE

Site History:

From October 1975 to September 2006, Riverside Foundry operated onsite. The foundry manufactured cast iron manways by first packing molds with foundry sand. Scrap iron was placed in a furnace and melted, then it was poured into the molds. After the manways cooled, they were coated, and some were dipped in a black paint dip tank. On 10/2/2015, DTSC received from USEPA a referral to conduct a site screening for the Riverside Foundry. DTSC completed a site screening on 11/24/2015 and recommended referring this site to the Santa Ana Regional Water Quality Control Board, which is located in Riverside, to oversee this site investigation to verify that there is no potential exposure risk to groundwater or drinking water supplies from this site's previous operations and to grant closure certification for UST and the site. On March 18, 2016 Oldcastle Precast, Inc. requested DTSC provide oversight for further investigation of potentially contaminated soil at the fprmer Riverside Foundry site. DTSC has entered in to a voluntary Cleanup Agreement with the OldCastle Precast, Inc. to investigate and cleanup the Site (May 2016). Sharp Environmental Technologies, Inc. (SET), completed Environmental Investigation Work and has prepared Supplemental Site Investigation and Closure Summary Report (SSI) report presenting the results of an environmental site assessment . The purpose of this assessment was to establish the concentration and distribution of metals and volatile and semivolatile organic compounds (VOCs/SVOCs) in soil and/or soil-gas at the Site originating from the historical operations on-site including metal foundry/recycling activities and evaluate the effectiveness of remedial actions consisting of the completion of remedial excavation activities. The SSI Report is under DTSC review.

Status: NO FURTHER ACTION
Program Type: VOLUNTARY CLEANUP
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33330009

Completed Activities

Title: Riverside Foundry-Site Screening and Soil Removal
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60403300
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 11/24/2015
Comments: DTSC conducted site screening and referred this site to the Santa Anna RWQCB

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 10/25/1994
Comments: Site screening/file review indicate NFA for DTSC.

Title: Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60488998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 10/1/2020
Comments:

Title: Site Characterization Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60410032
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Workplan
Date Completed: 2/1/2017
Comments: Completed and approved.

Title: Discovery
Title Link:
Area Name:
Area Link:

Sub Area:	
Sub Area Link:	
Document Type:	* Discovery
Date Completed:	1/11/1983
Comments:	FACILITY IDENTIFIED ID FROM OLD PHONE BOOK SEARCH -1957-69 IRON FOUNDRY
Title:	Site Characterization Report
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60416466
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Other Report
Date Completed:	8/7/2019
Comments:	
Title:	FY 18/19 Annual Oversight Cost Estimate
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60447951
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Annual Oversight Cost Estimate
Date Completed:	9/4/2018
Comments:	FY 1819 Estimate: $14,972
Title:	Investigation Data Submittal and Additional Workplan
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&doc_id=60433636
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Other Report
Date Completed:	8/29/2017
Comments:	Concurred with comments and e-mail Response
Title:	Preliminary Assessment Report
Title Link:	
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Preliminary Assessment Report
Date Completed:	5/20/1987
Comments:	PRELIM ASSESS DONE MFG CAST IRON MANHOLE COVERS. KERSOSENE GASOLINE_AND A BLACK PRIMER USED U/G TANK REMOVED IN 1986, POST SAMPLING INDIC NO PROB. REF TO ENF FOR POSS RECYL AND IMPROP STORAGE. HSEKEEP PROB & STAINED SOIL IN WORK AREA.
Title:	FY 19/20 Annual Oversight Cost Estimate
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60468975
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Annual Oversight Cost Estimate
Date Completed:	9/10/2019
Comments:	
Title:	Annual Cost Estimate FY 16/17
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60417972
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Annual Oversight Cost Estimate
Date Completed:	9/26/2016
Comments:	Annual Cost Estimate Letter, dated 9/26/16, sent to RP via email and regular mail.
Title:	Field Work

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 9/22/2017
Comments: Visited the Site.

Title: FY 17/18 Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60434374
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 9/6/2017
Comments:

Title: Project Management
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Project Management
Date Completed: 6/30/2021
Comments:

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 10/30/1986
Comments: SITE SCREENING DONE PA RECOM BASED ON POSSIBLE IMPROPER STORAGE

Title: Voluntary Cleanup Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33330009&enforcement_id=60409088
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Standard Voluntary Agreement
Date Completed: 5/20/2016
Comments: VCA fully executed.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
22	1 of 1	ENE	0.18 / 970.27	971.65 / 31	MODULAR STRUCTURES INTERNATIONAL INC 920 CITRUS AVE RIVERSIDE CA 92507	RCRA SQG

EPA Handler ID: CAR000142653
Gen Status Universe: Small Quantity Generator
Contact Name: DEBORAH PARSONS
Contact Address: CITRUS AVE , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext: 909-788-3035
Contact Email:
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type: Private
Receive Date: 20030415
Location Latitude: 34.008426
Location Longitude: -117.341776

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20030415
Handler Name: MODULAR STRUCTURES INTERNATIONAL INC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Implementer

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20030415
Handler Name: MODULAR STRUCTURES INTERNATIONAL INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Code: D008
Waste Code Description: LEAD

Hazardous Waste Code: F003
Waste Code Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	
Name:	MODULAR STRUCTURES INTERNATIONAL	***Street 2:***	
Date Became Current:	19710101	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US
Source Type:	Implementer	***Zip Code:***	
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	
Name:	MODULAR STRUCTURES INTERNATIONAL	***Street 2:***	
Date Became Current:	19710101	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US
Source Type:	Notification	***Zip Code:***	
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	MODULAR STRUCTURES INTERNATIONAL	***Street 2:***	
Date Became Current:	19710101	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US
Source Type:	Implementer	***Zip Code:***	
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	MODULAR STRUCTURES INTERNATIONAL	***Street 2:***	
Date Became Current:	19710101	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US
Source Type:	Notification	***Zip Code:***	

Historical Handler Details

Receive Dt:	20030415
Generator Code Description:	Large Quantity Generator
Handler Name:	MODULAR STRUCTURES INTERNATIONAL INC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
23	1 of 1	SW	0.19 / 1,002.71	919.57 / -21	AMD CONSTRUCTION 1159 IOWA AVENUE, #K RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID:	CAC003151340
Gen Status Universe:	No Report
Contact Name:	QUINN UPTERGROVE
Contact Address:	1159 IOWA AVENUE, #K , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	951-756-5309
Contact Email:	QUINN@AMSROOFINGCONSTRUCTION.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20211206
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20211206
Handler Name:	AMD CONSTRUCTION
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1159 IOWA AVENUE, #K
Name:	AMS CONSTRUCTION	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	833-267-7663	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1159 IOWA AVENUE, #K
Name:	QUINN UPTERGROVE	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-756-5309	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
24	1 of 2	ESE	0.19 / 1,008.44	971.68 / 31	Lineage Logistics 1001 COLUMBIA AVE RIVERSIDE CA 92507	CERS TANK

Site ID:	396629	***Latitude:***	34.002972
Longitude:	-117.332596		

Regulated Programs

EI ID:	10529470
EI Description:	Hazardous Chemical Management
EI ID:	10529470
EI Description:	Chemical Storage Facilities
EI ID:	10529470
EI Description:	Hazardous Waste Generator
EI ID:	10529470
EI Description:	Aboveground Petroleum Storage

Violations

Violation Date: 05/20/2021 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)
Violation Notes:

Returned to compliance on 07/01/2021.

Violation Description:

Failure to complete a review and evaluation of the SPCC Plan at least once every five years, document the completion of the review, and sign a statement as to whether the SPCC Plan will be amended.

Violations

Violation Date: 12/24/2020 ***Violation Source:*** CERS
Violation Program: OSHA ***Violation Division:*** Cal/OSHA
Citation: 01001 - Search Title 8 regulations for 342(A) at https://www.dir.ca.gov/title8/index/T8index.asp
Violation Notes:

Violation Description:

Cal/OSHA Violation

Violations

Violation Date: 12/04/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 01/07/2015. Provide spill kit in the battery area and provide PPE's for the handling of Ethylene.

Violation Description:

Business Plan Program - Release/Leaks/Spills - General

Violations

Violation Date: 12/04/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 01/07/2015. Label all containers

Violation Description:

Business Plan Program - Operations/Maintenance - General

Violations

Violation Date: 12/04/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Notes:

Returned to compliance on 01/07/2015. Provide 704 signage at each entrance gate.

Violation Description:

Business Plan Program - Operations/Maintenance - General

Violations

Violation Date: 01/07/2015
Violation Source: CERS
Violation Program: APSA
Violation Division: Riverside City Fire Department
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Notes:

Returned to compliance on 04/07/2015.

Violation Description:

APSA Program - Administration/Documentation - General

Violations

Violation Date: 03/29/2016
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 11/09/2016.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.

Violations

Violation Date: 06/07/2016
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 11/09/2016.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 05/20/2021
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/01/2021. 104A - NFPA 704 sign(s) properly posted. [RMC 16.32.020; CFC, Section 5003.5] - No NFPA 704 is posted. Provide the required NFPA 704 signage in the following locations: replace NFPA 704 sign outside the anhydrous ammonia room.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 10/22/2018
Violation Source: CERS
Violation Program: HMRRP
Violation Division: Riverside City Fire Department

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 11/08/2018. Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date. Missing Plan submittal.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 01/23/2020 ***Violation Source:*** CERS
Violation Program: CalARP ***Violation Division:*** Riverside County Department of Env Health
Citation: 19 CCR 4.5 2745.10.5(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2745.10.5(b)
Violation Notes:

Returned to compliance on 01/24/2020.

Violation Description:

Failure to correct and submit the emergency contact information in the Risk Management Plan required under Section 2740.1(d)(6) within one month of any change.

Violations

Violation Date: 10/08/2020 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 10/29/2020.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 04/18/2011 ***Violation Source:*** CERS
Violation Program: OSHA ***Violation Division:*** Cal/OSHA
Citation: 02001 - Search Title 8 regulations for 3650 L at https://www.dir.ca.gov/title8/index/T8index.asp
Violation Notes:

Violation Description:

Cal/OSHA Violation

Violations

Violation Date: 10/22/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 12/04/2014.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.

Violations

Violation Date: 10/22/2018 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.67 25270.6(a)(1), 25270.6(a)(2) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.6(a)(1), 25270.6(a)(2)
Violation Notes:

Returned to compliance on 11/02/2018. Failed to submit a tank facility statement or update/certify Business Plan annually.

Violation Description:

Failure to submit a tank facility statement on or before January 1 annually unless a current Business Plan has been submitted.

Violations

Violation Date: 09/21/2016 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 11/09/2016.

Violation Description:

Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violations

Violation Date: 12/04/2014 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 01/07/2015.

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Enforcements

Enf Action Date: 09/21/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $500.00.

Enf Action Date: 06/07/2016 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $200.00. Administrative Citation.

Enf Action Date: 10/08/2020 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Riverside City Fire Department

Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Administrative Citation.

Enf Action Date: 03/29/2016
Enf Action Program: HMRRP
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Source: CERS
Enf Action Division: Riverside City Fire Department
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Fines/Penalties Assessed: $100.00. Administrative citation.

Evaluations

Eval Date: 10/07/2020
Violations Found: Yes
Eval General Type: Occupational Safety and Health Administration Inspection
Eval Type: Cal/OSHA Inspection
Eval Division: Cal/OSHA
Eval Program: OSHA
Eval Source: CERS
Eval Notes:

Eval Date: 10/22/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 12/04/2014
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/14/2016
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 01/07/2015
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Eval Date: 01/23/2020
Violations Found: No

Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 12/04/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 10/22/2014
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 10/22/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Eval Date: 11/04/2010
Violations Found: Yes
Eval General Type: Occupational Safety and Health Administration Inspection
Eval Type: Cal/OSHA Inspection
Eval Division: Cal/OSHA
Eval Program: OSHA
Eval Source: CERS
Eval Notes:

Eval Date: 07/01/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Inspector D. Young All violations from routine inspection on 5/20/21 have been RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 09/21/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 01/23/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

Eval Date: 08/24/2017
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 03/12/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

RMP review; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 10/08/2020
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 03/29/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 08/19/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

final approval, web posting, mailing; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 10/08/2020
Violations Found: Yes
Eval General Type: Occupational Safety and Health Administration Inspection
Eval Type: Cal/OSHA Inspection
Eval Division: Cal/OSHA

Eval Program: OSHA
Eval Source: CERS
Eval Notes:

Eval Date: 07/01/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young All violations from routine inspection on 5/20/21 are RTC; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/07/2016
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 05/20/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/19/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: CalARP
Eval Source: CERS
Eval Notes:

RMP review; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 05/20/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:

Address: 1001 Columbia Ave
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Operator
Entity Name: Lineage Logistics
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 320-5700

Affil Type Desc: Property Owner
Entity Name: American Realty Capital Properties
Entity Title:
Address: 2325 E. Camelback Rd Suite 1100
City: Phoenix
State: AZ
Country: United States
Zip Code: 85016
Phone: (602) 778-6214

Affil Type Desc: Identification Signer
Entity Name: James Martin
Entity Title: GENERAL MANAGER
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Environmental Contact
Entity Name: John Dittrick
Entity Title:
Address: 2356 Fleetwood Drive
City: Riverside
State: CA
Country:
Zip Code: 92509
Phone:

Affil Type Desc: Parent Corporation
Entity Name: Lineage Logistics
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Lineage Logistics ICM LLC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Title:
Address: 17911 Von Karman Ave Suit 400
City: Irvine
State: CA
Country: United States
Zip Code: 92614
Phone: (949) 247-5300

Affil Type Desc: Document Preparer
Entity Name: Omar Valencia
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Coordinates

Env Int Type Code: APSA
Program ID: 10529470
Latitude: 34.002970
Longitude: -117.332600
Coord Name:
Ref Point Type Desc: Center of a facility or station.

24	2 of 2	ESE	0.19 / 1,008.44	971.68 / 31	LINEAGE LOGISTICS ICM LLC 1001 COLUMBIA AVE RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAL000387150
Gen Status Universe: No Report
Contact Name: GLEN BEHNKE
Contact Address: 1001 COLUMBIA AVE , 1001 COLUMBIA AVE , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 909-821-2566
Contact Email: GBEHNKE@WAL-MART.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20130705
Location Latitude: 34.003035
Location Longitude: -117.332681

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20130705
Handler Name: LINEAGE LOGISTICS ICM LLC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: LINEAGE LOGISTICS ICM LLC
Date Became Current:
Date Ended Current:
Phone: 909-433-3110
Source Type: Implementer
Street No:
Street 1: 17911 VON KARMAN, SUITE 400
Street 2:
City: IRVINE
State: CA
Country:
Zip Code: 92614-0000

Owner/Operator Ind: Current Operator
Type: Other
Name: GLEN BEHNKE
Date Became Current:
Date Ended Current:
Phone: 909-821-2566
Source Type: Implementer
Street No:
Street 1: 1001 COLUMBIA AVE
Street 2: 1001 COLUMBIA AVE
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
25	1 of 3	NW	0.19 / 1,027.25	923.01 / -18	RIVERSIDE FOUNDRY 1326 CITRUS AVENUE RIVERSIDE CA 925071625	CERCLIS

Site ID: 0905893
Site EPA ID: CAD983572595
Site Street Address 2:
Site County Name: RIVERSIDE
Site FIPS Code: 06065
Region Code: 09
Site SMSA No.:
Site Prim. Latitude:
Site Prim. Longitude:
Lat Long Source:
RNON NPL Status Desc: PA Start Needed
RNPL Status Code: N
NPL Status: Not on the NPL
RFED Facility Code: N
RFED Facility Desc: Not a Federal Facility
USGS Hydro Unit No.:
Site Cong. Dist. Code:
ROT Desc:
FR NPL Update No.:
RFRA Code:

CERCLIS Site Contact Name(s)

Person ID: 13004003.00
First Name: Carl
Last Name: Brickner
Phone No.:
Email:

CERCLIS Site Contact Name(s)

Person ID: 13003854.00
First Name: Leslie
Last Name: Ramirez
Phone No.: 4159723978
Email:

CERCLIS Site Contact Name(s)

Person ID: 13003858.00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

First Name: Sharon
Last Name: Murray
Phone No.: 4159724250
Email:

CERCLIS Assess History

OU ID: 00
Act Code ID: 001
RAT Code: DS
RAT Short Name: DISCVRY
RAT Name: DISCOVERY
RAT Hist. Only Flag:
RAT NSI Indicator: B
RAT Level: 1
RAT DEF OU: 00
RFBS Code:
SPA Code: 13
RAT Def: The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.
Site Desc:
Site Alias:

RALT Short Name: EPA Fund
Act Start Date:
Act Complete Date: 6/30/2001 00:00:00
AGT Order No.: 10
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:

CERCLIS Assess History

OU ID: 00
Act Code ID: 001
RAT Code: PA
RAT Short Name: PA
RAT Name: PRELIMINARY ASSESSMENT
RAT Hist. Only Flag:
RAT NSI Indicator: B
RAT Level: 1
RAT DEF OU: 00
RFBS Code: P
SPA Code: 13
RAT Def: Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.
Site Desc:
Site Alias:

RALT Short Name: EPA Fund
Act Start Date: 4/8/2002 00:00:00
Act Complete Date:
AGT Order No.: 130
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:

CERCLIS Assess History

OU ID: 00
Act Code ID:
RAT Code:
RAT Short Name:
RAT Name:
RAT Hist. Only Flag:
RAT NSI Indicator:
RAT Level:
RAT DEF OU:
RFBS Code:
SPA Code:
RAT Def:
Site Desc: WESTON - 4/02
BACKLOG 2013
.
Site Alias: No alias data available

RALT Short Name:
Act Start Date:
Act Complete Date:
AGT Order No.: 0
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:

25	2 of 3	NW	0.19 / 1,027.25	923.01 / -18	RIVERSIDE FOUNDRY 1326 CITRUS RIVERSIDE CA 92507	HHSS

County: Riverside

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001fa24.pdf

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25 | 3 of 3 | NW | 0.19 / 1,027.25 | 923.01 / -18 | RIVERSIDE FOUNDRY, 1326 CITRUS, RIVERSIDE CA | HIST TANK

Owner Name: THOMAS D. LYNCH
Owner Street: 1326 CITRUSS
Owner City: RIVERSIDE
Owner State: CA
Owner Zip: 92507
No of Containers: 1
County: RIVERSIDE
Facility State: CA
Facility Zip: 92507

---

26 | 1 of 2 | NW | 0.19 / 1,027.88 | 923.01 / -18 | RIVERSIDE FOUNDRY, 1326 CITRUS AVENUE, RIVERSIDE CA 92507 | SEMS ARCHIVE

Site ID: 0905893
EPA ID: CAD983572595
Superfund Alt Agmt: No
Federal Facility: No
FF Docket: No
FIPS Code: 06065
Cong District:
Region: 09
County: RIVERSIDE
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Action Information

Operable Units: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Actual: 06/30/2001
Finish Actual: 06/30/2001
Qual:
Curr Action Lead: EPA Perf

Operable Units: 00
Action Code: PA
Action Name: PA
SEQ: 2
Start Actual: 06/30/2001
Finish Actual: 09/30/2015
Qual: N
Curr Action Lead: EPA Perf

Operable Units: 00
Action Code: HX
Action Name: PRE-CERC
SEQ: 1
Start Actual: 06/30/2001
Finish Actual: 06/30/2001
Qual:
Curr Action Lead: St Perf

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26 | 2 of 2 | NW | 0.19 / 1,027.88 | 923.01 / -18 | RIVERSIDE FOUNDRY, 1326 CITRUS AVENUE, RIVERSIDE CA 92507 | CALSITES

ID No: 33330009
Status Date: 10/25/1994
NPL:
Tier:
Fund:
Access :
Access Code: NOT REPORTED
Cortese:
Hrscore:
Hrsdate:
Groundwater Contam:
GW Code: NOT REPORTED
No Sources: 0
RWQCB Name: SANTA ANA
Branch Name: SOUTHERN CA. - B
Staff:
Senior: MMONROY
Assembly:
Senate:
Region: 4
Region Name: LONG BEACH
County Co: 33
Facility County: RIVERSIDE
Lat Deg: 0
Lat Min: 0
Lat Sec: 0
Lat Dir:
Long Deg: 0
Long Min: 0
Long Sec: 0
Long Dir:
LImethod:
LIdesc:
Status Name: PROPERTY/SITE REFERRED TO ANOTHER AGENCY

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Type Name: N/A
Lead Name: N/A
SIC Name: MANU - PRIMARY METAL INDUSTRIES
Filename:
Comments:

FACILITY IDENTIFIED ID FROM OLD PHONE BOOK SEARCH -1957-69 IRON FOUNDRY FACILITY DRIVE-BY ACTIVE WORKING AREA IS NOT PAVED.POSSIBL HOUSEKEEPING PROB. AREA FOUND W/DRUMS, SCRAP METAL,STAINED SOIL-DUMP LIKE AREA FINAL STRATEGY SITE REFERRED: TO HWMB/ENF SITE SCREENING DONE PA RECOM BASED ON POSSIBLE IMPROPER STORAGE PRELIM ASSESS DONE MFG CAST IRON MANHOLE COVERS. KERSOSENE GASOLINE_AND A BLACK PRIMER USED U/G TANK REMOVED IN 1986, POST SAMPLING INDIC NO PROB. REF TO ENF FOR POSS RECYL AND IMPROP STORAGE. HSEKEEP PROB & STAINED SOIL IN WORK AREA. Site screening/file review indicate NFA for DTSC.

Background:

27	1 of 1	SSW	0.19 / 1,029.24	931.57 / -9	CICO ELECTRICAL CONTRACTORS INC 1215 COLUMBIA AVE STE C4 RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAL000436608
Gen Status Universe: No Report
Contact Name: CHRIS DIAZ
Contact Address: 1215 COLUMBIA AVE STE C4 , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 909-219-1645
Contact Email: CHRIS.DIAZ@CICOELE.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20180530
Location Latitude: 34.001168
Location Longitude: -117.33809

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20180530
Handler Name: CICO ELECTRICAL CONTRACTORS INC
Source Type: Implementer

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	365 WHIPPORWILL DR
Name:	CICO ELECTRICAL CONTRACTORS INC	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-213-2229	**Country:**	
Source Type:	Implementer	**Zip Code:**	92507
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	1215 COLUMBIA AVE STE C4
Name:	CHRIS DIAZ	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	909-219-1645	**Country:**	
Source Type:	Implementer	**Zip Code:**	92507

28	1 of 1	SW	0.20 / 1,051.79	926.63 / -14	**PARAMOUNT LITHOGRAPH** **1271 COLUMBIA AVE** **RIVERSIDE CA 92507-0000**	**RCRA NON GEN**

EPA Handler ID: CAL000089639
Gen Status Universe: No Report
Contact Name: THOMAS PICARELLI
Contact Address: P.O. BOX 5166 , , RIVERSIDE , CA, 92517-5166 ,
Contact Phone No and Ext: 951-684-2153
Contact Email: PRINT@PLITHO.NET
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 19930506
Location Latitude: 34.001227
Location Longitude: -117.339239

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Sequence No: 1
Receive Date: 19930506
Handler Name: PARAMOUNT LITHOGRAPH
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	PO BOX 5166
Name:	THOMAS PICARELLI	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-684-2153	**Country:**	
Source Type:	Implementer	**Zip Code:**	92517-5166

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	P.O. BOX 5166
Name:	THOMAS PICARELLI	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-684-2153	**Country:**	
Source Type:	Implementer	**Zip Code:**	92517-5166

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29 **1 of 3** **WSW** **0.21 / 1,125.03** **915.77 / -25** **K M C WHEEL**
1455 COLUMBIA AVE
RIVERSIDE CA 92507
RCRA SQG

EPA Handler ID: CAD981631518
Gen Status Universe: Small Quantity Generator
Contact Name: KEVIN FITZGERALD
Contact Address: 1455 COLUMBIA AVE , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext: 909-784-4562
Contact Email:
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type: Private
Receive Date: 20000504
Location Latitude: 34.00117
Location Longitude: -117.341181

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No

Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20000504
Handler Name: K M C WHEEL
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: D039
Waste Code Description: TETRACHLOROETHYLENE

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Private
Name: NOT REQUIRED
Date Became Current:
Date Ended Current:
Phone: 415-555-1212
Source Type: Notification
Street No:
Street 1: NOT REQUIRED
Street 2:
City: NOT REQUIRED
State: ME
Country:
Zip Code: 99999

---

29 | 2 of 3 | WSW | 0.21 / 1,125.03 | 915.77 / -25 | **KMC WHEEL CO INC**
1455 COLUMBIA AVE
RIVERSIDE CA 92507 | EMISSIONS

1997 Criteria Data

Facility ID: 104671
Facility SIC Code: 3429
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 5.255
ROGT: .4912267
COT: .813
NOXT: 1.062
SOXT: .004
PMT: 4.975
PM10T: .980716

1997 Toxic Data

Facility ID: 104671
Facility SIC Code: 3429
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

1998 Criteria Data

Facility ID: 104671
Facility SIC Code: 3429
CO: 33
Air Basin: SC
District: SC
CERR Code:
TOGT: 6.485
ROGT: .6046414
COT: .813
NOXT: 1.062

COID:	RIV	**SOXT:**	.004
DISN:	SOUTH COAST AQMD	**PMT:**	4.975
CHAPIS:		**PM10T:**	.980716

1998 Toxic Data

Facility ID:	104671	**COID:**	RIV
Facility SIC Code:	3429	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

1999 Criteria Data

Facility ID:	104671	**CERR Code:**	
Facility SIC Code:	3429	**TOGT:**	5.255
CO:	33	**ROGT:**	.4912267
Air Basin:	SC	**COT:**	.813
District:	SC	**NOXT:**	1.062
COID:	RIV	**SOXT:**	.004
DISN:	SOUTH COAST AQMD	**PMT:**	4.975
CHAPIS:		**PM10T:**	.980716

1999 Toxic Data

Facility ID:	104671	**COID:**	RIV
Facility SIC Code:	3429	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2000 Criteria Data

Facility ID:	104671	**CERR Code:**	
Facility SIC Code:	3429	**TOGT:**	5.255
CO:	33	**ROGT:**	.49
Air Basin:	SC	**COT:**	.813
District:	SC	**NOXT:**	1.062
COID:	RIV	**SOXT:**	.004
DISN:	SOUTH COAST AQMD	**PMT:**	4.975
CHAPIS:		**PM10T:**	.99

2000 Toxic Data

Facility ID:	104671	**COID:**	RIV
Facility SIC Code:	3429	**DISN:**	SOUTH COAST AQMD
CO:	33	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2001 Criteria Data

Facility ID:	104671	***CERR Code:***	
Facility SIC Code:	3429	***TOGT:***	2.74
CO:	33	***ROGT:***	.25
Air Basin:	SC	***COT:***	1.27
District:	SC	***NOXT:***	4.73
COID:	RIV	***SOXT:***	.04
DISN:	SOUTH COAST AQMD	***PMT:***	9.85
CHAPIS:		***PM10T:***	1.94

2001 Toxic Data

Facility ID:	104671	***COID:***	RIV
Facility SIC Code:	3429	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2002 Criteria Data

Facility ID:	104671	***CERR Code:***	
Facility SIC Code:	3363	***TOGT:***	.5
CO:	33	***ROGT:***	.2111
Air Basin:	SC	***COT:***	1.06
District:	SC	***NOXT:***	3.92
COID:	RIV	***SOXT:***	.025
DISN:	SOUTH COAST AQMD	***PMT:***	6.236
CHAPIS:		***PM10T:***	5.2143

2002 Toxic Data

Facility ID:	104671	***COID:***	RIV
Facility SIC Code:	3363	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	
District:	SC		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2003 Criteria Data

Facility ID:	104671	***CERR Code:***	
Facility SIC Code:	3363	***TOGT:***	.501
CO:	33	***ROGT:***	.21
Air Basin:	SC	***COT:***	1.06
District:	SC	***NOXT:***	3.92
COID:	RIV	***SOXT:***	.025
DISN:	SOUTH COAST AQMD	***PMT:***	6.236
CHAPIS:		***PM10T:***	5.22

2003 Toxic Data

Facility ID:	104671	***COID:***	RIV
Facility SIC Code:	3363	***DISN:***	SOUTH COAST AQMD
CO:	33	***CHAPIS:***	
Air Basin:	SC	***CERR Code:***	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
29	3 of 3	WSW	0.21 / 1,125.03	915.77 / -25	RIVERSIDE GEN MFG CO INC 1455 COLUMBIA AVENUE RIVERSIDE CA 92507	EMISSIONS

1987 Criteria Data

Facility ID: 21407
Facility SIC Code: 3531
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 3.2
ROGT: 3.0976
COT:
NOXT:
SOXT:
PMT:
PM10T:

1987 Toxic Data

Facility ID: 21407
Facility SIC Code: 3531
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

1990 Criteria Data

Facility ID: 21407
Facility SIC Code: 35
CO: 33
Air Basin: SC
District: SC
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:
TOGT: 2
ROGT: 1.936
COT: .2
NOXT: .3
SOXT:
PMT: 0
PM10T: 0

1990 Toxic Data

Facility ID: 21407
Facility SIC Code: 35
CO: 33
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: RIV
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
30	1 of 1	WNW	0.22 / 1,154.24	918.35 / -23	JOHNSON LIFT HYSTER 1360 CITRUS AVE RIVERSIDE CA 92502	RCRA SQG

EPA Handler ID: CA0000133835
Gen Status Universe: Small Quantity Generator

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Contact Name:	DAVID FLEMING
Contact Address:	PO BOX 351 , , RIVERSIDE , CA, 92502 , US
Contact Phone No and Ext:	909-686-4560
Contact Email:	
Contact Country:	US
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	Private
Receive Date:	19940211
Location Latitude:	34.008426
Location Longitude:	-117.341776

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19940211
Handler Name:	JOHNSON LIFT HYSTER
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator
Source Type:	Notification

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	PO BOX 351
Name:	JOHNSON MACHINERY CO	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	909-686-4560	**Country:**	
Source Type:	Notification	**Zip Code:**	92502

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
31	1 of 1	S	0.22 / 1,161.62	936.61 / -4	WW GRAINGER 441 1151 COLUMBIA AVE RIVERSIDE CA 92507-2113	RCRA NON GEN

EPA Handler ID:	CAL000353751
Gen Status Universe:	No Report
Contact Name:	ERIC POWLEY
Contact Address:	100 GRAINGER PARKWAY , , LAKE FOREST , IL, 60045-5201 ,
Contact Phone No and Ext:	847-535-0660

Contact Email:	ERIC.POWLEY@GRAINGER.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20100622
Location Latitude:	34.001159
Location Longitude:	-117.336951

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20100622
Handler Name:	WW GRAINGER 441
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	100 GRAINGER PARKWAY
Name:	ERIC POWLEY	**Street 2:**	
Date Became Current:		**City:**	LAKE FOREST
Date Ended Current:		**State:**	IL
Phone:	847-535-0660	**Country:**	
Source Type:	Implementer	**Zip Code:**	60045-5201
Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	100 GRAINGER PKWY
Name:	WW GRAINGER INC	**Street 2:**	
Date Became Current:		**City:**	LAKE FOREST
Date Ended Current:		**State:**	IL
Phone:	847-535-0661	**Country:**	
Source Type:	Implementer	**Zip Code:**	60045

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
32	1 of 1	WNW	0.22 / 1,178.20	918.37 / -23	SPARKLETTS DRINKING WATER CORP 1363 CITRUS AVE RIVERSIDE CA	UST SWEEPS

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

C C:	A33-000-64141	**D Filename:**	SITE16A
BOE:	44-018455	**Page No:**	99
Comp:	64141	**County:**	RIVERSIDE
Status:	ACTIVE	**State :**	CA
No of Tanks:	2	**Zip:**	92507
Jurisdict:	RIVERSIDE COUNTY	**Latitude:**	0
Agency:	ENVIRONMENTAL HEALTH - U.S.T.	**Longitude:**	0
Phone:		**Georesult:**	N

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	000991	**Stg:**	P
SWRCB No:	33-000-064141-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	11-19-92	**Content:**	DIESEL
Capac:	12000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000002	**S Contain:**	
O Tank ID:	000991	**Stg:**	P
SWRCB No:	33-000-064141-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	11-19-92	**Content:**	DIESEL
Capac:	12000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
33	1 of 3	NW	0.22 / 1,186.76	927.34 / -14	FOREMOST DAIRIES INC 689 IOWA AVENUE RIVERSIDE CA 92507	HHSS

County: Riverside
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f69a.pdf

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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
33	2 of 3	NW	0.22 / 1,186.76	927.34 / -14	FOREMOST DAIRIES INC. 689 IOWA AVENUE RIVERSIDE CA	HIST TANK

Owner Name:	FOREMOST DAIRIES INC.	**No of Containers:**	2
Owner Street:	689 IOWA AVENUE	**County:**	RIVERSIDE
Owner City:	RIVERSIDE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	92507
Owner Zip:	92507		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
33	3 of 3	NW	0.22 / 1,186.76	927.34 / -14	WESTERN LANDSCAPE 689 IOWA AVE RIVERSIDE CA	UST SWEEPS

C C:	A33-000-5778	**D Filename:**	SITE16A
BOE:	44-017899	**Page No:**	108
Comp:	5778	**County:**	RIVERSIDE
Status:	ACTIVE	**State :**	CA
No of Tanks:	2	**Zip:**	92507
Jurisdict:	RIVERSIDE COUNTY	**Latitude:**	34.008702
Agency:	ENVIRONMENTAL HEALTH - U.S.T.	**Longitude:**	-117.33991
Phone:		**Georesult:**	S5HPNTSCZA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tank Details

Tank ID:	000003	***S Contain:***	
O Tank ID:	001514	***Stg:***	P
SWRCB No:	33-000-005778-000003	***Storage :***	
Removed:		***Storag Type:***	PRODUCT
Installed:		***P Contain:***	
A Date:	05-08-90	***Content:***	DIESEL
Capac:	10000	***ONA:***	
Tank Use:	M.V. FUEL	***D File Name:***	TANK16A

Tank Details

Tank ID:	000004	***S Contain:***	
O Tank ID:	001514	***Stg:***	P
SWRCB No:	33-000-005778-000004	***Storage :***	
Removed:		***Storag Type:***	PRODUCT
Installed:		***P Contain:***	
A Date:	05-08-90	***Content:***	REG UNLEADED
Capac:	10000	***ONA:***	
Tank Use:	M.V. FUEL	***D File Name:***	TANK16A

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
34	1 of 3	NW	0.23 / 1,191.13	927.34 / -14	***Environmental Care*** ***687 Iowa Ave*** ***Riverside CA***	***LOP*** ***RIVERSIDE***

Site ID:	9914883	***Closed Code:***	Y
Status Code:	9	***Closed Desc:***	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	***Employee:***	Boltinghous-LOP
Case Type Code:	S		
Case Type Desc:	SOIL ONLY IS IMPACTED		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
34	2 of 3	NW	0.23 / 1,191.13	927.34 / -14	***ENVIRONMENTAL CARE*** ***687 IOWA AVE*** ***RIVERSIDE CA 92507***	***LUST***

Global ID:	T0606500568	***County:***	RIVERSIDE
Status:	COMPLETED - CASE CLOSED	***Latitude:***	34.0088646300315
Status Date:	1999-01-27 00:00:00	***Longitude:***	-117.340923387132
Case Type:	LUST CLEANUP SITE		
Date Source:	LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download		

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No:	083303363T	***Potential COC:***	Gasoline
Local Case No:	9914883	***How Discovered:***	Tank Closure
Begin Date:	12/2/1998	***Stop Method:***	Close and Remove Tank
Lead Agency:	RIVERSIDE COUNTY LOP	***Stop Description:***	
Local Agency:	RIVERSIDE COUNTY LOP	***Case Worker:***	SCB
CUF Case:	NO	***Military DoD Site:***	No
CalEnvScreen Score:	91-95%	***Leak Reported Dt:***	1999-01-26 00:00:00
EPA Region:	9	***No Further Action Dt:***	1999-01-27 00:00:00
Qty Rlsd Gallons:			
Potential Media of Concern:	Soil		
How Discovered Description:			
Calwater Watershed Name:	Santa Ana River - Middle Santa Ana River - Riverside (801.27)		
DWR GW Subbasin Name:	Upper Santa Ana Valley - Riverside-Arlington (8-002.03)		
Disadvantaged Community:			
Coordinate Source:	Google Map Move		
Discharge Cause:	Unknown		
Discharge Source:	Other		
File Location:	Local Agency Warehouse		

Site History:

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 2/23/2001
Action: Closure/No Further Action Letter - #Riv Co Closure

Action Type: ENFORCEMENT
Date : 2/22/2001
Action: File review - #RCDEH Upload Site File 8/21/2015

Action Type: ENFORCEMENT
Date : 1/27/1999
Action: Closure/No Further Action Letter

Action Type: Other
Date : 1/26/1999
Action: Leak Discovery

Action Type: Other
Date : 1/26/1999
Action: Leak Reported

Action Type: Other
Date : 12/2/1998
Action: Leak Stopped

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email: sbolting@rivco.org
Phone No: 9519558980

Contact Type: Regional Board Caseworker
Contact Name: MIGUEL OVIEDO
City: RIVERSIDE
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 Main Street, Suite 500
Email: miguel.oviedo@waterboards.ca.gov
Phone No: 9517823238

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 1/27/1999

Status: Open - Site Assessment
Status Date: 1/26/1999

Status: Open - Case Begin Date
Status Date: 12/2/1998

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: ENVIRONMENTAL CARE
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig:
CUF Amount Paid:
File Location: LOCAL AGENCY WAREHOUSE
Potential COC: GASOLINE
Facility Type:
Composting Method:
Address: 687 IOWA AVE
City: RIVERSIDE
Zip: 92507
County: RIVERSIDE
CUF Claim:

Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500568
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 1/27/1999
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500568&tabname=regulatoryhistory
Potential Media of Concern: SOIL
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management: NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use: UNKNOWN
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 9914883
CASEWORKER: SHARON BOLTINGHOUSE
SANTA ANA RWQCB (REGION 8) - CASE #: 083303363T
CASEWORKER: MIGUEL OVIEDO
Gndwater Monitoring Freque:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed
Date : 1/27/1999

Status: Open - Site Assessment
Date : 1/26/1999

Status: Open - Case Begin Date
Date : 12/2/1998

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 2/23/2001
Received Issue Date: 2/23/2001
Action: Closure/No Further Action Letter - #Riv Co Closure
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500568&enforcement_id=6006342&temptable=ENFORCEMENT
Title Description Comments:

Riv Co Site Closure

Action Type: Other Regulatory Actions
Action Date: 2/22/2001
Received Issue Date: 2/22/2001
Action: File review - #RCDEH Upload Site File 8/21/2015
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500568&enforcement_id=6051217&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 8/21/2015

Action Type: Other Regulatory Actions
Action Date: 1/27/1999
Received Issue Date: 1/27/1999
Action: Closure/No Further Action Letter
Doc Link:
Title Description Comments:

LETTER WAS ISSUED BY THE CRDEH. ALSO, THE URR WAS DATED 1/26/99.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Type: Leak Action
Action Date: 1/26/1999
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 1/26/1999
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 12/2/1998
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 2/23/2001
Type: CLOSURE/NO FURTHER ACTION LETTER
Title: RIV CO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500568&enforcement_id=6006342
Size :
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 2/22/2001
Type: FILE REVIEW
Title: RCDEH UPLOAD SITE FILE 8/21/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500568&enforcement_id=6051217
Size :
Submitted By: LINDA SHURLOW (REGULATOR)
Submitted:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
34	3 of 3	NW	0.23 / 1,191.13	927.34 / -14	ATHENS SERVICE 687 IOWA AVE RIVERSIDE CA 92507-0000	RCRA NON GEN

EPA Handler ID: CAL000223045
Gen Status Universe: No Report
Contact Name: DAVID OEFFLING
Contact Address: 5355 VINCENT AVE , , IRWINDALE , CA, 91706-0000 ,
Contact Phone No and Ext: 626-336-3636
Contact Email: DOEFFLING@ATHENSSERVICES.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20010521
Location Latitude: 34.01046
Location Longitude: -117.339903

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No

Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20010521
Handler Name:	ATHENS SERVICE
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	14048 VALLEY BLVD
Name:	ARAKELIAN ENTERPRISES INC	**Street 2:**	
Date Became Current:		**City:**	CITY OF INDUSTRY
Date Ended Current:		**State:**	CA
Phone:	626-336-3636	**Country:**	
Source Type:	Implementer	**Zip Code:**	91746-0000

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	5355 VINCENT AVE
Name:	DAVID OEFFLING	**Street 2:**	
Date Became Current:		**City:**	IRWINDALE
Date Ended Current:		**State:**	CA
Phone:	626-336-3636	**Country:**	
Source Type:	Implementer	**Zip Code:**	91706-0000

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
35	1 of 2	W	0.23 / 1,204.24	906.93 / -34	**Reliable Wholesale Lumber** **1450 CITRUS ST** **RIVERSIDE CA 92507**	CERS TANK

Site ID:	180460	**Latitude:**	34.006306
Longitude:	-117.343048		

Regulated Programs

EI ID:	10531576
EI Description:	Chemical Storage Facilities
EI ID:	10531576
EI Description:	Aboveground Petroleum Storage

Violations

Violation Date:	06/09/2021	**Violation Source:**	CERS
Violation Program:	APSA	**Violation Division:**	Riverside City Fire Department
Citation:	HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)		
Violation Notes:			

Returned to compliance on 07/12/2021.

Violation Description:

Failure to adequately and accurately describe in the SPCC Plan the physical layout of the facility.

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/12/2021. 104C - Hazmat storage area(s) properly posted. [RMC 16.32.020; CFC, Section 5003.6] - The hazmat storage area(s) signage was obscured or removed. Replace all required signage on your 10,000 gallon diesel fuel tank.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Notes:

Returned to compliance on 07/12/2021.

Violation Description:

Failure to include in the SPCC Plan an adequate facility diagram, or no facility diagram included.

The facility diagram is not required on a Tier I qualified facility SPCC Plan.

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: Un-Specified
Violation Notes:

Returned to compliance on 07/12/2021. 105A - Materials stored to minimize the possibility of release. [RMC 16.32.020; CFC, Section 5004.2] - No spill control and secondary containment was observed per CFC requirement. Provide a spill kit in building #2 for 110 gal of 15W40 oil.

Violation Description:

Business Plan Program - Operations/Maintenance - General Local Ordinance

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: APSA ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)
Violation Notes:

Returned to compliance on 07/12/2021.

Violation Description:

Failure to amend the SPCC Plan within 6 months:

1. When the facility has had a change in design, construction, operation, or maintenance which affects the facility's discharge potential. AND/OR
2. To include more effective proven technology at the time of the 5-year SPCC Plan review and evaluation.

Violations

Violation Date: 01/28/2015 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Notes:

Returned to compliance on 02/20/2015.

Violation Description:

Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 07/12/2021. The chemical inventory has not been submitted accurately. Submit the chemical inventory in CERS. Include the changes of the following chemicals in CERS: add NOS - 280 cu ft; 15W40 oil - 110 gal

Violation Description:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Notes:

Returned to compliance on 07/12/2021. The business plan update within 30 days has not been completed as required.

Violation Description:

Failure to electronically update business plan within 30 days of any one of the following events:
A 100 percent or more increase in the quantity of a previously disclosed material.
Any handling of a previously undisclosed hazardous materials at or above reportable quantities.
A change of business address, business ownership, or business name.
A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violations

Violation Date: 06/09/2021 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Riverside City Fire Department
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 07/12/2021. Site map submitted has missing components. Update map and upload into CERS and add the following items: compressed gas and 15W40 oil

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Evaluations

Eval Date: 07/12/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 6/9/2021 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/08/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Eval Date: 07/12/2021
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Reinspection - D. Young. All violations from 6/9/2021 routine inspection have been abated.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/21/2015
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/09/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: APSA
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/08/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval Notes:

Eval Date: 01/28/2015
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 06/09/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside City Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Inspector D. Young; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Parent Corporation
Entity Name: Reliable Wholesale Lumber
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Reliable Wholesale Lumber
Entity Title:
Address: 1450 Citrus St
City: Riverside
State: CA
Country: United States
Zip Code: 92507
Phone: (951) 300-2500

Affil Type Desc: Identification Signer
Entity Name: Sokha Hour
Entity Title: Admin Assistant
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Document Preparer
Entity Name: Sokha Hour
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: CUPA District

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Environmental Contact
Entity Name: Reliable Wholesale Lumber
Entity Title:
Address: 1450 Citrus St
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1450 Citrus St
City: Riverside
State: CA
Country:
Zip Code: 92507
Phone:

Affil Type Desc: Operator
Entity Name: Reliable Wholesale Lumber
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 849-2211

Coordinates

Env Int Type Code: APSA
Program ID: 10531576
Latitude: 34.006310
Longitude: -117.343050
Coord Name:
Ref Point Type Desc: Center of a facility or station.

35	2 of 2	W	0.23 / 1,204.24	906.93 / -34	RELIABLE WHOLESALE LUMBER INC 1450 CITRUS ST RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID: CAP000220285
Gen Status Universe: No Report
Contact Name: REMINGTON RICHARDS
Contact Address: 1450 CITRUS ST , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext: 951-300-2514
Contact Email:
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type: Private
Receive Date: 20111005
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20110627
Handler Name:	RELIABLE WHOLESALE LUMBER INC
Source Type:	Temporary
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator

Waste Code Details

Hazardous Waste Code:	331
Waste Code Description:	Off-specification, aged, or surplus organics
Hazardous Waste Code:	D001
Waste Code Description:	IGNITABLE WASTE

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20111005
Handler Name:	RELIABLE WHOLESALE LUMBER INC
Source Type:	Notification
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	1450 CITRUS ST
Name:	RELIABLE WHOLESALE LUMBER INC	***Street 2:***	
Date Became Current:	19820101	***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-300-2514	***Country:***	US
Source Type:	Temporary	***Zip Code:***	92507
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	REMINGTON RICHARDS	***Street 2:***	
Date Became Current:	19980101	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Source Type:	Temporary	**Zip Code:**	
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	
Name:	REMINGTON RICHARDS	**Street 2:**	
Date Became Current:	19980101	**City:**	
Date Ended Current:		**State:**	
Phone:		**Country:**	US
Source Type:	Notification	**Zip Code:**	
Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	1450 CITRUS ST
Name:	RELIABLE WHOLESALE LUMBER INC	**Street 2:**	
Date Became Current:	19820101	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-300-2514	**Country:**	US
Source Type:	Notification	**Zip Code:**	92507

Historical Handler Details

Receive Dt:	20110627
Generator Code Description:	Small Quantity Generator
Handler Name:	RELIABLE WHOLESALE LUMBER INC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
36	1 of 1	WNW	0.24 / 1,261.59	915.30 / -26	K & N ENGINEERING INC 1380 CITRUS ST RIVERSIDE CA 92507	RCRA NON GEN

EPA Handler ID:	CAL000437472
Gen Status Universe:	No Report
Contact Name:	MATTHEW MERCANTE
Contact Address:	1455 CITRUS ST , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext:	909-275-6726
Contact Email:	MATTHEWM@KNFILTERS.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20180717
Location Latitude:	34.008402
Location Longitude:	-117.341735

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20180717
Handler Name:	K & N ENGINEERING INC
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1455 CITRUS ST
Name:	K&N ENGINEERING INC	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-826-4000	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1455 CITRUS ST
Name:	MATTHEW MERCANTE	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	909-275-6726	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507

37	*1 of 1*	*E*	*0.24 / 1,273.33*	*987.77 / 47*	***CALIFORNIA CUSTOM BOTTLES*** ***813 PALMYRITA CT*** ***RIVERSIDE CA 92507***	***RCRA SQG***

EPA Handler ID:	CAR000237057
Gen Status Universe:	Small Quantity Generator
Contact Name:	SCOTT WILLIAMS
Contact Address:	813 PALMYRITA CT , , RIVERSIDE , CA, 92507 , US
Contact Phone No and Ext:	909-705-8025
Contact Email:	ADMIN@CALBOTTLES.COM
Contact Country:	US
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	Private
Receive Date:	20130429
Location Latitude:	34.006019
Location Longitude:	-117.329268

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No

Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20130429
Handler Name: CALIFORNIA CUSTOM BOTTLES
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Notification

Waste Code Details

Hazardous Waste Code: 122
Waste Code Description: Alkaline solution without metals (pH > 12.5)

Hazardous Waste Code: 221
Waste Code Description: Waste oil and mixed oil

Hazardous Waste Code: 791
Waste Code Description: Liquids with pH < 2

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Private
Name: CMD REAL ESTATE
Date Became Current: 20100910
Date Ended Current:
Phone:
Source Type: Notification
Street No:
Street 1: PO BOX 2356
Street 2:
City: NEWPORT BEACH
State: CA
Country: US
Zip Code: 92627

Owner/Operator Ind: Current Operator
Type: Private
Name: CALIFORNIA CUSTOM BOTTLES
Date Became Current: 20101201
Date Ended Current:
Phone:
Source Type: Notification
Street No:
Street 1:
Street 2:
City:
State:
Country: US
Zip Code:

38	1 of 1	ENE	0.24 / 1,280.77	983.08 / 42	TRADE MARK PLASTICS INC 807 PALMYRITA AVE RIVERSIDE CA 92507-1805	RCRA NON GEN

EPA Handler ID: CAL000271370
Gen Status Universe: No Report
Contact Name: DEBBIE PEARLE
Contact Address: 807 PALMYRITA AVE , , RIVERSIDE , CA, 92507 ,
Contact Phone No and Ext: 951-231-1480
Contact Email: BGRAVES@TRADEMARKPLASTICS.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20030609
Location Latitude: 34.007177
Location Longitude: -117.329233

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20030609
Handler Name:	TRADE MARK PLASTICS INC
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	807 PALMYRITA COURT
Name:	ERIN/KRISTY CARTY	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	909-941-8810	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507-1805
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	807 PALMYRITA AVE
Name:	DEBBIE PEARLE	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	951-231-1480	***Country:***	
Source Type:	Implementer	***Zip Code:***	92507

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
39	1 of 1	WNW	0.25 / 1,296.67	915.91 / -25	DS WATERS OF AMERICA INC 1363 CITRUS ST RIVERSIDE CA 92507-1606	RCRA NON GEN

EPA Handler ID:	CAL000205993
Gen Status Universe:	No Report
Contact Name:	MARK CLAYTON
Contact Address:	2300 WINDY RIDGE PARKWAY , SUITE 500 NORTH , ATLANTA , GA, 30339 ,
Contact Phone No and Ext:	770-937-1455
Contact Email:	MCLAYTON@DSSERVICES.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Receive Date: 20001220
Location Latitude: 34.008462
Location Longitude: -117.341451

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20001220
Handler Name: DS WATERS OF AMERICA INC
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Other
Name: MARK CLAYTON
Date Became Current:
Date Ended Current:
Phone: 770-937-1455
Source Type: Implementer
Street No:
Street 1: 2300 WINDY RIDGE PARKWAY
Street 2: SUITE 500 NORTH
City: ATLANTA
State: GA
Country:
Zip Code: 30339

Owner/Operator Ind: Current Owner
Type: Other
Name: DS SERVICES OF AMERICA INC
Date Became Current:
Date Ended Current:
Phone: 770-933-1400
Source Type: Implementer
Street No:
Street 1: 2300 WINDY RIDGE PARKWAY
Street 2: SUITE 500 NORTH
City: ATLANTA
State: GA
Country:
Zip Code: 30339-0000

40	1 of 1	SW	0.26 / 1,381.88	921.89 / -19	INTERSECTION OF IOWA AND COLUMBIA INTERSECTION OF IOWA AND COLUMBIA RIVERSIDE CA 92507	ENVIROSTOR

Estor/EPA ID: 33000007
Site Code:
Nat Priority List: NO
Assembly District: 64
Senate District:
Permit Renewal Lead:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

APN: NONE SPECIFIED
Census Tract:
Site Type: EVALUATION
Address Description: INTERSECTION OF IOWA AND COLUMBIA
Office: CLEANUP CYPRESS
Special Program:
Funding: NOT APPLICABLE
Cleanup Status: REFER: 1248 LOCAL AGENCY AS OF 6/18/2004
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Potential Contamin of Concern:

NONE SPECIFIED

Site History:

Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 0
Longitude: 0
Acres: NONE SPECIFIED
Supervisor:

Status: REFER: 1248 LOCAL AGENCY
Program Type: EVALUATION
CalEnviroScreen Score:
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33000007

41	1 of 2	WSW	0.29 / 1,520.59	910.91 / -30	Alumax Mill 1495 Columbia Ave Riverside CA	LOP RIVERSIDE

Site ID: 89197
Status Code: 9
Status Desc: CLOSED/ACTION COMPLETED
Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED

Closed Code: Y
Closed Desc: CLOSED SITE
Employee: Rogers

41	2 of 2	WSW	0.29 / 1,520.59	910.91 / -30	ALUMAX MILL PRODUCTS 1495 COLUMBIA AVE RIVERSIDE CA 92507	ENVIROSTOR

Estor/EPA ID: 60000213
Site Code:
Nat Priority List: NO
APN: 249040005
Census Tract: 6065042209
Site Type: EVALUATION
Address Description: 1495 COLUMBIA AVE
Office: CLEANUP CYPRESS
Special Program: EPA - PASI
Funding: NOT APPLICABLE
Cleanup Status: INACTIVE - NEEDS EVALUATION AS OF 3/6/2006
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY US EPA
School District:
Past Use that Caused Contam: MANUFACTURING - OTHER, PAINT/DEPAINT FACILITY
Potential Media Affected: SOIL
Potential Contamin of Concern:

NONE SPECIFIED

Site History:

Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 34.0026163962226
Longitude: -117.343072887417
Acres: 16.39 ACRES
Supervisor: * GREG HOLMES

Status: INACTIVE - NEEDS EVALUATION
Program Type: EVALUATION
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000213

Completed Activities

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Title: Site Screening Assessment
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000213&doc_id=6010733
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 6/13/2006
Comments: Site Screening approved by EPA. Further action required.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
42	1 of 1	SW	0.31 / 1,612.81	909.61 / -31	ALUMAX MILL 1495 COLUMBIA AVE RIVERSIDE CA 92507	LUST

Global ID: T0606588288
Status: COMPLETED - CASE CLOSED
Status Date: 1989-04-14 00:00:00
Case Type: LUST CLEANUP SITE
Date Source: LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download
County: RIVERSIDE
Latitude: 34.003633
Longitude: -117.340973

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No:
Local Case No: 89197
Begin Date: 6/17/1987
Lead Agency: RIVERSIDE COUNTY LOP
Local Agency: RIVERSIDE COUNTY LOP
CUF Case: NO
CalEnvScreen Score: 91-95%
EPA Region: 9
Qty Rlsd Gallons:
Potential Media of Concern:
How Discovered Description:
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Coordinate Source: Google Geocode
Discharge Cause:
Discharge Source:
File Location: Local Agency Warehouse
Site History:
Potential COC: Gasoline
How Discovered:
Stop Method: Close and Remove Tank
Stop Description:
Case Worker: RIV
Military DoD Site: No
Leak Reported Dt: 1987-06-17 00:00:00
No Further Action Dt: 1989-04-14 00:00:00

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 5/8/1991
Action: File review

Action Type: ENFORCEMENT
Date : 4/14/1989
Action: Closure/No Further Action Letter - #RCDEH41489

Action Type: ENFORCEMENT
Date : 4/13/1989
Action: File review - #RCDEH Upload Site File 3/16/2010

Action Type: Other
Date : 6/17/1987
Action: Leak Reported

Action Type: REMEDIATION
Date : 6/17/1987
Action: Soil Vapor Extraction (SVE)

Action Type: Other
Date : 6/17/1987
Action: Leak Discovery

Action Type: Other
Date : 6/17/1987
Action: Leak Stopped

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 4/14/1989

Status: Open - Remediation
Status Date: 8/16/1987

Status: Open - Site Assessment
Status Date: 7/9/1987

Status: Open - Site Assessment
Status Date: 6/17/1987

Status: Open - Case Begin Date
Status Date: 6/17/1987

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: ALUMAX MILL
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig:
CUF Amount Paid:
Potential COC: GASOLINE
Facility Type:
Composting Method:
Address: 1495 COLUMBIA AVE.
City: RIVERSIDE
Zip: 92507
County: RIVERSIDE
CUF Claim:
File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606588288
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 4/14/1989
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606588288&tabname=regulatoryhistory
Potential Media of Concern: NONE SPECIFIED
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 89197
SANTA ANA RWQCB (REGION 8)
CASEWORKER: Ken Williams
Gndwater Monitoring Freque:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed
Date : 4/14/1989

Status: Open - Remediation

Date : 8/16/1987

Status: Open - Site Assessment
Date : 7/9/1987

Status: Open - Site Assessment
Date : 6/17/1987

Status: Open - Case Begin Date
Date : 6/17/1987

Sites from GeoTracker Search - Cleanup Action Report

Action Type: SOIL VAPOR EXTRACTION (SVE)
Phase: Soil
Contaminant Mass Removed:
Description:
Begin Date: 6/17/1987
End Date: 4/17/1989

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 5/8/1991
Received Issue Date: 5/8/1991
Action: File review
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606588288&enforcement_id=6241274&temptable=ENFORCEMENT
Title Description Comments:

Regional Board files regarding filter cake disposal 1987-1991. Uploaded 4/7/2015.

Action Type: Other Regulatory Actions
Action Date: 4/14/1989
Received Issue Date: 4/14/1989
Action: Closure/No Further Action Letter - #RCDEH41489
Doc Link:
Title Description Comments:

Riv Co LOP issued NFA letter 4/14/1989

Action Type: Other Regulatory Actions
Action Date: 4/13/1989
Received Issue Date: 4/13/1989
Action: File review - #RCDEH Upload Site File 3/16/2010
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606588288&enforcement_id=6045297&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 07/13/2016

Action Type: Cleanup Action
Action Date: 6/17/1987
Received Issue Date:
Action: Soil Vapor Extraction (SVE)
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/17/1987
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/17/1987
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/17/1987
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 5/22/2008
Type: LETTER
Title: CLOSURE LETTER
Title Link: https://geotracker.waterboards.ca.gov/site_documents/2676579117/Closure%20Letter%2Epdf
Size : 68 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 5/22/2008
Type: REPORT
Title: SITE DATA SHEET
Title Link: https://geotracker.waterboards.ca.gov/site_documents/5884704411/Site%20Data%20Sheet%2Epdf
Size : 37 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 5/8/1991
Type: FILE REVIEW
Title: REGIONAL BOARD FILES REGARDING FILTER CAKE DISPOSAL 1987-1991. UPLOADED 4/7/2015.
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606588288&enforcement_id=6241274
Size :
Submitted By: PAMELA YBARRA (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 4/13/1989
Type: FILE REVIEW
Title: RCDEH UPLOAD SITE FILE 07/13/2016
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606588288&enforcement_id=6045297
Size :
Submitted By: SHARON BOLTINGHOUSE (REGULATOR)
Submitted:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
43	1 of 2	WNW	0.31 / 1,615.36	905.63 / -35	Georgia Pacific Corp 1450 Citrus Ave Riverside CA	LOP RIVERSIDE

Site ID: 94127
Status Code: 9
Status Desc: CLOSED/ACTION COMPLETED
Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED
Closed Code: Y
Closed Desc: CLOSED SITE
Employee: Boltinghous-LOP

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
43	2 of 2	WNW	0.31 / 1,615.36	905.63 / -35	GEORGIA PACIFIC CORP. 1450 CITRUS AVE RIVERSIDE CA 92507	LUST

Global ID: T0606500364
Status: COMPLETED - CASE CLOSED
Status Date: 1995-05-15 00:00:00
Case Type: LUST CLEANUP SITE
Date Source: LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download
County: RIVERSIDE
Latitude: 34.007251
Longitude: -117.343082

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No: 083302407T
Local Case No: 94127
Begin Date: 12/8/1993
Lead Agency: RIVERSIDE COUNTY LOP
Local Agency: RIVERSIDE COUNTY LOP
CUF Case: NO
CalEnvScreen Score: 91-95%
EPA Region: 9
Qty Rlsd Gallons:
Potential Media of Concern: Soil
How Discovered Description:
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Coordinate Source: Google Geocode
Discharge Cause: Unknown
Discharge Source: Other
File Location: Local Agency Warehouse
Site History:

Potential COC: Gasoline
How Discovered: Tank Closure
Stop Method:
Stop Description:
Case Worker: SCB
Military DoD Site: No
Leak Reported Dt: 1994-02-17 00:00:00
No Further Action Dt: 1995-05-15 00:00:00

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 5/15/1995
Action: Closure/No Further Action Letter - #RCDEH0515

Action Type: ENFORCEMENT
Date : 5/14/1995
Action: Other Report - #UST Sample Analytical Report

Action Type: ENFORCEMENT
Date : 5/14/1995
Action: File review - #Riv Co site file

Action Type: ENFORCEMENT
Date : 4/25/1995
Action: Technical Correspondence / Assistance / Other

Action Type: ENFORCEMENT
Date : 4/11/1995
Action: LOP Case Closure Summary to RB

Action Type: RESPONSE
Date : 1/4/1995
Action: Soil and Water Investigation Report

Action Type: RESPONSE
Date : 8/1/1994
Action: Soil and Water Investigation Workplan

Action Type: ENFORCEMENT
Date : 3/17/1994
Action: Notice of Responsibility

Action Type: RESPONSE
Date : 3/3/1994
Action: Unauthorized Release Form

Action Type: Other
Date : 2/17/1994
Action: Leak Reported

Action Type: Other
Date : 2/15/1994
Action: Leak Discovery

Action Type: Other
Date : 12/8/1993
Action: Leak Stopped

Action Type: REMEDIATION
Date : 12/8/1993
Action: Excavation

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email: sbolting@rivco.org
Phone No: 9519558980

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 5/15/1995

Status: Open - Site Assessment
Status Date: 2/17/1994

Status: Open - Case Begin Date
Status Date: 12/8/1993

Status: Open - Remediation
Status Date: 12/8/1993

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: GEORGIA PACIFIC CORP.
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig:
CUF Amount Paid:
Potential COC: GASOLINE
Facility Type:
Composting Method:
Address: 1450 CITRUS AVE
City: RIVERSIDE
Zip: 92507
County: RIVERSIDE
CUF Claim:
File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500364
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 5/15/1995
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500364&tabname=regulatoryhistory
Potential Media of Concern: SOIL
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 94127
CASEWORKER: SHARON BOLTINGHOUSE
SANTA ANA RWQCB (REGION 8) - CASE #: 083302407T
CASEWORKER: ROSE SCOTT
Gndwater Monitoring Freque:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed
Date : 5/15/1995

Status: Open - Site Assessment
Date : 2/17/1994

Status: Open - Remediation
Date : 12/8/1993

Status: Open - Case Begin Date
Date : 12/8/1993

Sites from GeoTracker Search - Cleanup Action Report

Action Type: EXCAVATION
Phase: Soil
Begin Date: 12/8/1993
End Date: 1/6/1994
Contaminant Mass Removed:
Description: CONTAMINATED SOIL WAS TRANSPORTED TO TPS IN ADELANTO, CALIFORNIA.

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 5/15/1995
Received Issue Date: 5/15/1995
Action: Closure/No Further Action Letter - #RCDEH0515
Doc Link:
Title Description Comments:

Riv Co LOP issued NFA letter dated 5/15/1995

Action Type: Other Regulatory Actions
Action Date: 5/14/1995
Received Issue Date: 5/14/1995
Action: File review - #Riv Co site file
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500364&enforcement_id=6239231&temptable=ENFORCEMENT
Title Description Comments:

Riverside County LOP site file

Action Type: Reports
Action Date: 5/14/1995
Received Issue Date: 5/14/1995
Action: Other Report - #UST Sample Analytical Report
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500364&enforcement_id=6302198&temptable=ENFORCEMENT
Title Description Comments:

UST Sample Analytical Review 11/19/2008

Action Type: Other Regulatory Actions
Action Date: 4/25/1995
Received Issue Date: 4/25/1995
Action: Technical Correspondence / Assistance / Other
Doc Link:
Title Description Comments:

Action Type: Other Regulatory Actions
Action Date: 4/11/1995
Received Issue Date: 4/11/1995
Action: LOP Case Closure Summary to RB
Doc Link:
Title Description Comments:

Action Type: Response Requested - Reports
Action Date: 1/4/1995
Received Issue Date: 1/4/1995
Action: Soil and Water Investigation Report
Doc Link:
Title Description Comments:

Soil and Water Investigation Report - ALSO INCLUDED CLOSURE REPORT

Action Type: Response Requested - Workplans
Action Date: 8/1/1994
Received Issue Date: 8/1/1994
Action: Soil and Water Investigation Workplan
Doc Link:
Title Description Comments:

Soil and Water Investigation Workplan

Action Type: Notices
Action Date: 3/17/1994
Received Issue Date: 3/17/1994
Action: Notice of Responsibility
Doc Link:
Title Description Comments:

Action Type: Response Requested - Other
Action Date: 3/3/1994
Received Issue Date: 3/3/1994
Action: Unauthorized Release Form
Doc Link:
Title Description Comments:

Unauthorized Release Form

Action Type: Leak Action
Action Date: 2/15/1994
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 2/17/1994
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 12/8/1993
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Action Type: Cleanup Action
Action Date: 12/8/1993
Received Issue Date:
Action: Excavation
Doc Link:
Title Description Comments:

CONTAMINATED SOIL WAS TRANSPORTED TO TPS IN ADELANTO, CALIFORNIA.

Sites from GeoTracker Search - Documents

Document Type:	Site Documents	**Size :**	56 KB
Document Date:	5/22/2008	**Submitted By:**	RIVERSIDE COUNTY LOP (REGULATOR)
Type:	LETTER	**Submitted:**	
Title:	RCDEH CASE CLOSURE LETTER		
Title Link:	https://geotracker.waterboards.ca.gov/site_documents/4320800602/Closure%20Letter%2Epdf		

Document Type:	Site Documents	**Size :**	674 KB
Document Date:	5/22/2008	**Submitted By:**	RIVERSIDE COUNTY LOP (REGULATOR)
Type:	REPORT	**Submitted:**	
Title:	RCDEH CASE CLOSURE SUMMARY		
Title Link:	https://geotracker.waterboards.ca.gov/site_documents/8988911271/Case%20Closure%20Summary%2Epdf		

Document Type:	Site Documents	**Size :**	92 KB
Document Date:	5/22/2008	**Submitted By:**	RIVERSIDE COUNTY LOP (REGULATOR)
Type:	REPORT	**Submitted:**	
Title:	RCDEH URR		
Title Link:	https://geotracker.waterboards.ca.gov/site_documents/5796696305/Unauthorized%20Release%20Report%20%2D%20URR%2Epdf		

Document Type:	Site Documents	**Size :**	
Document Date:	5/14/1995	**Submitted By:**	SHARON BOLTINGHOUSE (REGULATOR)
Type:	FILE REVIEW	**Submitted:**	
Title:	RIVERSIDE COUNTY LOP SITE FILE		
Title Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500364&enforcement_id=6239231		

Document Type:	Site Documents	**Size :**	
Document Date:	5/14/1995	**Submitted By:**	LINDA SHURLOW (REGULATOR)
Type:	OTHER REPORT	**Submitted:**	
Title:	UST SAMPLE ANALYTICAL REVIEW 11/19/2008		
Title Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500364&enforcement_id=6302198		

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44 **1 of 1** **W** **0.32 / 1,666.28** **899.57 / -41** ***EVEREADY PACIFIC*** ***1499 PALMYRITA*** ***RIVERSIDE CA 92507-0000*** ***RCRA TSD***

EPA Handler ID:	CAR000075184
Gen Status Universe:	Large Quantity Generator
Contact Name:	REBECCA PALMER
Contact Address:	P O BOX 351 , , RIVERSIDE , CA, 92502-0351 , US
Contact Phone No and Ext:	951-977-8802
Contact Email:	REBECCAP@JMCCAT.COM
Contact Country:	US
Land Type:	Private
County Name:	RIVERSIDE
EPA Region:	09
Receive Date:	20181018
Location Latitude:	34.005933
Location Longitude:	-117.329211

Violation/Evaluation Summary

Note:	NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No

Transfer Facility:	No
Onsite Burner Exemption:	No
Smelting, Melting and Refining:	No
Underground Injection Control:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20000612
Handler Name:	EVEREADY PACIFIC
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator
Source Type:	Implementer

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20000612
Handler Name:	EVEREADY PACIFIC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Notification

Waste Code Details

Hazardous Waste Code:	D002
Waste Code Description:	CORROSIVE WASTE

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20181018
Handler Name:	EVEREADY PACIFIC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report update with Notification

Waste Code Details

Hazardous Waste Code:	121
Waste Code Description:	Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Hazardous Waste Code:	352
Waste Code Description:	Other organic solids
Hazardous Waste Code:	D002
Waste Code Description:	CORROSIVE WASTE
Hazardous Waste Code:	D007
Waste Code Description:	CHROMIUM
Hazardous Waste Code:	D008
Waste Code Description:	LEAD

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	P O BOX 351
Name:	EVER-PAC	**Street 2:**	
Date Became Current:	19990101	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-977-8802	**Country:**	US
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	92502-0351

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	P O BOX 351
Name:	JOHNSON MACHINERY	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	909-686-4560	**Country:**	
Source Type:	Notification	**Zip Code:**	92501

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	P O BOX 351
Name:	EVER-PAC	**Street 2:**	
Date Became Current:	19990101	**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	951-977-8802	**Country:**	US
Source Type:	Annual/Biennial Report update with Notification	**Zip Code:**	92502-0351

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	P O BOX 351
Name:	JOHNSON MACHINERY	**Street 2:**	
Date Became Current:		**City:**	RIVERSIDE
Date Ended Current:		**State:**	CA
Phone:	909-686-4560	**Country:**	
Source Type:	Implementer	**Zip Code:**	92501

Historical Handler Details

Receive Dt:	20000612
Generator Code Description:	Small Quantity Generator
Handler Name:	EVEREADY PACIFIC

Receive Dt:	20000612
Generator Code Description:	Large Quantity Generator
Handler Name:	EVEREADY PACIFIC

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45 **1 of 10** **SSW** **0.34 / 1,788.83** **932.00 / -9** **BOURNS INC**
1200 COLUMBIA AVE
RIVERSIDE CA 92507 **CERCLIS**

Site ID:	0900365	**RNPL Status Code:**	N
Site EPA ID:	CAD008255754	**NPL Status:**	Not on the NPL
Site Street Address 2:		**RFED Facility Code:**	N
Site County Name:	RIVERSIDE	**RFED Facility Desc:**	Not a Federal Facility
Site FIPS Code:	06065	**USGS Hydro Unit No.:**	1807/0203
Region Code:	09	**Site Cong. Dist. Code:**	36
Site SMSA No.:	6780	**ROT Desc:**	Private
Site Prim. Latitude:	34D00M54S	**FR NPL Update No.:**	
Site Prim. Longitude:	117D20M00S	**RFRA Code:**	
Lat Long Source:			
RNON NPL Status Desc:	Deferred to RCRA		

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	EPA In-House
Act Code ID:	001	**Act Start Date:**	
RAT Code:	VS	**Act Complete Date:**	1/23/1996 00:00:00

RAT Short Name:	ARCH SITE	**AGT Order No.:**	1500
RAT Name:	ARCHIVE SITE	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:	13		
RAT Def:	The decision is made that no further activity is planned at the site.		
Site Desc:			
Site Alias:			

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	EPA Fund
Act Code ID:	001	**Act Start Date:**	
RAT Code:	DS	**Act Complete Date:**	4/1/1991 00:00:00
RAT Short Name:	DISCVRY	**AGT Order No.:**	10
RAT Name:	DISCOVERY	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:	13		
RAT Def:	The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.		
Site Desc:			
Site Alias:			

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	EPA Fund
Act Code ID:	001	**Act Start Date:**	
RAT Code:	PA	**Act Complete Date:**	8/20/1991 00:00:00
RAT Short Name:	PA	**AGT Order No.:**	130
RAT Name:	PRELIMINARY ASSESSMENT	**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:	B	**SH Seq:**	
RAT Level:	1	**SH Start Date:**	
RAT DEF OU:	00	**SH Complete Date:**	
RFBS Code:	P	**SH Lead:**	
SPA Code:	13		
RAT Def:	Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.		
Site Desc:			
Site Alias:			

CERCLIS Assess History

OU ID:	00	**RALT Short Name:**	
Act Code ID:		**Act Start Date:**	
RAT Code:		**Act Complete Date:**	
RAT Short Name:		**AGT Order No.:**	0
RAT Name:		**SH OU:**	
RAT Hist. Only Flag:		**SH Code:**	
RAT NSI Indicator:		**SH Seq:**	
RAT Level:		**SH Start Date:**	
RAT DEF OU:		**SH Complete Date:**	
RFBS Code:		**SH Lead:**	
SPA Code:			
RAT Def:			
Site Desc:	No description available		
Site Alias:	No alias data available		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
45	2 of 10	SSW	0.34 / 1,788.83	932.00 / -9	BOURNS INC 1200 COLUMBIA AVE RIVERSIDE CA 92507	CERCLIS NFRAP

Site ID: 900365
Site EPA ID: CAD008255754
Site Parent ID:
Site County Name: RIVERSIDE
Parent Site Name:
Site FIPS Code: 6065
Region Code: 9
Site Cong. Dist. Code: 36
Federal Facility:

CERCLIS-NFRAP Assess History

OU ID: 0
Act Code ID: 1
RAT Code: PA
RAT Short Name: PA
RAT Name: PRELIMINARY ASSESSMENT
RAT Hist. Only Flag:
RAT NSI Indicator: B
RAT Level: 1
RAT DEF OU: 00
RFBS Code: P
SPA Code: 13
RALT Short Name: EPA Fund
Act Start Date:
Act Complete Date: 8/20/1991
AGT Order No.: 130
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:
SH Qual:
RAQ Act. Qual Short: Deferred to RCRA
RNPL Status Code: N
RAT Def: Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.
RNON NPL Status Desc: Deferred to RCRA

CERCLIS-NFRAP Assess History

OU ID: 0
Act Code ID: 1
RAT Code: DS
RAT Short Name: DISCVRY
RAT Name: DISCOVERY
RAT Hist. Only Flag:
RAT NSI Indicator: B
RAT Level: 1
RAT DEF OU: 00
RFBS Code:
SPA Code: 13
RALT Short Name: EPA Fund
Act Start Date:
Act Complete Date: 4/1/1991
AGT Order No.: 10
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:
SH Qual:
RAQ Act. Qual Short:
RNPL Status Code: N
RAT Def: The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.
RNON NPL Status Desc: Deferred to RCRA

CERCLIS-NFRAP Assess History

OU ID: 0
Act Code ID: 1
RAT Code: VS
RAT Short Name: ARCH SITE
RAT Name: ARCHIVE SITE
RAT Hist. Only Flag:
RAT NSI Indicator: B
RAT Level: 1
RAT DEF OU: 00
RFBS Code:
SPA Code: 13
RALT Short Name: EPA In-House
Act Start Date:
Act Complete Date: 1/23/1996
AGT Order No.: 1500
SH OU:
SH Code:
SH Seq:
SH Start Date:
SH Complete Date:
SH Lead:
SH Qual:
RAQ Act. Qual Short:
RNPL Status Code: N
RAT Def: The decision is made that no further activity is planned at the site.
RNON NPL Status Desc: Deferred to RCRA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
45	3 of 10	SSW	0.34 / 1,788.83	932.00 / -9	BOURNS INC 1200 COLUMBIA AVE RIVERSIDE CA 92507	RCRA TSD

EPA Handler ID: CAD008255754
Gen Status Universe: Small Quantity Generator
Contact Name:
Contact Address: US
Contact Phone No and Ext:
Contact Email:
Contact Country: US
Land Type:
County Name: RIVERSIDE
EPA Region: 09
Receive Date: 19960901
Location Latitude: 34.001109
Location Longitude: -117.337235

Violation/Evaluation Summary

Note: VIOLATION or UNDETERMINED: There are VIOLATION or UNDETERMINED details or records associated with this facility (EPA ID) in the Compliance Monitoring and Enforcement table dated Jan, 2022.

Violation Details

Found Violation: Yes
Citation:
Violation Short Description: Generators - General
Violation Type: 262.A
Violation Determined Date: 20100302
Scheduled Compliance Date: 20100318
Return to Compliance: Documented
Actual Return to Compl: 20100318
Violation Responsible Agency: State

Enforcement Details

Enforcement Type: 120
Enforcement Type Description: WRITTEN INFORMAL
Enforcement Action Date: 20100302
Enf Disposition Status:
Disposition Status Date:
Enforcement Lead Agency: State
Proposed Penalty Amount:
Final Amount:
Paid Amount:

Violation Details

Found Violation: Yes
Citation: FR - 264.140-150.H
Violation Short Description: TSD - Financial Requirements
Violation Type: 264.H
Violation Determined Date: 19930612
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19940211
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 262.10-12.A

Violation Short Description: Generators - General
Violation Type: 262.A
Violation Determined Date: 19911002
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 264.70-77.E
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19911002
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 264.50-56.D
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19911002
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 270
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19911002
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 264.170-177.I
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19911002
Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: F - 268 ALL
Violation Short Description: LDR - General
Violation Type: 268.A
Violation Determined Date: 19911002

Scheduled Compliance Date:
Return to Compliance: Observed
Actual Return to Compl: 19920529
Violation Responsible Agency: State

Violation Details

Found Violation: Yes
Citation: FR - 264.140-150.H
Violation Short Description: TSD - Financial Requirements
Violation Type: 264.H
Violation Determined Date: 19880412
Scheduled Compliance Date: 19880514
Return to Compliance: Observed
Actual Return to Compl: 19890113
Violation Responsible Agency: State

Enforcement Details

Enforcement Type: 120
Enforcement Type Description: WRITTEN INFORMAL
Enforcement Action Date: 19880414
Enf Disposition Status:
Disposition Status Date:
Enforcement Lead Agency: State
Proposed Penalty Amount:
Final Amount:
Paid Amount:

Violation Details

Found Violation: Yes
Citation: FR - 270
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19880411
Scheduled Compliance Date: 19880830
Return to Compliance: Observed
Actual Return to Compl: 19880830
Violation Responsible Agency: State

Enforcement Details

Enforcement Type: 120
Enforcement Type Description: WRITTEN INFORMAL
Enforcement Action Date: 19880727
Enf Disposition Status:
Disposition Status Date:
Enforcement Lead Agency: State
Proposed Penalty Amount:
Final Amount:
Paid Amount:

Evaluation Details

Evaluation Start Date: 20100302
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: Generators - General
Return to Compliance Date: 20100318
Evaluation Agency: State

Evaluation Start Date: 19930525
Evaluation Type Description: FINANCIAL RECORD REVIEW

Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19930428
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - Financial Requirements
Return to Compliance Date: 19940211
Evaluation Agency: State

Evaluation Start Date: 19911025
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19911025
Evaluation Type Description: FOCUSED COMPLIANCE INSPECTION
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: LDR - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: Generators - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19910925
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State Contractor/Grantee

Evaluation Start Date: 19880412
Evaluation Type Description: FINANCIAL RECORD REVIEW
Violation Short Description: TSD - Financial Requirements
Return to Compliance Date: 19890113
Evaluation Agency: State

Evaluation Start Date: 19880411
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19880411
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - General
Return to Compliance Date: 19880830
Evaluation Agency: State

Handler Summary

Importer Activity: No
Mixed Waste Generator: No

Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Smelting, Melting and Refining:	No
Underground Injection Control:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19801126
Handler Name:	BOURNS INC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Notification

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19900326
Handler Name:	BOURNS INC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No:	2
Receive Date:	19920203
Handler Name:	BOURNS INC
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No:	3
Receive Date:	19940323
Handler Name:	BOURNS, INC.
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No:	4
Receive Date:	19960228
Handler Name:	BOURNS, INC.
Federal Waste Generator Code:	1
Generator Code Description:	Large Quantity Generator
Source Type:	Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No:	1

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Receive Date: 19960901
Handler Name: BOURNS INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Implementer

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 19960901
Handler Name: BOURNS INC
Federal Waste Generator Code: 2
Generator Code Description: Small Quantity Generator
Source Type: Implementer

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Private
Name: BOURNS INC
Date Became Current:
Date Ended Current:
Phone: 714-781-5481
Source Type: Notification
Street No:
Street 1: 1200 COLUMBIA AVENUE
Street 2:
City: RIVERSIDE
State: CA
Country:
Zip Code: 92507

Owner/Operator Ind: Current Operator
Type: Private
Name: BOURNS INC
Date Became Current:
Date Ended Current:
Phone: 714-781-5481
Source Type: Implementer
Street No:
Street 1: 1200 COLUMBIA AVENUE
Street 2:
City: CITY NOT REPORTED
State: CA
Country:
Zip Code: 99999

Historical Handler Details

Receive Dt: 19960901
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS INC

Receive Dt: 19960228
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS, INC.

Receive Dt: 19940323
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS, INC.

Receive Dt: 19920203
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS INC

Receive Dt: 19900326
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS INC

Receive Dt: 19801126
Generator Code Description: Large Quantity Generator
Handler Name: BOURNS INC

45	4 of 10	SSW	0.34 / 1,788.83	932.00 / -9	BOURNS INC 1200 COLUMBIA AVE RIVERSIDE CA 92507	RCRA CORRACTS

EPA Handler ID: CAD008255754
Gen Status Universe: Small Quantity Generator

Contact Name:	
Contact Address:	US
Contact Phone No and Ext:	
Contact Email:	
Contact Country:	US
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	19960901
Location Latitude:	34.001109
Location Longitude:	-117.337235

Event/Area Details

Area Name:	ENTIRE FACILITY
Event Code:	CA900NC
Corrective Action Event Descri:	CA PERFORMANCE STANDARDS ATTAINED - NO CONTROLS NECESSARY
Actual Date of Event:	20200327
Orig Sched Event Date:	20200405
New Sched Event Date:	
Best Date:	20200327
Groundwater Release Indicator:	
Soil Release Indicator:	
Air Release Indicator:	
Surface Waste Release Ind:	
Event Responsible Agency:	S

Area Name:	ENTIRE FACILITY
Event Code:	CA725YE
Corrective Action Event Descri:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date of Event:	20130625
Orig Sched Event Date:	20130829
New Sched Event Date:	
Best Date:	20130625
Groundwater Release Indicator:	
Soil Release Indicator:	
Air Release Indicator:	
Surface Waste Release Ind:	
Event Responsible Agency:	S

Area Name:	ENTIRE FACILITY
Event Code:	CA750YE
Corrective Action Event Descri:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Actual Date of Event:	20140226
Orig Sched Event Date:	20140504
New Sched Event Date:	
Best Date:	20140226
Groundwater Release Indicator:	
Soil Release Indicator:	
Air Release Indicator:	
Surface Waste Release Ind:	
Event Responsible Agency:	S

Area Name:	ENTIRE FACILITY
Event Code:	CA550RC
Corrective Action Event Descri:	REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Actual Date of Event:	20140226
Orig Sched Event Date:	20140506
New Sched Event Date:	
Best Date:	20140226
Groundwater Release Indicator:	
Soil Release Indicator:	
Air Release Indicator:	
Surface Waste Release Ind:	
Event Responsible Agency:	S

Area Name:	ENTIRE FACILITY
Event Code:	CA800YE

Corrective Action Event Descri:	READY FOR ANTICIPATED USE DETERMINATION - READY FOR ANTICIPATED USE
Actual Date of Event:	20200327
Orig Sched Event Date:	20200405
New Sched Event Date:	
Best Date:	20200327
Groundwater Release Indicator:	
Soil Release Indicator:	
Air Release Indicator:	
Surface Waste Release Ind:	
Event Responsible Agency:	S

Violation/Evaluation Summary

Note: VIOLATION or UNDETERMINED: There are VIOLATION or UNDETERMINED details or records associated with this facility (EPA ID) in the Compliance Monitoring and Enforcement table dated Jan, 2022.

Violation Details

Found Violation:	Yes
Citation:	
Violation Short Description:	Generators - General
Violation Type:	262.A
Violation Determined Date:	20100302
Scheduled Compliance Date:	20100318
Return to Compliance:	Documented
Actual Return to Compl:	20100318
Violation Responsible Agency:	State

Enforcement Details

Enforcement Type:	120
Enforcement Type Description:	WRITTEN INFORMAL
Enforcement Action Date:	20100302
Enf Disposition Status:	
Disposition Status Date:	
Enforcement Lead Agency:	State
Proposed Penalty Amount:	
Final Amount:	
Paid Amount:	

Violation Details

Found Violation:	Yes
Citation:	FR - 264.140-150.H
Violation Short Description:	TSD - Financial Requirements
Violation Type:	264.H
Violation Determined Date:	19930612
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19940211
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 262.10-12.A
Violation Short Description:	Generators - General
Violation Type:	262.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 264.50-56.D
Violation Short Description:	TSD - General
Violation Type:	264.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 270
Violation Short Description:	TSD - General
Violation Type:	264.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 264.70-77.E
Violation Short Description:	TSD - General
Violation Type:	264.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 264.170-177.I
Violation Short Description:	TSD - General
Violation Type:	264.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation:	Yes
Citation:	F - 268 ALL
Violation Short Description:	LDR - General
Violation Type:	268.A
Violation Determined Date:	19911002
Scheduled Compliance Date:	
Return to Compliance:	Observed
Actual Return to Compl:	19920529
Violation Responsible Agency:	State

Violation Details

Found Violation: Yes
Citation: FR - 264.140-150.H
Violation Short Description: TSD - Financial Requirements
Violation Type: 264.H
Violation Determined Date: 19880412
Scheduled Compliance Date: 19880514
Return to Compliance: Observed
Actual Return to Compl: 19890113
Violation Responsible Agency: State

Enforcement Details

Enforcement Type: 120
Enforcement Type Description: WRITTEN INFORMAL
Enforcement Action Date: 19880414
Enf Disposition Status:
Disposition Status Date:
Enforcement Lead Agency: State
Proposed Penalty Amount:
Final Amount:
Paid Amount:

Violation Details

Found Violation: Yes
Citation: FR - 270
Violation Short Description: TSD - General
Violation Type: 264.A
Violation Determined Date: 19880411
Scheduled Compliance Date: 19880830
Return to Compliance: Observed
Actual Return to Compl: 19880830
Violation Responsible Agency: State

Enforcement Details

Enforcement Type: 120
Enforcement Type Description: WRITTEN INFORMAL
Enforcement Action Date: 19880727
Enf Disposition Status:
Disposition Status Date:
Enforcement Lead Agency: State
Proposed Penalty Amount:
Final Amount:
Paid Amount:

Evaluation Details

Evaluation Start Date: 20100302
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: Generators - General
Return to Compliance Date: 20100318
Evaluation Agency: State

Evaluation Start Date: 19930525
Evaluation Type Description: FINANCIAL RECORD REVIEW
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19930428
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - Financial Requirements

Return to Compliance Date: 19940211
Evaluation Agency: State

Evaluation Start Date: 19911025
Evaluation Type Description: FOCUSED COMPLIANCE INSPECTION
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19911025
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: LDR - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19911002
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: Generators - General
Return to Compliance Date: 19920529
Evaluation Agency: State

Evaluation Start Date: 19910925
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State Contractor/Grantee

Evaluation Start Date: 19880412
Evaluation Type Description: FINANCIAL RECORD REVIEW
Violation Short Description: TSD - Financial Requirements
Return to Compliance Date: 19890113
Evaluation Agency: State

Evaluation Start Date: 19880411
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:
Return to Compliance Date:
Evaluation Agency: State

Evaluation Start Date: 19880411
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description: TSD - General
Return to Compliance Date: 19880830
Evaluation Agency: State

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner: No
Smelting, Melting and Refining: No
Underground Injection Control: No
Commercial TSD: No
Used Oil Transporter: No

Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19801126
Handler Name: BOURNS INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19900326
Handler Name: BOURNS INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 19920203
Handler Name: BOURNS INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No: 3
Receive Date: 19940323
Handler Name: BOURNS, INC.
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No: 4
Receive Date: 19960228
Handler Name: BOURNS, INC.
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Annual/Biennial Report

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19960901
Handler Name: BOURNS INC
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Implementer

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Handler Details

Sequence No:	2
Receive Date:	19960901
Handler Name:	BOURNS INC
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator
Source Type:	Implementer

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	1200 COLUMBIA AVENUE
Name:	BOURNS INC	***Street 2:***	
Date Became Current:		***City:***	RIVERSIDE
Date Ended Current:		***State:***	CA
Phone:	714-781-5481	***Country:***	
Source Type:	Notification	***Zip Code:***	92507
Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	1200 COLUMBIA AVENUE
Name:	BOURNS INC	***Street 2:***	
Date Became Current:		***City:***	CITY NOT REPORTED
Date Ended Current:		***State:***	CA
Phone:	714-781-5481	***Country:***	
Source Type:	Implementer	***Zip Code:***	99999

Historical Handler Details

Receive Dt:	19960901
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS INC
Receive Dt:	19960228
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS, INC.
Receive Dt:	19940323
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS, INC.
Receive Dt:	19920203
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS INC
Receive Dt:	19900326
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS INC
Receive Dt:	19801126
Generator Code Description:	Large Quantity Generator
Handler Name:	BOURNS INC

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
45	5 of 10	SSW	0.34 / 1,788.83	932.00 / -9	Bourns Inc 1200 Columbia Ave Riverside CA	LOP RIVERSIDE

Site ID:	95494	***Closed Code:***	Y
Status Code:	9	***Closed Desc:***	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	***Employee:***	Boltinghous-LOP
Case Type Code:	S		
Case Type Desc:	SOIL ONLY IS IMPACTED		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
45	6 of 10	SSW	0.34 / 1,788.83	932.00 / -9	BOURNS INC 1200 COLUMBIA AVE RIVERSIDE CA 92507	LUST

Global ID: T0606500426
Status: COMPLETED - CASE CLOSED
Status Date: 1996-04-12 00:00:00
Case Type: LUST CLEANUP SITE
Date Source: LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download

County: RIVERSIDE
Latitude: 34.000077
Longitude: -117.337626

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No: 083302686T
Local Case No: 95494
Begin Date: 6/7/1995
Lead Agency: RIVERSIDE COUNTY LOP
Local Agency: RIVERSIDE COUNTY LOP
CUF Case: NO
CalEnvScreen Score: 91-95%
EPA Region: 9
Qty Rlsd Gallons:
Potential Media of Concern: Soil
How Discovered Description: Preliminary Assesment
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Coordinate Source: Google Geocode
Discharge Cause:
Discharge Source: Other
File Location: Local Agency Warehouse
Site History:

Potential COC: Diesel
How Discovered: Tank Closure
Stop Method:
Stop Description: Removal of 500 gallon tank
Case Worker: SCB
Military DoD Site: No
Leak Reported Dt: 1995-06-07 00:00:00
No Further Action Dt: 1996-04-12 00:00:00

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 4/12/1996
Action: Closure/No Further Action Letter - #RCDEH0412

Action Type: Other
Date : 4/12/1996
Action: Leak Stopped

Action Type: ENFORCEMENT
Date : 4/11/1996
Action: File review - #RCDEH Upload Site File 4/12/2010

Action Type: ENFORCEMENT
Date : 4/11/1996
Action: Technical Correspondence / Assistance / Other

Action Type: ENFORCEMENT
Date : 3/29/1996
Action: File review

Action Type: RESPONSE
Date : 1/3/1996
Action: Preliminary Site Assessment Report

Action Type: RESPONSE
Date : 11/9/1995
Action: Tank Removal Report / UST Sampling Report

Action Type: ENFORCEMENT
Date : 7/24/1995
Action: Site Visit / Inspection / Sampling

Action Type: Other
Date : 6/7/1995
Action: Leak Reported

Action Type: Other
Date : 6/7/1995
Action: Leak Discovery

Action Type: REMEDIATION
Date : 6/7/1995
Action: Soil Vapor Extraction (SVE)

Action Type: ENFORCEMENT
Date : 6/7/1995
Action: Notice of Responsibility

Action Type: RESPONSE
Date : 6/7/1995
Action: Unauthorized Release Form

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email: sbolting@rivco.org
Phone No: 9519558980

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 4/12/1996

Status: Open - Case Begin Date
Status Date: 6/7/1995

Status: Open - Site Assessment
Status Date: 6/7/1995

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: BOURNS INC
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig:
CUF Amount Paid:
Potential COC: DIESEL
Facility Type:
Composting Method:
Address: 1200 COLUMBIA AVE
City: RIVERSIDE
Zip: 92507
County: RIVERSIDE
CUF Claim:
File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500426
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 4/12/1996
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500426&tabname=regulatoryhistory
Potential Media of Concern: SOIL
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 95494
CASEWORKER: SHARON BOLTINGHOUSE
SANTA ANA RWQCB (REGION 8) - CASE #: 083302686T
Gndwater Monitoring Freque:

Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed
Date : 4/12/1996

Status: Open - Case Begin Date
Date : 6/7/1995

Status: Open - Site Assessment
Date : 6/7/1995

Sites from GeoTracker Search - Cleanup Action Report

Action Type: SOIL VAPOR EXTRACTION (SVE) ***Begin Date:*** 6/7/1995
Phase: Soil ***End Date:*** 4/12/1196
Contaminant Mass Removed:
Description:

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 4/12/1996
Received Issue Date: 4/12/1996
Action: Closure/No Further Action Letter - #RCDEH0412
Doc Link:
Title Description Comments:

Riv Co LOP letter NFA issued 4/12/1996

Action Type: Other Regulatory Actions
Action Date: 4/11/1996
Received Issue Date: 4/11/1996
Action: File review - #RCDEH Upload Site File 4/12/2010
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500426&enforcement_id=6047945&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 4/12/2010

Action Type: Other Regulatory Actions
Action Date: 4/11/1996
Received Issue Date: 4/11/1996
Action: Technical Correspondence / Assistance / Other
Doc Link:
Title Description Comments:

Action Type: Other Regulatory Actions
Action Date: 3/29/1996
Received Issue Date: 3/29/1996
Action: File review
Doc Link:
Title Description Comments:

Action Type: Response Requested - Reports
Action Date: 1/3/1996

Received Issue Date: 1/3/1996
Action: Preliminary Site Assessment Report
Doc Link:
Title Description Comments:

Preliminary Site Assessment Report

Action Type: Response Requested - Reports
Action Date: 11/9/1995
Received Issue Date: 11/9/1995
Action: Tank Removal Report / UST Sampling Report
Doc Link:
Title Description Comments:

UST Sampling Report

Action Type: Other Regulatory Actions
Action Date: 7/24/1995
Received Issue Date: 7/24/1995
Action: Site Visit / Inspection / Sampling
Doc Link:
Title Description Comments:

Action Type: Notices
Action Date: 6/7/1995
Received Issue Date: 6/7/1995
Action: Notice of Responsibility
Doc Link:
Title Description Comments:

LETTER BY THE LOP

Action Type: Response Requested - Other
Action Date: 6/7/1995
Received Issue Date: 6/7/1995
Action: Unauthorized Release Form
Doc Link:
Title Description Comments:

Unauthorized Release Form

Action Type: Cleanup Action
Action Date: 6/7/1995
Received Issue Date:
Action: Soil Vapor Extraction (SVE)
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/7/1995
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/7/1995
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 4/12/1996
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 5/16/2008
Type: REPORT
Title: RCDEH URR
Title Link: https://geotracker.waterboards.ca.gov/site_documents/5996490299/Unauthorized%20Release%20Report%2Epdf
Size : 84 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 5/16/2008
Type: LETTER
Title: RCDEH CASE CLOSURE LETTER
Title Link: https://geotracker.waterboards.ca.gov/site_documents/9509251236/Closure%20Letter%2Epdf
Size : 56 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 5/16/2008
Type: REPORT
Title: RCDEH CASE CLOSURE SUMMARY
Title Link: https://geotracker.waterboards.ca.gov/site_documents/3194309830/Case%20Closure%20Summary%2Epdf
Size : 237 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 4/11/1996
Type: FILE REVIEW
Title: RCDEH UPLOAD SITE FILE 4/12/2010
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500426&enforcement_id=6047945
Size :
Submitted By: STEVEN COOK (REGULATOR)
Submitted:

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45 | **7 of 10** | **SSW** | **0.34 / 1,788.83** | **932.00 / -9**

BOURNS INC
1200 COLUMBIA AVE
RIVERSIDE CA 925070000

ENVIROSTOR

Estor/EPA ID: CAD008255754
Site Code: 400349
Nat Priority List:
APN:
Census Tract: 6065042209
Site Type: CLOSED - PERMIT AUTHORITY: RCRA
Address Description: 1200 COLUMBIA AVE
Office:
Special Program:
Funding:
Cleanup Status:
Cleanup Oversight Agencies:
School District:
Past Use that Caused Contam:
Potential Media Affected:
Potential Contamin of Concern:
Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 34.000379
Longitude: -117.33695
Acres:
Supervisor:

Site History:

Status: CLOSED
Program Type: HAZ WASTE - RCRA
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=CAD008255754

Permit Units - Completed Activities

Date: 8/19/1983

Event Description: NEW OPERATING PERMIT - FINAL PERMIT
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 8/19/1988
Event Description: NEW OPERATING PERMIT - FINAL PERMIT (EXPIRES)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 6/1/1983
Event Description: NEW OPERATING PERMIT - PUBLIC COMMENT (BEGIN)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 8/19/1983
Event Description: NEW OPERATING PERMIT - FINAL PERMIT (EFFECTIVE)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 11/26/1980
Event Description: NEW OPERATING PERMIT - APPLICATION PART A RECEIVED
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 4/13/1983
Event Description: NEW OPERATING PERMIT - APPLICATION PART B RECEIVED
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 6/6/1983
Event Description: NEW OPERATING PERMIT - TECHNICAL COMPLETE LETTER
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Units Undergoing Closure

Date: 2/2/1994
Event Description: CLOSURE FINAL - ISSUE CLOSURE VERIFICATION
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:

Date: 1/14/1994
Event Description: CLOSURE FINAL - RECEIVE CLOSURE CERTIFICATION
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:

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45 | **8 of 10** | **SSW** | **0.34 / 1,788.83** | **932.00 / -9** | **BOURNS INC**
1200 COLUMBIA AVE
RIVERSIDE CA 925070000 | **ENVIROSTOR**

Estor/EPA ID: 80001537
Site Code: 400349
Nat Priority List: NO
APN: 249070028
Census Tract: 6065042209
Site Type: CORRECTIVE ACTION
Address Description: 1200 COLUMBIA AVE
Office: CLEANUP CHATSWORTH
Special Program:
Funding:

Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager: NARINE AGHAKIANT
County: RIVERSIDE
Latitude: 34.000379
Longitude: -117.33695
Acres: 2 ACRES
Supervisor: ALLAN PLAZA

Cleanup Status: NO ACTION REQUIRED AS OF 6/9/2015
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM
School District:
Past Use that Caused Contam: MANUFACTURING - ELECTRONIC
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

NO CONTAMINANTS FOUND

Site History:

Bourns operates an electronic component manufacturing facility at 1200 Columbia Avenue in the City of Riverside. Located on this site was a permitted Hazardous waste Storage Facility (TSDF). The TSDF was used solely for the purpose of storing hazardous wastes generated at the facility prior to disposal or recycling at an off-site permitted hazardous waste facility. Bourns closed the TSDF facility in 1989. The DTSC is preparing a RCRA Facility Assessment to ascertain if corrective action is required. In 2004, DTSC received an SB 1248 Notification for oversight of sampling and any corrective actions related to the cleanup of heavy metal contaminated soils discovered during development of the subject property by the County of Riverside Department of Environmental Health.

Status: NO ACTION REQUIRED
Program Type: CORRECTIVE ACTION
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001537

Completed Activities

Title: Human Exposure Controlled
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&enforcement_id=60312903
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Human Exposure Controlled
Date Completed: 6/25/2013
Comments: Completed

Title: Ground Water EI
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&enforcement_id=60336717
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Groundwater Migration Controlled
Date Completed: 2/26/2014
Comments:

Title: Cleanup Complete Environmental Indicator
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&enforcement_id=60478130
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Cleanup Complete
Date Completed: 3/27/2020
Comments:

Title: RFI Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&doc_id=60333358
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: RFI Report
Date Completed: 6/30/2004
Comments: The concentrations are well below the EPA's preliminary remediation goals for residential soils.

Title: PA OR CERCLA INSPECTION-NOT A PA PLUS (CA049PA)
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&doc_id=6025700

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 8/8/1991
Comments:

Title: Ready for Anticipated Use (RAU) EI
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&enforcement_id=60478129
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Ready for Anticipated Use
Date Completed: 3/27/2020
Comments:

Title: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION (CA225NR)
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Interim Measures Questionnaire
Date Completed: 2/28/1992
Comments:

Title: Remedy Construction Complete
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001537&enforcement_id=60348005
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Remedy Construction Complete
Date Completed: 2/26/2014
Comments:

45	9 of 10	SSW	0.34 / 1,788.83	932.00 / -9	**BOURNS INC** **1200 COLUMBIA AVE** **RIVERSIDE CA 925070000**	HWP

Estor/EPA ID: CAD008255754
Site Code: 400349
Nat Priority List:
Acres:
Special Program:
Funding:
Assembly District: 61
Senate District: 31
School District:
APN:
Cleanup Status:
Cleanup Oversight Agencies:
Site Type: CLOSED - PERMIT AUTHORITY: RCRA
Office:
Past Use that Caused Contam:
Potential Media Affected:

Permit Renewal Lead:
Project Manager:
Supervisor:
Public Partici Spclst:
Census Tract: 6065042209
County: RIVERSIDE
Latitude: 34.000379
Longitude: -117.33695

Envirostor ID: CAD008255754
Status: CLOSED
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=CAD008255754

Program Type: HAZ WASTE - RCRA
CalEnviroScrnScore: 96-100%

Permit Units - Completed Activities

Date: 11/26/1980
Event Description: NEW OPERATING PERMIT - APPLICATION PART A RECEIVED

Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 8/19/1983
Event Description: NEW OPERATING PERMIT - FINAL PERMIT
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 8/19/1983
Event Description: NEW OPERATING PERMIT - FINAL PERMIT (EFFECTIVE)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 8/19/1988
Event Description: NEW OPERATING PERMIT - FINAL PERMIT (EXPIRES)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 6/1/1983
Event Description: NEW OPERATING PERMIT - PUBLIC COMMENT (BEGIN)
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 6/6/1983
Event Description: NEW OPERATING PERMIT - TECHNICAL COMPLETE LETTER
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Date: 4/13/1983
Event Description: NEW OPERATING PERMIT - APPLICATION PART B RECEIVED
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:
Unit Link:

Units Undergoing Closure

Date: 1/14/1994
Event Description: CLOSURE FINAL - RECEIVE CLOSURE CERTIFICATION
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:

Date: 2/2/1994
Event Description: CLOSURE FINAL - ISSUE CLOSURE VERIFICATION
Unit: CONTAIN1 - SOLVENT WASTE STORAGE UNIT
Doc Link:

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45 | **10 of 10** | **SSW** | **0.34 / 1,788.83** | **932.00 / -9** | **BOURNS INC**
1200 COLUMBIA AVE
RIVERSIDE CA 92507 | **SEMS ARCHIVE**

Site ID: 0900365
EPA ID: CAD008255754
Superfund Alt Agmt: No
Federal Facility: No
FF Docket: No
NPL: Not on the NPL
Non NPL Status: Deferred to RCRA (Subtitle C)

FIPS Code: 06065
Cong District: 36
Region: 09
County: RIVERSIDE

Action Information

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Operable Units:	00	**Start Actual:**	04/01/1991
Action Code:	DS	**Finish Actual:**	04/01/1991
Action Name:	DISCVRY	**Qual:**	
SEQ:	1	**Curr Action Lead:**	EPA Perf
Operable Units:	00	**Start Actual:**	
Action Code:	PA	**Finish Actual:**	08/20/1991
Action Name:	PA	**Qual:**	D
SEQ:	1	**Curr Action Lead:**	EPA Perf
Operable Units:	00	**Start Actual:**	
Action Code:	VS	**Finish Actual:**	01/23/1996
Action Name:	ARCH SITE	**Qual:**	
SEQ:	1	**Curr Action Lead:**	EPA Perf In-Hse

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46 **1 of 1** **SE** **0.34 / 1,800.53** **970.71 / 30**

AC HOFFMAN ENGINEERING
902 COLUMBIA AVE
RIVERSIDE CA 92507

ENVIROSTOR

Estor/EPA ID:	71003801	**Assembly District:**	61
Site Code:		**Senate District:**	31
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	NONE SPECIFIED	**Public Partici Spclst:**	
Census Tract:	6065042209	**Project Manager:**	
Site Type:	TIERED PERMIT	**County:**	RIVERSIDE
Address Description:	902 COLUMBIA AVE	**Latitude:**	34.000449
Office:	CLEANUP CYPRESS	**Longitude:**	-117.331798
Special Program:		**Acres:**	NONE SPECIFIED
Funding:		**Supervisor:**	

Cleanup Status: INACTIVE - NEEDS EVALUATION AS OF
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Site History:

Potential Contamin of Concern:

NONE SPECIFIED

Status: INACTIVE - NEEDS EVALUATION
Program Type: TIERED PERMIT
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=71003801

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47 **1 of 1** **E** **0.36 / 1,903.16** **1,008.54 / 68**

AMAZON PAINT
779 PALMYRITA AVE
RIVERSIDE CA 92507

C&D
DEBRIS RECY

County: RIVERSIDE

Activity Type: PAINT RECYCLER/COLLECTOR
Phone No: (951) 588-0206

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48 **1 of 2** **WNW** **0.42 / 2,240.59** **896.51 / -44**

Johnson Machinery
656 E La Cadena Dr
Riverside CA

LOP
RIVERSIDE

Site ID:	921019	**Closed Code:**	Y
Status Code:	9	**Closed Desc:**	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	**Employee:**	Boltinghous-LOP
Case Type Code:	A		
Case Type Desc:	AN AQUIFER USED FOR DRINKING WATER SUPPLY HAS BEEN CONTAMINATED		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
48	2 of 2	WNW	0.42 / 2,240.59	896.51 / -44	JOHNSON MACHINERY 656 E LA CADENA DR RIVERSIDE CA 92501	LUST

Global ID: T0606500137
Status: COMPLETED - CASE CLOSED
Status Date: 1997-10-23 00:00:00
Case Type: LUST CLEANUP SITE
Date Source: LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download

County: RIVERSIDE
Latitude: 34.0088118264964
Longitude: -117.345220657533

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No: 083301259T
Local Case No: 921019
Begin Date: 10/15/1992
Lead Agency: RIVERSIDE COUNTY LOP
Local Agency: RIVERSIDE COUNTY LOP
CUF Case: YES
CalEnvScreen Score: 91-95%
EPA Region: 9
Qty Rlsd Gallons:
Potential Media of Concern: Aquifer used for drinking water supply
How Discovered Description:
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Coordinate Source: Google Map Move
Discharge Cause: Unknown
Discharge Source: Tank
File Location: Local Agency Warehouse
Site History:

Potential COC: Gasoline
How Discovered: Tank Closure
Stop Method: Close and Remove Tank
Stop Description:
Case Worker: SCB
Military DoD Site: No
Leak Reported Dt: 1992-11-04 00:00:00
No Further Action Dt: 1997-10-23 00:00:00

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 10/23/1997
Action: Closure/No Further Action Letter - #RivCo Closure

Action Type: ENFORCEMENT
Date : 10/22/1997
Action: File review - #RCDEH Upload Site File 5/19/2015

Action Type: Other
Date : 11/4/1992
Action: Leak Reported

Action Type: Other
Date : 10/15/1992
Action: Leak Discovery

Action Type: Other
Date : 10/15/1992
Action: Leak Stopped

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email: sbolting@rivco.org
Phone No: 9519558980

Contact Type: Regional Board Caseworker
Contact Name: VALERIE JAHN-BULL
City: RIVERSIDE
Address: 3737 MAIN STREET, SUITE 500
Email: valerie.jahn-bull@waterboards.ca.gov
Phone No: 9517824903

Organization Name: SANTA ANA RWQCB (REGION 8)

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 10/23/1997

Status: Open - Remediation
Status Date: 8/15/1996

Status: Open - Remediation
Status Date: 2/1/1994

Status: Open - Site Assessment
Status Date: 9/13/1993

Status: Open - Site Assessment
Status Date: 11/23/1992

Status: Open - Site Assessment
Status Date: 11/4/1992

Status: Open - Site Assessment
Status Date: 10/15/1992

Status: Open - Case Begin Date
Status Date: 10/15/1992

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name: JOHNSON MACHINERY
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Project Status:
WDR Place Type:
WDR File:
WDR Order:
CUF Priority Assig: C
CUF Amount Paid: $88,810
Potential COC: GASOLINE
Facility Type:
Composting Method:
Address: 656 E LA CADENA DR
City: RIVERSIDE
Zip: 92501
County: RIVERSIDE
CUF Claim: 7209
File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500137
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 10/23/1997
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500137&tabname=regulatoryhistory
Potential Media of Concern: AQUIFER USED FOR DRINKING WATER SUPPLY
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management: NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use:
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 921019
CASEWORKER: SHARON BOLTINGHOUSE
SANTA ANA RWQCB (REGION 8) - CASE #: 083301259T
CASEWORKER: VALERIE JAHN-BULL
Gndwater Monitoring Freque:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed

Date : 10/23/1997

Status: Open - Remediation
Date : 8/15/1996

Status: Open - Remediation
Date : 2/1/1994

Status: Open - Site Assessment
Date : 9/13/1993

Status: Open - Site Assessment
Date : 11/23/1992

Status: Open - Site Assessment
Date : 11/4/1992

Status: Open - Case Begin Date
Date : 10/15/1992

Status: Open - Site Assessment
Date : 10/15/1992

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 10/23/1997
Received Issue Date: 10/23/1997
Action: Closure/No Further Action Letter - #RivCo Closure
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500137&enforcement_id=5983716&temptable=ENFORCEMENT
Title Description Comments:

RivCo Site Closure

Action Type: Other Regulatory Actions
Action Date: 10/22/1997
Received Issue Date: 10/22/1997
Action: File review - #RCDEH Upload Site File 5/19/2015
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500137&enforcement_id=6052980&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 5/29/2015

Action Type: Leak Action
Action Date: 10/15/1992
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 11/4/1992
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 10/15/1992
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 10/23/1997
Type: CLOSURE/NO FURTHER ACTION LETTER
Title: RIVCO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500137&enforcement_id=5983716
Size :
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 10/22/1997
Type: FILE REVIEW
Title: RCDEH UPLOAD SITE FILE 5/29/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500137&enforcement_id=6052980
Size :
Submitted By: LINDA SHURLOW (REGULATOR)
Submitted:

49	1 of 1	SE	0.44 / 2,304.55	989.09 / 48	**Land Jet Motor Carriers Inc** **1280 NORTHGATE ST #6** **RIVERSIDE CA 92503**	**DELISTED HAZ**

Siteid: 179396
Latitude: 34.000310
Longitude: -117.331030
Original Source: CHAZ
Record Date: 22-MAR-2018

50	1 of 1	E	0.44 / 2,327.71	1,021.37 / 80	**Mackie International Incorporated** **719 PALMYRITA AVE** **RIVERSIDE CA 92507**	**DELISTED HAZ**

Siteid: 173664
Latitude: 34.005432
Longitude: -117.326576
Original Source: CHAZ
Record Date: 22-MAR-2018

51	1 of 1	NW	0.46 / 2,412.45	885.30 / -56	**CA**	**PFAS GW**

Well ID: 3310031-015
Latitude: 34.011675
Longitude: -117.342818
Data Source(s): Perfluorooctanoic Acid; 4,8-Dioxa-3H-perfluorononanoic acid; Perfluorobutanesulfonic acid; Perfluorododecanoic acid; Perfluorohexanoic acid; Perfluoroheptanoic acid; Perfluorohexanesulfonic acid; Perfluorononanoic acid; Perfluorooctadecanoic acid; Perfluorotetradecanoic acid; Perfluorotridecanoic acid; Perfluoroundecanoic acid

Perfluorooctanoic Acid

Chemical: PFOA
Results: 13
Date : 07/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorooctanoic Acid

Chemical: PFOA
Results: 13
RL: UNK
Top of Screen (ft):

Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	10	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	11	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	13	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	64	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.8	**Top of Screen (ft):**	
Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS

Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	7.5	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	9.6	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	6	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	9	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL

Well Depth (ft):

Perfluorobutanesulfonic acid

Chemical: PFBSA
Results: 8.5
Date : 01/15/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 04/21/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 07/09/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.8
Date : 01/15/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 10/24/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 08/15/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorohexanoic acid

Chemical:	PFHA	***RL:***	UNK
Results:	8.6	***Top of Screen (ft):***	
Date :	01/15/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	***RL:***	UNK
Results:	8.5	***Top of Screen (ft):***	
Date :	04/21/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	***RL:***	UNK
Results:	8.8	***Top of Screen (ft):***	
Date :	07/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	***RL:***	UNK
Results:	5.7	***Top of Screen (ft):***	
Date :	08/15/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	***RL:***	UNK
Results:	6.1	***Top of Screen (ft):***	
Date :	10/24/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	***RL:***	UNK
Results:	3.2	***Top of Screen (ft):***	
Date :	10/24/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-015
Well Type:	MUNICIPAL	***Other Names:***	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical: PFHPA
Results: 4.3
Date : 04/21/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluoroheptanoic acid

Chemical: PFHPA
Results: 4.3
Date : 01/15/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluoroheptanoic acid

Chemical: PFHPA
Results: 3.1
Date : 08/15/2019
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluoroheptanoic acid

Chemical: PFHPA
Results: 4.2
Date : 07/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorohexanesulfonic acid

Chemical: PFHXSA
Results: 12
Date : 07/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorohexanesulfonic acid

Chemical: PFHXSA
Results: 12
Date : 04/21/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorohexanesulfonic acid

Chemical: PFHXSA
RL: UNK

Results:	8.3	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	8.3	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	12	**Top of Screen (ft):**	
Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorononanoic acid

Chemical:	PFNA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorononanoic acid

Chemical:	PFNA	**RL:**	UNK
Results:	1.9	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorononanoic acid

Chemical:	PFNA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorononanoic acid

Chemical:	PFNA	**RL:**	UNK
Results:	1.8	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	

Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorononanoic acid

Chemical:	PFNA	**RL:**	UNK
Results:	1.9	**Top of Screen (ft):**	
Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	08/15/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	**RL:**	UNK
Results:	1.8	**Top of Screen (ft):**	
Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015

Well Type: MUNICIPAL
Well Depth (ft):
Other Names: ELECTRIC STREET WELL

Perfluorotetradecanoic acid

Chemical: PFTEDA
Results: 1.8
Date : 01/15/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotetradecanoic acid

Chemical: PFTEDA
Results: 1.7
Date : 08/15/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotetradecanoic acid

Chemical: PFTEDA
Results: 1.7
Date : 07/09/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotetradecanoic acid

Chemical: PFTEDA
Results: 1.7
Date : 10/24/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotetradecanoic acid

Chemical: PFTEDA
Results: 1.7
Date : 04/21/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031 015
Other Names: ELECTRIC STREET WELL

Perfluorotridecanoic acid

Chemical: PFTRIDA
Results: 1.7
Date : 08/15/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotridecanoic acid

Chemical: PFTRIDA
Results: 1.7
Date : 07/09/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotridecanoic acid

Chemical: PFTRIDA
Results: 1.7
Date : 10/24/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotridecanoic acid

Chemical: PFTRIDA
Results: 1.8
Date : 01/15/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluorotridecanoic acid

Chemical: PFTRIDA
Results: 1.7
Date : 04/21/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluoroundecanoic acid

Chemical: PFUNDCA
Results: 1.7
Date : 08/15/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Perfluoroundecanoic acid

Chemical: PFUNDCA
Results: 1.7
Date : 07/09/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):

RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-015
Other Names: ELECTRIC STREET WELL

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.8	**Top of Screen (ft):**	
Date :	01/15/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	10/24/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/21/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-015
Well Type:	MUNICIPAL	**Other Names:**	ELECTRIC STREET WELL
Well Depth (ft):			

---

52 **1 of 2** **W** **0.50 / 2,637.66** **884.33 / -57** ***Johnson Machinery***
800 E La Cadena Dr
Riverside CA ***LOP RIVERSIDE***

Site ID:	94715	**Closed Code:**	Y
Status Code:	9	**Closed Desc:**	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	**Employee:**	Boltinghous-LOP
Case Type Code:	S		
Case Type Desc:	SOIL ONLY IS IMPACTED		

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52 **2 of 2** **W** **0.50 / 2,637.66** **884.33 / -57** ***JOHNSON MACHINERY***
800 E LA CADENA DR
RIVERSIDE CA 92501 ***LUST***

Global ID:	T0606500424	**County:**	RIVERSIDE
Status:	COMPLETED - CASE CLOSED	**Latitude:**	34.0087813396113
Status Date:	1994-11-17 00:00:00	**Longitude:**	-117.345212148202
Case Type:	LUST CLEANUP SITE		
Date Source:	LUST Cleanup Sites & Military UST Site from GeoTracker Project Search Results Export; LUST Cleanup Sites & Military UST Site from GeoTracker Cleanup Sites Data Download		

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Facilities Detail

RB Case No:	083302658T	**Potential COC:**	Diesel
Local Case No:	94715	**How Discovered:**	Tank Closure
Begin Date:	6/17/1994	**Stop Method:**	Close and Remove Tank
Lead Agency:	RIVERSIDE COUNTY LOP	**Stop Description:**	
Local Agency:	RIVERSIDE COUNTY LOP	**Case Worker:**	SCB
CUF Case:	YES	**Military DoD Site:**	No
CalEnvScreen Score:	91-95%	**Leak Reported Dt:**	1994-08-23 00:00:00
EPA Region:	9	**No Further Action Dt:**	1994-11-17 00:00:00
Qty Rlsd Gallons:			

Potential Media of Concern: Soil
How Discovered Description:
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
DWR GW Subbasin Name: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Disadvantaged Community:
Coordinate Source: Google Map Move
Discharge Cause: Unknown
Discharge Source: Other
File Location: Local Agency Warehouse
Site History:

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Activity

Action Type: ENFORCEMENT
Date : 11/17/1994
Action: Closure/No Further Action Letter - #RCDEH111794

Action Type: ENFORCEMENT
Date : 11/16/1994
Action: File review - #RCDEH Upload Site File 6/4/2015

Action Type: REMEDIATION
Date : 9/12/1994
Action: Other (Use Description Field)

Action Type: Other
Date : 8/23/1994
Action: Leak Reported

Action Type: Other
Date : 6/17/1994
Action: Leak Discovery

Action Type: Other
Date : 6/17/1994
Action: Leak Stopped

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
City: RIVERSIDE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
Email: sbolting@rivco.org
Phone No: 9519558980

Contact Type: Regional Board Caseworker
Contact Name: VALERIE JAHN-BULL
City: RIVERSIDE
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
Email: valerie.jahn-bull@waterboards.ca.gov
Phone No: 9517824903

LUST Cleanup Sites from GeoTracker Cleanup Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 11/17/1994

Status: Open - Remediation
Status Date: 9/12/1994

Status: Open - Site Assessment
Status Date: 8/24/1994

Status: Open - Site Assessment
Status Date: 8/23/1994

Status: Open - Case Begin Date
Status Date: 6/17/1994

LUST Sites from GeoTracker Search - Regulatory Profile

Site Facility Name:	JOHNSON MACHINERY	***Potential COC:***	DIESEL
Site Facility Type:	LUST CLEANUP SITE	***Facility Type:***	
Cleanup Status:	COMPLETED - CASE CLOSED	***Composting Method:***	
Project Status:		***Address:***	800 E LA CADENA DR
WDR Place Type:		***City:***	RIVERSIDE
WDR File:		***Zip:***	92501
WDR Order:		***County:***	RIVERSIDE
CUF Priority Assig:	C	***CUF Claim:***	7185
CUF Amount Paid:	$12,884		

File Location: LOCAL AGENCY WAREHOUSE
Designated Beneficial Use: MUN, AGR, IND, PROC
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500424
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 11/17/1994
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500424&tabname=regulatoryhistory
Potential Media of Concern: SOIL
User Defined Beneficial Use:
DWR GW Sub Basin: Upper Santa Ana Valley - Riverside-Arlington (8-002.03)
Calwater Watershed Name: Santa Ana River - Middle Santa Ana River - Riverside (801.27)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 94715
CASEWORKER: SHARON BOLTINGHOUSE
SANTA ANA RWQCB (REGION 8) - CASE #: 083302658T
CASEWORKER: VALERIE JAHN-BULL
Gndwater Monitoring Freque:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply
Site History:

No site history available

LUST Sites from GeoTracker Search - Cleanup Status History

Status: Completed - Case Closed
Date : 11/17/1994

Status: Open - Remediation
Date : 9/12/1994

Status: Open - Site Assessment
Date : 8/24/1994

Status: Open - Site Assessment
Date : 8/23/1994

Status: Open - Case Begin Date
Date : 6/17/1994

Sites from GeoTracker Search - Cleanup Action Report

Action Type:	OTHER (USE DESCRIPTION FIELD)	***Begin Date:***	9/12/1994
Phase:	Soil	***End Date:***	11/8/1994

Contaminant Mass Removed:
Description: CONTAMINATED SOIL WAS TRANSPORTED TO TPS IN ADELANTO, CA.

Sites from GeoTracker Search - Regulatory Activities

Action Type: Other Regulatory Actions
Action Date: 11/17/1994
Received Issue Date: 11/17/1994

Action: Closure/No Further Action Letter - #RCDEH111794
Doc Link:
Title Description Comments:

Riv Co LOP issued NFA letter 11/17/1994

Action Type: Other Regulatory Actions
Action Date: 11/16/1994
Received Issue Date: 11/16/1994
Action: File review - #RCDEH Upload Site File 6/4/2015
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500424&enforcement_id=6052976&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 6/4/2015

Action Type: Cleanup Action
Action Date: 9/12/1994
Received Issue Date:
Action: Other (Use Description Field)
Doc Link:
Title Description Comments:

CONTAMINATED SOIL WAS TRANSPORTED TO TPS IN ADELANTO, CA.

Action Type: Leak Action
Action Date: 6/17/1994
Received Issue Date:
Action: Leak Discovery
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 8/23/1994
Received Issue Date:
Action: Leak Reported
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action Date: 6/17/1994
Received Issue Date:
Action: Leak Stopped
Doc Link:
Title Description Comments:

Sites from GeoTracker Search - Documents

Document Type: Site Documents
Document Date: 6/30/2008
Type: REPORT
Title: CASE CLOSURE SUMMARY
Title Link: https://geotracker.waterboards.ca.gov/site_documents/3825474381/Case%20Closure%20Summary%2Epdf
Size : 170 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 6/30/2008
Type: LETTER
Title: UST REMOVAL REPORT #2
Title Link: https://geotracker.waterboards.ca.gov/site_documents/9920551896/UST%20Removal%20Report%20%232%2Epdf
Size : 110 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Submitted:

Document Type: Site Documents
Document Date: 6/30/2008
Size : 93 KB
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Type: REPORT ***Submitted:***
Title: UST REMOVAL REPORT #1
Title Link: https://geotracker.waterboards.ca.gov/site_documents/7365131974/UST%20Removal%20Report%20%231%2Epdf

Document Type: Site Documents ***Size :*** 45 KB
Document Date: 6/30/2008 ***Submitted By:*** RIVERSIDE COUNTY LOP (REGULATOR)
Type: LETTER ***Submitted:***
Title: CLOSURE LETTER
Title Link: https://geotracker.waterboards.ca.gov/site_documents/8138020157/Closure%20Letter%2Epdf

Document Type: Site Documents ***Size :*** 38 KB
Document Date: 6/30/2008 ***Submitted By:*** RIVERSIDE COUNTY LOP (REGULATOR)
Type: REPORT ***Submitted:***
Title: SITE DATA SHEET
Title Link: https://geotracker.waterboards.ca.gov/site_documents/2671360611/Site%20Data%20Sheet%2Epdf

Document Type: Site Documents ***Size :*** 93 KB
Document Date: 6/30/2008 ***Submitted By:*** RIVERSIDE COUNTY LOP (REGULATOR)
Type: REPORT ***Submitted:***
Title: URR
Title Link: https://geotracker.waterboards.ca.gov/site_documents/7837132096/URR%2Epdf

Document Type: Site Documents ***Size :***
Document Date: 11/16/1994 ***Submitted By:*** LINDA SHURLOW (REGULATOR)
Type: FILE REVIEW ***Submitted:***
Title: RCDEH UPLOAD SITE FILE 6/4/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500424&enforcement_id=6052976

53	1 of 1	W	0.50 / 2,640.32	883.39 / -58	CA	PFAS GW

Well ID: 3310031-074
Latitude: 34.006491
Longitude: -117.347608
Data Source(s): Perfluorooctanoic Acid; 4,8-Dioxa-3H-perfluorononanoic acid; Perfluorobutanesulfonic acid; Perfluorododecanoic acid; Perfluorohexanoic acid; Perfluoroheptanoic acid; Perfluorohexanesulfonic acid; Perfluorononanoic acid; Perfluorooctadecanoic acid; Perfluorotetradecanoic acid; Perfluorotridecanoic acid; Perfluoroundecanoic acid

Perfluorooctanoic Acid

Chemical: PFOA ***RL:*** UNK
Results: 12 ***Top of Screen (ft):***
Date : 07/09/2020 ***Screen Length (ft):***
Units: NG/L ***Source:*** DHS
Qualifer: ***Source Name:*** 3310031-074
Well Type: MUNICIPAL ***Other Names:*** PALMYRITA WELL 02
Well Depth (ft):

Perfluorooctanoic Acid

Chemical: PFOA ***RL:*** UNK
Results: 2 ***Top of Screen (ft):***
Date : 04/02/2020 ***Screen Length (ft):***
Units: NG/L ***Source:*** DHS
Qualifer: < ***Source Name:*** 3310031-074
Well Type: MUNICIPAL ***Other Names:*** PALMYRITA WELL 02
Well Depth (ft):

Perfluorooctanoic Acid

Chemical: PFOA ***RL:*** UNK
Results: 11 ***Top of Screen (ft):***
Date : 01/09/2020 ***Screen Length (ft):***

Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	11	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	9.3	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorooctanoic Acid

Chemical:	PFOA	**RL:**	UNK
Results:	12	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	01/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	10	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074

Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

4,8-Dioxa-3H-perfluorononanoic acid

Chemical:	ADONA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	12	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031 074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	**RL:**	UNK
Results:	9.8	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	***RL:***	UNK
Results:	8.3	***Top of Screen (ft):***	
Date :	10/03/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	***RL:***	UNK
Results:	11	***Top of Screen (ft):***	
Date :	07/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorobutanesulfonic acid

Chemical:	PFBSA	***RL:***	UNK
Results:	8.9	***Top of Screen (ft):***	
Date :	01/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:		***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorododecanoic acid

Chemical:	PFDOA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	08/09/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorododecanoic acid

Chemical:	PFDOA	***RL:***	UNK
Results:	2	***Top of Screen (ft):***	
Date :	10/03/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorododecanoic acid

Chemical:	PFDOA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	07/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 04/02/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorododecanoic acid

Chemical: PFDOA
Results: 2
Date : 04/02/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorododecanoic acid

Chemical: PFDOA
Results: 1.7
Date : 01/09/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanoic acid

Chemical: PFHA
Results: 13
Date : 01/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanoic acid

Chemical: PFHA
Results: 14
Date : 07/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanoic acid

Chemical: PFHA
Results: 11
Date : 08/09/2019
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanoic acid

Chemical:	PFHA	**RL:**	UNK
Results:	10	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	**RL:**	UNK
Results:	12	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanoic acid

Chemical:	PFHA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	5.1	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	5	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	4	**Top of Screen (ft):**	

Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	4.5	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroheptanoic acid

Chemical:	PFHPA	**RL:**	UNK
Results:	4.9	**Top of Screen (ft):**	
Date :	01/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	17	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	11	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:		**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorohexanesulfonic acid

Chemical:	PFHXSA	**RL:**	UNK
Results:	15	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS

Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanesulfonic acid

Chemical: PFHXSA
Results: 16
Date : 04/02/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorohexanesulfonic acid

Chemical: PFHXSA
Results: 13
Date : 01/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorononanoic acid

Chemical: PFNA
Results: 2
Date : 04/02/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorononanoic acid

Chemical: PFNA
Results: 2
Date : 10/03/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorononanoic acid

Chemical: PFNA
Results: 1.9
Date : 07/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorononanoic acid

Chemical: PFNA
Results: 2
Date : 08/09/2019
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Well Depth (ft):

Perfluorononanoic acid

Chemical: PFNA
Results: 1.9
Date : 01/09/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorononanoic acid

Chemical: PFNA
Results: 1.9
Date : 04/02/2020
Units: NG/L
Qualifer:
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorooctadecanoic acid

Chemical: PFNDCA
Results: 2
Date : 04/02/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorooctadecanoic acid

Chemical: PFNDCA
Results: 1.7
Date : 08/09/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorooctadecanoic acid

Chemical: PFNDCA
Results: 1.7
Date : 04/02/2020
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorooctadecanoic acid

Chemical: PFNDCA
Results: 2
Date : 10/03/2019
Units: NG/L
Qualifer: <
Well Type: MUNICIPAL
Well Depth (ft):
RL: UNK
Top of Screen (ft):
Screen Length (ft):
Source: DHS
Source Name: 3310031-074
Other Names: PALMYRITA WELL 02

Perfluorooctadecanoic acid

Chemical:	PFNDCA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	01/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorooctadecanoic acid

Chemical:	PFNDCA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	07/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	***RL:***	UNK
Results:	2	***Top of Screen (ft):***	
Date :	10/03/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	07/09/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	***RL:***	UNK
Results:	2	***Top of Screen (ft):***	
Date :	04/02/2020	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	***RL:***	UNK
Results:	1.7	***Top of Screen (ft):***	
Date :	08/09/2019	***Screen Length (ft):***	
Units:	NG/L	***Source:***	DHS
Qualifer:	<	***Source Name:***	3310031-074
Well Type:	MUNICIPAL	***Other Names:***	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	01/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotetradecanoic acid

Chemical:	PFTEDA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	01/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK

Results:	1.7	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluorotridecanoic acid

Chemical:	PFTRIDA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	10/03/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	07/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	01/09/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	08/09/2019	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	2	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

Perfluoroundecanoic acid

Chemical:	PFUNDCA	**RL:**	UNK
Results:	1.7	**Top of Screen (ft):**	
Date :	04/02/2020	**Screen Length (ft):**	
Units:	NG/L	**Source:**	DHS
Qualifer:	<	**Source Name:**	3310031-074
Well Type:	MUNICIPAL	**Other Names:**	PALMYRITA WELL 02
Well Depth (ft):			

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54 **1 of 1** **SW** **0.61 / 3,209.78** **898.90 / -42** **MCKESSON CHEMICAL COMPANY**
1575 MARLBOROUGH
RIVERSIDE CA 92507
ENVIROSTOR

Estor/EPA ID:	60000207	**Assembly District:**	61
Site Code:		**Senate District:**	31
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	NONE SPECIFIED	**Public Partici Spclst:**	
Census Tract:	6065042209	**Project Manager:**	
Site Type:	EVALUATION	**County:**	RIVERSIDE
Address Description:	1575 MARLBOROUGH	**Latitude:**	33.998243
Office:	CLEANUP CYPRESS	**Longitude:**	-117.345763
Special Program:	EPA - PASI	**Acres:**	2.5 ACRES
Funding:	NOT APPLICABLE	**Supervisor:**	* GREG HOLMES

Cleanup Status: INACTIVE - NEEDS EVALUATION AS OF 3/6/2006
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY US EPA
School District:
Past Use that Caused Contam: MANUFACTURING - CHEMICALS
Potential Media Affected: NONE SPECIFIED
Potential Contamin of Concern:

NONE SPECIFIED

Site History:

Status: INACTIVE - NEEDS EVALUATION
Program Type: EVALUATION
CalEnviroScreen Score: 96-100%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000207

Completed Activities

Title: Site Screening Assessment
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000207&doc_id=6010743
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 4/12/2006
Comments:

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55 **1 of 1** **NNE** **0.93 / 4,916.70** **953.61 / 13** **K/J PLATING, INC.**
21750 MAIN STREET
GRAND TERRACE CA 92324
ENVIROSTOR

Estor/EPA ID:	71002735	**Assembly District:**	47
Site Code:	400703	**Senate District:**	20

Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	1167-151-42-0000	**Public Partici Spclst:**	
Census Tract:	6071007106	**Project Manager:**	IRENA EDWARDS
Site Type:	TIERED PERMIT	**County:**	SAN BERNARDINO
Address Description:	21750 MAIN STREET	**Latitude:**	34.0198729
Office:	CLEANUP CYPRESS	**Longitude:**	-117.330596
Special Program:		**Acres:**	1.5 ACRES
Funding:		**Supervisor:**	MANNY ALONZO

Cleanup Status: NO FURTHER ACTION AS OF 6/3/2009
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: METAL FINISHING, METAL PLATING - CHROME, METAL PLATING - OTHER
Potential Media Affected: OTHER GROUNDWATER AFFECTED (USES OTHER THAN DRINKING WATER), SOIL
Potential Contamin of Concern:

METALS

Site History:

K & J Plating, Inc. bought the facility from Riverside Plating. Riverside Plating conducted hard and regular anodizing operations, cadmium plating, zinc plating, chrome plating and black oxide processing on this property from approximately 1966 to 1973. K & J Plating continued the decorative chrome process, the cadmium plating process and the black oxide process until 1999 when all operations ceased. In 1985 soil sampling was performed at the site and revealed elevated levels of heavy metals in soil. Then a 1990 groundwater investigation revealed elevated levels of chromium, cadmium, and zinc in groundwater. In 1993, a concrete clarifier and the contaminated soil surrounding the area were excavated, removed, and backfilled. Also, contaminated soil to the northwest and northeast of the waste water treatment area was excavated, removed, disposed offsite, and backfilled. Under the Regional Water Quality Control Board (RWQCB) Santa Ana Region approximately 500 tons of contaminated soil was removed from the site in 1993. Additional 1.3 tons of contaminated soil were excavated in 1997. According to the field sampling report, dated 1997, by Advanced Environmental, Inc., elevated levels for nickel and total chromium were detected in the groundwater below the site. In November 2000, a 500 gallon steel underground storage tank (UST) was encountered at the site, tested and removed under the oversight of the San Bernardino County Fire Department. All soil tests taken around and below the UST resulted in non-detect concentrations for petroleum hydrocarbons and a full spectrum of volatile organic compounds (VOCs). Advanced Environmental, Inc. letter, dated December 22, 2000, requested site closure for the underground storage tank portion of the Site. On August 27, 1999 K/J Plating, Inc. signed a Corrective Action Consent Agreement with DTSC to conduct further facility investigation. On February 2, 2001, groundwater was tested again and revealed the presence of nickel that exceeded the Maximum Contaminant Level (MCL) for drinking water. Aromatic hydrocarbons and several chlorinated solvents were also found at low levels, but none exceeded the MCLs. K&N Engineering, Inc. entered into a Consultative Services Agreement with the Department of Toxic Substances Control (DTSC), to complete investigation and remediation of the property. Soil characterization, human health risk assessment (HHRA), and chemical transport modeling to assess potential future hexavalent chromium impacts to groundwater quality were completed in 2010. HHRA determined the residual metal impacted soil does not pose significant health risks to future on-site commercial or industrial receptors. The chemicals transport modeling report concluded that Site paving would eliminate downward migration of hexavalent chromium and other metals to groundwater by preventing water infiltration, and thus prevent groundwater quality degradation beneath the facility from the residual hexavalent chromium and other metals impacts. Based on the available groundwater data reviewed for well RN 7 between 2004 and 2009, chemical concentrations above the drinking water standards have not been detected in any of the groundwater samples. In 2011, DTSC circulated for public comment and subsequently approved a Removal Action Workplan that included construction of a concrete surface cover (cap) on the entire facility, operation and maintenance of the cap, groundwater monitoring, and restriction of future site redevelopment to commercial/industrial land uses. Construction of the cap and new groundwater monitoring system were completed in 2012. An LUC was filed with the San Bernardino County Assessor's Office in 2013. Groundwater Contamination: Nickel, Chromium, Cadmium Project Description: CACA Facility Comments: Closed, Facility files forwarded to Cleanup operations. CACA terminated with K/J Plating and replaced with a VCA signed by K&N Enterprises (see K&J Enterprises Envirostor ID

Status: NO FURTHER ACTION
Program Type: TIERED PERMIT
CalEnviroScreen Score: 61-65%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=71002735

Completed Activities

Title: Phase I inspection completed
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/2/1998
Comments:

Title: Acknowledgement of Satisfaction
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=71002735&enforcement_id=60257163
Area Name:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Area Link:
Sub Area:
Sub Area Link:
Document Type: Acknowledgement of Satisfaction
Date Completed: 6/3/2009
Comments: CACA terminated with K/J Plating and replaced with a VCA signed by K&N Enterprises.

Title: Consent Agreement Executed
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Consent Agreement
Date Completed: 8/27/1999
Comments:

Title: Corrective Action Consent Agreement
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Consent Agreement
Date Completed: 8/27/1999
Comments:

Title: Further Investigation Completed
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Supplemental Site Investigation Report
Date Completed: 5/23/2003
Comments:

Title: Inspection - Phase I Verification
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase I Verification
Date Completed: 3/2/1998
Comments: Inspection report sent on 3/2/1998

56	1 of 1	NNE	0.93 / 4,916.78	953.61 / 13	**K & J ENTERPRISES** **21750 MAIN STREET** **GRAND TERRACE CA 92324**	ENVIROSTOR

Estor/EPA ID:	36340037	**Assembly District:**	47
Site Code:	401477	**Senate District:**	20
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	116715142	**Public Partici Spclst:**	
Census Tract:	6071007106	**Project Manager:**	IRENA EDWARDS
Site Type:	VOLUNTARY CLEANUP	**County:**	SAN BERNARDINO
Address Description:	21750 MAIN STREET	**Latitude:**	34.0198730541427
Office:	CLEANUP CYPRESS	**Longitude:**	-117.33059557022
Special Program:	VOLUNTARY CLEANUP PROGRAM	**Acres:**	1.5 ACRES
Funding:	SITE PROPONENT	**Supervisor:**	MARYAM TASNIF-ABBASI

Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE AS OF 5/10/2013
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY SAN BERNARDINO COUNTY
School District:
Past Use that Caused Contam: METAL PLATING - CHROME, METAL PLATING - OTHER
Potential Media Affected: UNDER INVESTIGATION
Potential Contamin of Concern:

ACID SOLUTION 2>PH WITH METALS CADMIUM AND COMPOUNDS CHROMIUM VI CYANIDE (FREE) NICKEL

Site History:

1. Site Description - The approximately 1.5-acre site is located near a rail road in an industrial/commercial zone in Grand Terrace. K & J Plating, Inc. bought the facility from Riverside Plating. Riverside Plating conducted hard and regular anodizing operations, cadmium plating, zinc plating, chrome plating and black oxide processing on this property from approximately 1966 to 1973. K & J Plating continued the decorative chrome process, the cadmium plating process and the black oxide process until 1999 when all operations ceased. 2. Contamination - Metals in soil and groundwater 3. Work Done to Date - In 1985 soil sampling was performed at the site and revealed elevated levels of heavy metals in soil. In 1990 groundwater investigation revealed elevated levels of chromium, cadmium, and zinc in groundwater. In 1993, under the Regional Water Quality Control Board (RWQCB) Santa Ana Region, 500 tons of contaminated soil to the northwest and northeast of the waste water treatment area, were excavated, removed, disposed offsite, and backfilled. Additionally a concrete clarifier and 1.3 tons of contaminated soil were excavated in 1997. In November 2000, a 500 gallon steel underground storage tank (UST) was encountered at the site, tested and removed under the oversight of the San Bernardino County Fire Department. All soil tests taken around and below the UST resulted in non-detect concentrations for petroleum hydrocarbons and a full spectrum of volatile organic compounds (VOCs). Advanced Environmental, Inc. letter, dated December 22, 2000, recommended site closure for the underground storage tank portion of the Site. On August 27, 1999 K/J Plating, Inc. Signed a Corrective Action Consent Agreement with DTSC to conduct further facility investigation. On February 2, 2001, groundwater was tested again and revealed the presence of nickel that exceeded the Maximum Contaminant Level (MCL) for drinking water. Aromatic hydrocarbons and several chlorinated solvents were also found at low levels, but none exceeded the MCLs. K&N Engineering, Inc. entered into a Consultative Services Agreement with the DTSC, to complete investigation and remediation of the property. Soil characterization, human health risk assessment (HHRA), and chemical transport modeling to assess potential future hexavalent chromium impacts to groundwater quality were completed in 2010. HHRA determined the residual metal impacted soil does not pose significant health risks to future on-site commercial or industrial receptors. The chemicals transport modeling report concluded that site paving would eliminate downward migration of hexavalent chromium and other metals to groundwater by preventing water infiltration, and thus prevent groundwater quality degradation beneath the facility from the residual hexavalent chromium and other metals impacts. Based on the available groundwater data reviewed for well RN 7 between 2004 and 2009, chemical concentrations above the drinking water standards have not been detected in any of the groundwater samples. In 2011, DTSC circulated for public comment and subsequently approved a Removal Action Workplan that included construction of a concrete pavement on the entire facility, operation and maintenance of the pavemant, groundwater monitoring, and restriction of future site redevelopment to commercial/industrial land uses. Site pavement and new groundwater monitoring system were completed in 2012. A LUC was filed with the San Bernardino County Assessor's Office in 2013. 4. Current Status - Ongoing groundwater monitoring program and annual LUC monitoring oversite.

Status: CERTIFIED / OPERATION & MAINTENANCE
Program Type: VOLUNTARY CLEANUP
CalEnviroScreen Score: 61-65%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36340037

Completed Activities

Title: 1st 2017 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60422198
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 1/23/2018
Comments:

Title: 1st Quarterly 2021 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60487158
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 7/15/2021
Comments:

Title: 3d Quarterly 2020 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60485298
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 1/7/2021
Comments:

Title: 2019/2020 Cost Estimation Letter

Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60466546
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 11/19/2019
Comments: Completed

Title: 2d Quarter 2018
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60383280
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report
Date Completed: 9/12/2018
Comments:

Title: 2d Quarterly 2020 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60485296
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 9/24/2020
Comments:

Title: 4th Quarter 2018 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60447992
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 3/12/2019
Comments:

Title: CHRIS Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: *Correspondence - Received
Date Completed: 9/8/2011
Comments: Concured by Laura.

Title: Estimation Letter
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60448104
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 1/10/2019
Comments:

Title: First Quarter 2019 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60459861
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 5/29/2019
Comments:

Title: LUC Monitoring Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60485302
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 1/19/2021
Comments:

Title: Supplemental Site Investigation Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=6028819
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Workplan
Date Completed: 4/1/2010
Comments:

Title: Supplemetal Site Characterization Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60197984
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Report
Date Completed: 1/10/2011
Comments:

Title: LUC Monitoring Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60361180
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 1/8/2015
Comments: Completed

Title: LUC Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60447998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 1/29/2019
Comments:

Title: Letter dated February 7, 2018
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Correspondence
Date Completed: 3/16/2018
Comments: Completed

Title: Phase I Environmental Site Assessment Report dated December 2008
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=6023663
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 8/12/2009
Comments:

Title: Reimbursement Agreement #08-T3612 Amendment #5
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60312247
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Reimbursement Agreement
Date Completed: 11/20/2012
Comments:

Title: Response to DTSC Comments
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60302907
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Well Decommissioning Workplan
Date Completed: 7/12/2012
Comments:

Title: Semi-Annual Groundwater Monitoring Report December 2016
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60412362
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 1/11/2018
Comments: Completed

Title: 2021/2022 Annual Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60506557
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 12/8/2021
Comments:

Title: 2d Quarter 2019 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60461834
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 9/16/2019
Comments: No change, continue monitoring

Title: 2d Quarterly 2021 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60487160
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 10/7/2021
Comments:

Title: Comments for the RAW
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60285759
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: *Correspondence - Received
Date Completed: 1/19/2012

Comments:

Title: Eighth Semi-Annual Groundwater Monitoring Report Spring 2016
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60411802
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 8/18/2016
Comments: Completed

Title: Ground Water Monitoring Program Evaluation Workplan
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Workplan
Date Completed: 7/31/2019
Comments:

Title: Ground Water Monitoring Report Dec 2012
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60313287
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 1/14/2013
Comments:

Title: Public Notice
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60277649
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Public Notice
Date Completed: 9/8/2011
Comments:

Title: Removal Action Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60261851
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Removal Action Workplan
Date Completed: 1/20/2012
Comments:

Title: 1st Semi-Annual 2013 Groundwater Monitoring
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 4/30/2013
Comments: Completed

Title: Ground Water Monitoring Program Evaluation Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60463199
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report

Date Completed: 10/30/2019
Comments: K/J will submit the report including proposed well placement by November 12.

Title: Groundwater Monitoring Plan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60300655
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Plan
Date Completed: 6/27/2012
Comments:

Title: LUC Inspection and Groundwater Monitoring Letter-Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60426628
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 4/23/2018
Comments:

Title: LUC Inspection and Groundwater Monitoring Letter-Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60334065
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Land Use Restriction Monitoring Report
Date Completed: 1/8/2014
Comments: Completed

Title: Reimbursement Agreement Amendment 08-T3612 A-3
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60285412
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Reimbursement Agreement
Date Completed: 11/28/2011
Comments: Amendment #3 executed for time extension and additional funds.

Title: Site Visit
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60427049
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction - Site Inspection/Visit
Date Completed: 5/11/2017
Comments: Completed

Title: 2014/2015 Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60386557
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 11/20/2014
Comments:

Title: 3d Quarter 2018 Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60447990
Area Name:
Area Link:
Sub Area:
Sub Area Link:

Document Type: Monitoring Report
Date Completed: 1/11/2019
Comments:

Title: Annual 2012/2013 Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60312458
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 11/28/2012
Comments: Completed

Title: Cos Estimate Letter 2017/2018
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60426630
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 12/17/2017
Comments: Completed

Title: Letter from Mr. Danielson
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60289947
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: *Correspondence - Received
Date Completed: 1/19/2012
Comments:

Title: Removal Action Completion Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Removal Action Completion Report
Date Completed: 4/10/2013
Comments: Completed

Title: 2020/2021 Annual Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60487162
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 10/22/2020
Comments: Completed

Title: 3d Quarter 2019 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60461836
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Plan
Date Completed: 12/9/2019
Comments:

Title: 4d Quarter 2019 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60465707
Area Name:
Area Link:
Sub Area:

Sub Area Link:
Document Type: Monitoring Report
Date Completed: 3/4/2020
Comments:

Title: Estimation Letter
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60448105
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 1/19/2019
Comments: Completed

Title: Field oversight
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 5/1/2017
Comments: Completed

Title: LUC Monitoring Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60412049
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 1/12/2017
Comments:

Title: Preliminary Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 4/1/1985
Comments: FORMER OWNER: WILLIAM LEWIS ET AL(WINIFR V.LEWIS) P.O.BOX 110, COLTON, CA 92324. K&J IS A SUBSIDIARY OF K&N ENGINEERING. SOURCE ACT: RWQCB - NICKEL/CHROME PLATG CO TAX ASSESOR,RWQCB. SUBMIT TO EPA PRELIM ASSESS DONE CERCLA 104

Title: 2014 04 Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60360113
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report
Date Completed: 6/11/2014
Comments:

Title: 2017/2018 Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60438795
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 12/6/2017
Comments: Completed

Title: Annual Oversight Cost Estimate Letter
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60412078

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 1/19/2017
Comments:

Title: Annual Site Visit Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60357855
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction - Site Inspection/Visit
Date Completed: 4/15/2014
Comments: Completed

Title: Certification
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60317772
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Certification
Date Completed: 5/10/2013
Comments: Completed

Title: Community Profile
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60269871
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Community Profile
Date Completed: 9/8/2011
Comments:

Title: Draft Notice of Exemption
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60267846
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: CEQA - Notice of Exemption
Date Completed: 1/24/2012
Comments: Completed

Title: LUC
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60313431
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Deed/LUR Enforcement & Implementation Plan
Date Completed: 4/10/2013
Comments: Completed

Title: Reimbursement Agreement Amendment 08-T3612 A-1
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60188311
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Reimbursement Agreement
Date Completed: 2/18/2010
Comments:

Title: Site Reassessment

Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=6013791
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: PA/SI Reassessment
Date Completed: 4/10/2009
Comments: Reassessment completed by DTSC and approved by EPA

Title: 1st Quarter 2020 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60465709
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 7/21/2020
Comments: Completed

Title: 1st Semi-Annual 2013 Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60323678
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Technical Report
Date Completed: 6/12/2013
Comments: Completed

Title: 2019 Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60474364
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction - Site Inspection/Visit
Date Completed: 1/13/2020
Comments: Completed

Title: 4th Quarterly 2020 GW Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60485304
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Monitoring Report
Date Completed: 4/26/2021
Comments:

Title: Amended Reimbursement Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=60261864
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Reimbursement Agreement
Date Completed: 2/1/2011
Comments:

Title: Discovery
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Discovery
Date Completed: 1/25/1983
Comments: FACILITY IDENTIFIED ID VIA RWQCB INACTIVE FILES BOX#58 PLATING.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Title: Fact Sheet
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60270606
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fact Sheets
Date Completed: 9/8/2011
Comments:

Title: LUC Monitoring Report by Owner
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60399591
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Land Use Restriction Monitoring Report
Date Completed: 1/14/2016
Comments: Completed

Title: Reimbursement Agreement K&N Engineering
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&enforcement_id=6013907
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Reimbursement Agreement
Date Completed: 5/18/2009
Comments: Fully Executed.

Title: Sixs Semi-Annual Groundwater Monitoring Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36340037&doc_id=60392879
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Operation and Maintenance Report
Date Completed: 6/17/2015
Comments:

57	1 of 1	SSW	0.98 / 5,148.49	964.85 / 24	VALERION CORPORATION 2280 IOWA AVENUE RIVERSIDE CA 92507	ENVIROSTOR

Estor/EPA ID: 33280139
Site Code:
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6065042210
Site Type: * HISTORICAL
Address Description: 2280 IOWA AVENUE
Office: CLEANUP CYPRESS
Special Program:
Funding:
Assembly District: 61
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 33.9908333333333
Longitude: -117.339444444444
Acres: NONE SPECIFIED
Supervisor:
Cleanup Status: REFER: OTHER AGENCY AS OF 8/12/1988
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Potential Contamin of Concern:

METALS - OTHER INORGANIC SOLID WASTE UNSPECIFIED OIL CONTAINING WASTE UNSPECIFIED SLUDGE WASTE UNSPECIFIED SOLVENT MIXTURES

Site History:

Status: REFER: OTHER AGENCY
Program Type: HISTORICAL

CalEnviroScreen Score: 71-75%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33280139

Completed Activities

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 10/25/1994
Comments: CALSITES VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Title: Discovery
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Discovery
Date Completed: 3/22/1983
Comments: FACILITY IDENTIFIED ID FROM RWQCB COMPLAINTS 1980 FILE. CHEM BEING DISPOSED OF IN A PIT BEHIND PLANT. NOT KNOWN IF THE PIT IS LINED OR SPECIFIC CHEM USED. INSPECTOR REP: NO PROB EVIDENT AT SITE. COMPLAINT APPEARS TO BE UNFOUND.

Title: Site Screening
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Screening
Date Completed: 8/12/1988
Comments: SITE SCREENING DONE NFA UNDER CERCLA RECOMMENDED BY FIT NFA UNDER SITE MITIGATION

Title: Preliminary Assessment Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 6/1/1984
Comments: SOURCE ACT: T/C W/ E.SANTIMAW,GTE-VALERI (714)781-4382, 6/26/84 - MFG TUNGSTEN CARBIDE TOOLING. WASTE: METAL FILING, HEPTANE, OIL GRINDING SLUDGE,GRAPHITE. FAC TYPE: CTY OF RIVERSIDE INTER OFFICE MEMO, 1/15/81 - ILLEGAL DUMP OF OIL IN 2 AREAS. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Unplottable Summary

Total: 5 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
HHSS	MEDITERRANEAN INC	12717 IOWA US 395	COLTON CA	92509	822931970
HIST TANK	MEDITERRANEAN, INC	12717 IOWA	COLTON CA		865087187
RCRA NON GEN	TEXACO SERVICE STATION	12717 IOWA S A P 135181 ***EPA Handler ID:*** CAR000116210	COLTON CA	92509	862163191
SWAT	SAN BERNARDINO COUNTY-FONTANA LANDFILL	1/2 MI N OF HIGHLAND AVE 1/4 MI E OF SITE FONTANA, CA 92335	CA		822570514
UST SWEEPS	LUCKY OIL CO INC	12717 IOWA ***C C	Status:*** A36-000-21900	ACTIVE ***Tank ID:*** 000003, 000004, 000001, 000002	COLTON CA	888148146

Unplottable Report

Site: ***MEDITERRANEAN INC***
12717 IOWA US 395 COLTON CA 92509

HHSS

County: Riverside
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002a64a.pdf

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Site: ***MEDITERRANEAN, INC***
12717 IOWA COLTON CA

HIST TANK

Owner Name: SHELL OIL COMPANY
Owner Street: P.O. BOX 4848
Owner City: ANAHEIM
Owner State: CA
Owner Zip: 92803

No of Containers: 4
County: SAN BERNARDINO
Facility State: CA
Facility Zip: 92509

Site: ***TEXACO SERVICE STATION***
12717 IOWA S A P 135181 COLTON CA 92509

RCRA NON GEN

EPA Handler ID: CAR000116210
Gen Status Universe: No Report
Contact Name: SONDRA BIENVENU
Contact Address: P O BOX 2648 , , HOUSTON , TX, 77252-2648 , US
Contact Phone No and Ext: 713-241-5036
Contact Email:
Contact Country: US
County Name: SAN BERNARDINO
EPA Region: 09
Land Type: Private
Receive Date: 20170403
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 2022, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20020514
Handler Name:	TEXACO SERVICE STATION
Source Type:	Notification
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator

Waste Code Details

Hazardous Waste Code:	D001
Waste Code Description:	IGNITABLE WASTE

Hazardous Waste Code:	D018
Waste Code Description:	BENZENE

Hazardous Waste Handler Details

Sequence No:	2
Receive Date:	20170403
Handler Name:	TEXACO SERVICE STATION
Source Type:	Notification
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Waste Code Details

Hazardous Waste Code:	D001
Waste Code Description:	IGNITABLE WASTE

Hazardous Waste Code:	D018
Waste Code Description:	BENZENE

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	ADAM ESTES	***Street 2:***	
Date Became Current:	20170302	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	
Source Type:	Notification	***Zip Code:***	
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	P O BOX 2648
Name:	EQUILON ENT LLC DBA S O P US	***Street 2:***	
Date Became Current:		***City:***	HOUSTON
Date Ended Current:		***State:***	TX
Phone:	713-241-5036	***Country:***	
Source Type:	Notification	***Zip Code:***	77252-2648
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	P O BOX 2648
Name:	EQUILON ENT LLC DBA S O P US	***Street 2:***	
Date Became Current:		***City:***	HOUSTON
Date Ended Current:		***State:***	TX
Phone:	713-241-5036	***Country:***	US
Source Type:	Notification	***Zip Code:***	77252-2648

Historical Handler Details

Receive Dt:	20020514
Generator Code Description:	Small Quantity Generator
Handler Name:	TEXACO SERVICE STATION

Site: ***SAN BERNARDINO COUNTY-FONTANA LANDFILL***
1/2 MI N OF HIGHLAND AVE 1/4 MI E OF SITE FONTANA, CA 92335 CA

SWAT

Site Leak:	
Rank:	1
SWIS Number:	36-AA-0055
Report Status Code:	A
Report Status:	FOUND TO PROVIDE "A RELIABLE INDICATION OF WHETHER OR NOT THERE IS HAZARDOUS WASTE LEAKAGE"
Site Classification Code:	
Transcribe Source:	Solid Waste Assessment Test (SWAT) Program Report to the Legislature 1989-1990
Site Classification:	
Activity Status Code:	
Activity Description:	
Character of Site Code:	
Character of Site:	
Size of Site Code:	
Size of Site:	
Proposal Status:	
Site Leak Desc:	
Type of Leak:	
Enforce Action:	
Enforce Action Desc:	
Waste Management Unit:	
Waste Discharger Sys NO:	8 360304009
Initial Notif Date:	
Proposal Due Date:	
Report Due Date:	07/01/87
Anticipated Rprt Submit Dt:	02/01/88
Report Received Date:	12/30/87
Report Target Review Date:	02/15/89
Report Resubmitted Due Date:	08/01/88
Report Resubmitted Rcvd Dt:	07/01/89
Report Approval Date:	11/30/89
Anticip Proposal Submit Dt:	
Proposal Received Date:	
Proposal Target Review Date:	
Proposal Status Code:	
Proposal Resubmitted Due Dt:	
Proposal Resubmitted Received Due Date:	
Proposal Accepted Date:	
Exemption Questionnaire Approved Date:	
Waiver Approved Date:	
Type of Leak Code:	
DHS & CWMB Notif Date:	
Report Summ Sent Date:	
Monitor Program Revise Date:	
Revise WDR Target Date:	
Hazardous Waste Surface:	
Above Reg Level Surface:	
Below Reg Level Surface:	
Hazardous Waste Ground:	
Above Reg Level Ground:	
Below Reg Level Ground:	
Hazardous Waste Vadose:	
Above Reg Level Vadose:	
Below Reg Level Vadose:	
Surface:	
Ground:	
Vadose:	
Operator Name:	SAN BERNARDINO COUNTY
Agency Name:	
County Number:	
County Name:	SAN BERNARDINO
Regional Board Contact:	
Region:	SANTA ANA REGION 8
Remarks:	

Site: ***LUCKY OIL CO INC***
12717 IOWA COLTON CA

C C:	A36-000-21900	***D Filename:***	SITE10A
BOE:	44-020755	***Page No:***	60
Comp:	21900	***County:***	SAN BERNARDINO
Status:	ACTIVE	***State :***	CA
No of Tanks:	4	***Zip:***	92509
Jurisdict:	SAN BERNARDINO COUNTY	***Latitude:***	34.023409
Agency:	ENVIRONMENTAL HEALTH - U.S.T.	***Longitude:***	-117.335684
Phone:		***Georesult:***	S5HPN-SC-A

Tank Details

Tank ID:	000003	***S Contain:***	
O Tank ID:	3	***Stg:***	P
SWRCB No:	36-000-021900-000003	***Storage :***	
Removed:		***Storag Type:***	PRODUCT
Installed:		***P Contain:***	
A Date:	07-01-85	***Content:***	
Capac:		***ONA:***	
Tank Use:	UNKNOWN	***D File Name:***	TANK10A

Tank Details

Tank ID:	000004	***S Contain:***	
O Tank ID:	4	***Stg:***	P
SWRCB No:	36-000-021900-000004	***Storage :***	
Removed:		***Storag Type:***	PRODUCT
Installed:		***P Contain:***	
A Date:	07-01-85	***Content:***	
Capac:		***ONA:***	
Tank Use:	UNKNOWN	***D File Name:***	TANK10A

Tank Details

Tank ID:	000001	***S Contain:***	
O Tank ID:	1	***Stg:***	W
SWRCB No:	36-000-021900-000001	***Storage :***	
Removed:		***Storag Type:***	WASTE
Installed:		***P Contain:***	
A Date:	07-01-85	***Content:***	WASTE OIL
Capac:	550	***ONA:***	
Tank Use:	OIL	***D File Name:***	TANK10A

Tank Details

Tank ID:	000002	***S Contain:***	
O Tank ID:	2	***Stg:***	P
SWRCB No:	36-000-021900-000002	***Storage :***	
Removed:		***Storag Type:***	PRODUCT
Installed:		***P Contain:***	
A Date:	07-01-85	***Content:***	
Capac:		***ONA:***	
Tank Use:	UNKNOWN	***D File Name:***	TANK10A

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

National Priority List - Proposed: PROPOSED NPL

Sites proposed - by the EPA, the state agency, or concerned citizens - for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Jan 25, 2022

SEMS List 8R Active Site Inventory: SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Feb 24, 2022

SEMS List 8R Archive Sites: SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Feb 24, 2022

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Jan 31, 2022

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Jan 31, 2022

RCRA Generator List: RCRA LQG

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Jan 31, 2022

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Jan 31, 2022

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Jan 31, 2022

RCRA Non-Generators: RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Jan 31, 2022

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Jan 31, 2022

Federal Engineering Controls-ECs: FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Dec 30, 2021

Federal Institutional Controls- ICs: FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Dec 30, 2021

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Jan 25, 2022

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Dec 31, 2021

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Aug 20, 2021

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

List of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Dec 2, 2020

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Feb 4, 2022

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Feb 4, 2022

LIEN on Property: SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Feb 24, 2022

Superfund Decision Documents: SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Nov 16, 2021

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Jan 6, 2022

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Jan 6, 2022

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Jan 6, 2022

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: Feb 2, 2022

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Waste Management Unit Database: WMUD

The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

Government Publication Date: Jan 1, 2000

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Jan 6, 2022

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Construction and Demolition Debris Recyclers: C&D DEBRIS RECY

This listing of Construction and Demolition Debris Recyclers is maintained by the California Intergrated Waste Management Board-common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development.

Government Publication Date: Jun 20, 2018

Recycling Centers: RECYCLING

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 12, 2022

Listing of Certified Processors: PROCESSORS

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 12, 2022

Listing of Certified Dropoff, Collection, and Community Service Programs: CONTAINER RECY

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 12, 2022

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Feb 15, 2022

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Feb 15, 2022

Delisted Leaking Storage Tanks: DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: Feb 15, 2022

Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jan 3, 2022

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE

List of UST cases that are being considered for closure by either the California Environmental Protection Agency, State Water Resources Control Board or the Executive Director that have been posted for a 60-day public comment period.

Government Publication Date: May 5, 2021

Historical Hazardous Substance Storage Information Database: HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Statewide Environmental Evaluation and Planning System: UST SWEEPS

The Statewide Environmental Evaluation and Planning System (SWEEPS) is a historical listing of active and inactive underground storage tanks made available by the California State Water Resources Control Board (SWRCB).

Government Publication Date: Oct 1, 1994

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

SWRCB Historical Aboveground Storage Tanks: AST SWRCB

A list of aboveground storage tanks made available by the California State Water Resources Control Board (SWRCB). Effective January 1, 2008, the Certified Unified Program Agencies (CUPAs) are vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Dec 1, 2007

Oil and Gas Facility Tanks: TANK OIL GAS

Locations of oil and gas tanks that fall under the jurisdiction of the Geologic Energy Management Division of the California Department of Conservation (CalGEM) (CCR 1760). CalGEM was formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR).

Government Publication Date: Apr 4, 2022

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Mar 11, 2022

California Environmental Reporting System (CERS) Tanks: CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 5, 2022

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Apr 5, 2022

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Jan 6, 2022

CALSITES Database: CALSITES

This historical database was maintained by the Department of Toxic Substance Control (DTSC) for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

Government Publication Date: May 1, 2004

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Feb 18, 2021

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Feb 15, 2022

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Jan 6, 2022

GeoTracker Cleanup Program Sites: CLEANUP SITES

A list of Cleanup Program sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Feb 15, 2022

Delisted County Records: DELISTED COUNTY

Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Government Publication Date: Mar 11, 2022

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Lands: INDIAN LUST

LUSTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Oct 12, 2021

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

USTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Oct 12, 2021

Delisted Tribal Leaking Storage Tanks: DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Oct 12, 2021

Delisted Tribal Underground Storage Tanks: DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Oct 13, 2021

County

Riverside County - Local Oversight Program List: LOP RIVERSIDE

A list of Leaking Underground Storage Tank (LUST) facilities in Riverside County. This list is made available by Riverside County Department of Environmental Health. Environmental Cleanup Program provides oversight of assessments and cleanups at properties that have been, or may have been, contaminated with hazardous substances from LUSTs or releases associated with other commercial/industrial use.

Government Publication Date: Jan 18, 2022

Riverside County - Underground Storage Tanks List: UST RIVERSIDE

A list of registered Underground Storage Tank (UST) sites in Riverside County. This list is made available by Riverside County Department of Environmental Health. The Hazardous Materials Management Branch (HMMB) regulates and oversees the inspections of constructions, repairs, upgrades, system operation and removal of UST systems.

Government Publication Date: Jan 18, 2022

San Bernardino County - CUPA List: SANBERN CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Bernardino County. This list is made available by San Bernardino County Fire Department which is the CUPA for all areas of the County except the city of Victorville.

Government Publication Date: Dec 9, 2021

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Nov 2, 2020

Toxics Release Inventory (TRI) Program: TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U. S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Aug 24, 2021

Perfluorinated Alkyl Substances (PFAS) Releases: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a Per- or polyfluorinated alkyl substance (PFAS) included in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances. The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Aug 24, 2021

PFOA/PFOS Contaminated Sites: PFAS NPL

List of sites where PFOA or PFOS contaminants have been found in drinking water or soil. Made available by the Federal Environmental Protection Agency (EPA).

Government Publication Date: Jan 11, 2022

Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances.

Government Publication Date: Jul 20, 2020

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Disclaimer: The source conveys this database undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Limited location details are available with this data. Access the following for the most current informations https://pfasproject.com/pfas-contamination-site-tr acker/

Government Publication Date: Dec 12, 2019

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Sep 1, 2020

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Nov 22, 2021

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Apr 11, 2019

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Mar 30, 2022

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Oct 14, 2021

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) online search. The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 5, 2021

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 5, 2021

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: May 26, 2021

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

Government Publication Date: Jul 7, 2020

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: Nov 2, 2021

Surface Mining Control and Reclamation Act Sites: SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Government Publication Date: Dec 18, 2020

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

Uranium Mill Tailings Radiation Control Act Sites: URANIUM

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

Government Publication Date: Mar 4, 2017

Alternative Fueling Stations: ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Dec 21, 2021

Superfunds Consent Decrees: CONSENT DECREES

A list of Superfund consent decrees made available by the Department of Justice, Environment & Natural Resources Division (ENRD).

Government Publication Date: Sep 30, 2018

Registered Pesticide Establishments: SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Mar 30, 2022

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Jan 20, 2022

State

Dry Cleaning Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Dec 20, 2021

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Feb 28, 2020

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Feb 28, 2020

Per- and Polyfluoroalkyl Substances (PFAS): PFAS

List of sites from the State Water Resources Control Board (SWRCB)'s GeoTracker at which one or more of the potential contaminants of concern are in the PFAS Master List of PFAS Substances made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Feb 15, 2022

PFOA/PFOS Groundwater: PFAS GW

A list of water wells from the Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System with the groundwater chemical perfluorooctanoic acid (PFOA) (NL = 0.014 UG/L) or perfluorooctanoic sulfonate (PFOS) (NL = 0.013 UG/L). The GAMA Groundwater Information System search is made available by California Water Boards.

Government Publication Date: Oct 22, 2020

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: May 20, 2021

Toxic Pit Cleanup Act Sites: TOXIC PITS

The Toxic Pits Cleanup Act (TPCA) list identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. This list was maintained by the State Water Resources Control Board (SWRCB), is not longer maintained, and updates are not planned.

Government Publication Date: Jul 1, 1995

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked in the Department of Toxic Substance Control (DTSC) EnviroStor.

Government Publication Date: Apr 29, 2021

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Jan 6, 2022

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Feb 8, 2022

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Hazardous Waste Manifest Data: HAZNET

A list of hazardous waste manifests received each year by Department of Toxic Substances Control (DTSC). The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Oct 24, 2016

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

DTSC Registered Hazardous Waste Transporters: HW TRANSPORT

The California Department of Toxic Substances Control (DTSC) maintains this list of Registered Hazardous Waste Transporters.

Government Publication Date: Oct 19, 2020

Registered Waste Tire Haulers: WASTE TIRE

This list of registered waste tire haulers is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 12, 2022

California Medical Waste Management Program Facility List: MEDICAL WASTE

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

Government Publication Date: Dec 31, 2020

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Dec 6, 2021

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 5, 2022

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Sites in GeoTracker: GEOTRACKER

GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. This is a list of sites in GeoTracker that aren't otherwise categorized as LUST, Land Disposal Sites (LDS), Cleanup Sites, or sites having Waste Discharge Requirements (WDR). This listing includes program types such as Underground Injection Control (UIC), Confined Animal Facilities (CAF), Irrigated Lands Regulatory Program, plans, and non-case information.

Government Publication Date: Feb 15, 2022

Mines Listing: MINE

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

Government Publication Date: Dec 17, 2021

Recorded Environmental Cleanup Liens: LIEN

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

Government Publication Date: Dec 15, 2021

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Feb 15, 2022

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program. This program requires emission inventory updates every four years.

Government Publication Date: Dec 31, 2019

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jan 19, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

Riverside County - Hazardous Waste Generator Sites List: HWG RIVERSIDE

A list of Hazardous Waste Generator Sites in the County of Riverside. This list is made available by Riverside County Department of Environmental Health which has been designated as the CUPA for the County.

Government Publication Date: Jan 18, 2022

Riverside County - Disclosure Facility List: HZH RIVERSIDE

A list of facilities disclosed to Riverside County Department of Environmental Health (DEH). This list is made available by Riverside County DEH which has been designated as the CUPA for the County. A business is required to establish and submit a Business Plan if the facility handles hazardous material equal to or greater than 55 gallons, 500 pounds or 200 cubic feet at any time during the year.

Government Publication Date: Jan 18, 2022

Riverside County - Medical Waste Facilities: MED WST RIVERSIDE

This list of active and inactive medical waste facilities is maintained by the County of Riverside Department of Environmental Health.

Government Publication Date: Feb 9, 2022

Riverside County - California Accidental Release Prevention Program Sites: RMP RIVERSIDE

This list of Riverside County California Accidental Release Prevention Program sites is maintained by the County of Riverside Department of Environmental Health. AB 3777 was enacted in 1986 to minimize potential emergencies involving acutely hazardous materials by requiring facilities which handle these materials to submit Risk Management Prevention Plans. The Riverside County Department of Environmental Health Hazardous Materials Branch began implementation of this Program County-wide in January 1991. All cities within Riverside County are included in this list.

Government Publication Date: Jan 18, 2022

San Bernardino County - Medical Waste Facility List: MED WST SANBERN

This list of San Bernardino County medical waste facilities is maintained by the County of San Bernardino Department of Public Health Medical Waste Program. The Medical Waste Program regulates generators of medical waste based on the Medical Waste Management Act. The program inspects medical waste facilities, facilities with on-site medical waste treatment units, and common storage areas annually. This program also investigates complaints regarding mishandling of medical waste and facilities that may be operating without a valid health permit. Some facilities that may generate medical waste include hospitals, skilled nursing facilities, blood banks, and doctors, dental and veterinarian offices.

Government Publication Date: Dec 20, 2021

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

PARTNER
Engineering and Science, Inc.®



PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

1151 Palmyrita Avenue and 950 Iowa Avenue
Riverside, California 92507

Report Date: February 8, 2016
Partner Project No. 16-155142.1



Prepared for:

BMO as Agent for the Lenders
100 King Street West 18th Floor
Toronto, Ontario, M5X 1A1

PARTNER
Engineering and Science, Inc.

February 8, 2016

Mr. Syam Rathod
BMO as Agent for the Lenders
100 King Street West 18th Floor
Toronto, Ontario, M5X 1A1

Subject: Phase I Environmental Site Assessment
1151 Palmyrita Avenue and 950 Iowa Avenue
Riverside, California 92507
Partner Project No. 16-155142.1

Dear Mr. Rathod:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (773) 840-5070.

Sincerely,

Bob Geiger
Relationship Manager

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by BMO as Agent for the Lenders for the property located at 1151 Palmyrita Avenue and 950 Iowa Avenue in the City of Riverside, Riverside County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide BMO as Agent for the Lenders with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the east side of Iowa Avenue and the north side of Palmyrita Avenue, within a mixed commercial and industrial area of Riverside County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Addresses:	1151 Palmyrita Avenue and 950 Iowa Avenue, Riverside, California
Property Use:	Warehouse distribution
Land Acreage (Ac):	13.6 Total Ac: 1.67 Ac (950 Iowa Avenue) and 11.93 (1151 Palmyrita Avenue)
Number of Buildings:	One (1)
Number of Floors:	One (1)
Gross Building Area (SF):	Approximately 97,000 SF
Date of Construction:	1975
Assessor's Parcel Number (APN):	247-170-030 (950 Iowa Avenue) and 247-170-039 (1151 Palmyrita Avenue)
Type of Construction:	Metal siding and superstructure, slab-on-grade
Current Tenants:	Barrette Home Living
Site Assessment Performed By:	Heather Hodgetts of Partner
Site Assessment Conducted On:	January 27, 2016

The subject property consists of a total of 13.6 acres of land. The western portion of the subject property consists of 1.67 acres of vacant land (950 Iowa Avenue). The eastern portion of the subject property consists of 11.93 acres of land improved with a single-story, metal warehouse distribution building, associated paved surface parking, three railroad spurs, and landscaped areas surrounded by a fence. The building was constructed in 1975. The building is occupied by Barrette Home Living, a distributor of nylon and vinyl fencing materials. In addition, Barrette Home Living uses the southeastern portion of the warehouse to assemble metal bed frames for Sealy, Serta, and Simmons Mattress. Access to the subject property is via an entrance along Palmyrita Avenue.

According to review of available historical data, it appears that the subject property and surrounding properties were agriculturally developed land (orchards) from 1931 to at least 1974. By 1963, a railroad spur was located on the northern portion of the subject property. By 1975, the subject property was

developed with the existing building and eastern portion of the subject property consisted of paved lot. By 2003, the eastern portion of the subject property was developed with the current paved parking areas, two rail spurs. The western portion of the subject property remained agriculturally developed until at least the early 2000s when the orchards were removed leaving a vacant parcel. According to records reviewed and previous reports, the building was occupied by multiple tenants including Ancon Marine (2003-2015), and Barrette Outdoor Living (2015-present).

The immediately surrounding properties consist of commercial buildings (800 Iowa Avenue and 1100 Citrus Street) to the north; Palmyrita Avenue followed by Iowa Corporate Center, offices and warehousing (1020 Iowa Avenue, 1050, 1110-1130, 1240, 1260 Palmyrita Avenue, and 1001 Columbia Avenue) to the south; railroad tracks, followed by Allied Steel Co. (1027 Palmyrita Avenue) to the east; and Iowa Avenue followed by commercial distribution warehouse buildings (891 and 981 Iowa Avenue) and the Riverside Terminal (841 Iowa Avenue) to the west.

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject property. However, according to information obtained from the California Regional Water Quality Control Board online database, GeoTracker, for a nearby release (Case Number T0606599032 – 503 East Palmyrita Avenue) and topographic map interpretation, groundwater in the vicinity of the subject property is present at a depth greater than 100 feet below ground surface (bgs) and flow is toward the west.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- According to historical documents and the site reconnaissance railroad spurs are located on the subject property since at least 1963. The spurs are located in the northeastern portion of the property. These structures have the potential to have been impacted through the use and transportation of: petroleum hydrocarbon, creosote, coal ash, metals, and poly aromatic hydrocarbons. Based on the length of use of the railroad spurs are considered to represent a REC.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify any controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been

addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify any historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Overall, all suspect ACMs and painted surfaces were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. Should these materials be replaced, the identified suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1151 Palmyrita Avenue and 950 Iowa Avenue in the City of Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- Potential contamination from the railroad spurs are currently capped with no exposure to the soils. It was also reported by the client that no soil movement work is to be completed on the subject property. A limited subsurface investigation would be required in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property. If future excavations occur, these areas should be investigated prior to any subsurface work.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs located at the subject property.

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1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 1151 Palmyrita Avenue and 950 Iowa Avenue in the City of Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in general accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential

exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

BMO as Agent for the Lenders engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of BMO as Agent for

the Lenders. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted the Terms and Conditions for which this report was completed. A copy of Partner's standard Terms and Conditions can be found at http://www.partneresi.com/terms-and-conditions.php.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past or current owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner requested information relative to deed restrictions and environmental liens, a title search, and completion of a pre-survey questionnaire from the Report User. This information was not provided at the time of the assessment.
- Partner was not able to document the historical use of the subject property prior to 1901. The following sources were reviewed during the course of this assessment and found to be limited: aerial photographs were not available prior to 1931; city directories were not available prior to 1943; topographic maps prior to 1901 were not reasonably ascertainable from local agencies; and other historical sources such as fire insurance maps did not provide coverage of the subject property. This data failure is not considered critical and does not change the conclusions of this report, as the 1901 topographic map revealed the subject property to be residential use. In addition, the adjacent and surrounding areas are also shown mostly with small residential structures.
- Partner was unable to determine the property use at 5-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to

be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews.

- Partner submitted Freedom of Information Act (FOIA) requests to Riverside County Health Department of Environmental Health (RCDEH) and the Riverside Fire Department for information pertaining to hazardous substances, underground storage tanks, releases, inspection records, etc. for the subject property and/or adjacent properties. As of this writing, these agencies have not responded to Partner's request. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.
- Partner's view of the ground during the site assessment was obstructed due to excessive storage. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.

Due to time constraints associated with this report, the Client has requested the report despite the above-listed limitations.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 1151 Palmyrita Avenue and 950 Iowa Avenue in Riverside, California is located on the east side of Iowa Avenue and the north side of Palmyrita Avenue. According to the Riverside County Assessor, the subject property is legally described as 1.67 ACRES M/L IN PAR 1 PM 210/038 PM 31 (950 Iowa Avenue) and 11.93 ACRES M/L IN POR PAR 3 AND PAR 2 P (1151 Palmyrita Avenue), and ownership is currently vested in Barrette Outdoor Living since 2015.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property consists of a total of 13.6 acres of land. The western portion of the subject property consists of 1.67 acres of vacant land (950 Iowa Avenue). The eastern portion of the subject property consists of 11.93 acres of land improved with a single-story, metal warehouse distribution building, associated paved surface parking, three railroad spurs, and landscaped areas surrounded by a fence. The building was constructed in 1975. The building is occupied by Barrette Home Living, a distributor of nylon and vinyl fencing materials. In addition, Barrette Home Living uses the southeastern portion of the warehouse to assemble metal bed frames for Sealy, Serta, and Simmons Mattress. Access to the subject property is via an entrance along Palmyrita Avenue.

The subject property is designated for commercial development by the City of Riverside.

The subject property was not identified in the regulatory database report of Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a mixed commercial/industrial area of Riverside County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

Immediately Surrounding Properties	
North:	Commercial buildings located at 800 Iowa Avenue and 1100 Citrus Street.
South:	Palmyrita Avenue followed by Iowa Corporate Center, offices and warehousing (1020 Iowa Avenue, 1050, 1110-1130, 1240, 1260 Palmyrita Avenue, and 1001 Columbia Avenue)
East:	Railroad tracks, followed by Allied Steel Co. (1027 Palmyrita Avenue)
West:	Iowa Avenue followed by commercial distribution warehouse buildings (891 and 981 Iowa Avenue) and the Riverside Terminal (841 Iowa Avenue).

The adjacent property to the north was identified as a Historic (HIST) Underground Storage Tank (UST), Emissions Inventory Data (EMI), Waste Management Unit Database System (WMUDS/SWAT), Spills, Leaks, Investigations and Cleanup (SLIC), Resource Conservation Recovery Act (RCRA) Large Quantity Generator (LQG), National Pollutant Discharge Elimination System (NPDES), DEED, Land Disposal Sites Listing (LDS), Comprehensive Environmental Response (CERC) No Further Remedial Action Planned (NFRAP), California

Hazardous Material Incident Report System (CHMIRS), Facility and Manifest Data (HAZNET), Enforcement Action Listing (ENF), ENVIROSTOR, Facility Index System (FINDS), Emergency Response Notification System (ERNS), and Federal Tracking System Administrative Case Listing (FTTS/HIST FTTS) site in the regulatory database report of Section 4.2. The adjacent property to the east was identified as a RCRA-LQG site in the regulatory database report of Section 4.2. The adjacent property to the west was identified as an UST site in the regulatory database report of Section 4.2

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *San Bernardino South, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 920 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is sloping gently toward the west. The subject property is depicted on the 1980 map as developed with the existing building located on the western portion of the subject property.

A copy of the most recent topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

According to topographic map interpretation, the direction of groundwater in the vicinity of the subject property is inferred to flow toward the west. The nearest surface water in the vicinity of the subject property is the Spring Book wash located approximately 0.30-miles north of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

According to available information, a public water system operated by the Riverside Public Utilities (RPU) serves the subject property vicinity. According to a representative of the RPU, shallow groundwater directly beneath the subject property is not utilized for domestic purposes. The sources of public water for the City of Riverside are from groundwater sources located in the San Bernardino Bunker Hill Basin and the Riverside Basin.

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject property. However, according to information obtained from the California Regional Water Quality Control Board online database, GeoTracker, for a nearby release (Case Number T0606599032 – 503 East Palmyrita Avenue) and topographic map interpretation, groundwater in the vicinity of the subject property is present at a depth greater than 100 feet below ground surface (bgs) and flow is toward the west.

2.4.3 Geology/Soils

The site is located in the Peninsular Ranges geomorphic province. The Peninsular Ranges are a northwest-southwest oriented complex of blocks separated by similarly trending faults. They extend from the Transverse Ranges and the Los Angeles Basin south to the Mexican border and beyond to the tip of Baja California and are bounded on the east by the Colorado Desert and the Gulf of California. The

Peninsular Ranges contain minor Jurassic and extensive Cretaceous igneous rocks associated with the Nevadan plutonism. Marine Cretaceous sedimentary rocks are well represented and post-Cretaceous rocks form a restricted veneer of volcanic, marine, and nonmarine sediments.

The U. S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) National Cooperative Soil Survey soil maps were reviewed. According to the USDA, the soils underlying the subject property are currently mapped as Buren fine sandy loam and Greenfield sandy loam. The series consists of moderately well drained to well drained, permeable soils. These soils are of alluvium derived from granite. Slopes range from 2 to 8 percent.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06065C0065G, dated August 28, 2008, the subject property appears to be located in Zone X, an area located outside of the 100-year and 500-year flood plains.

A copy of the reviewed flood map is not included in Appendix B of this report.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1901-1974	Aerial Photographs, Interviews, Topographic Maps	Residential/Agriculturally Developed
1975-Present	Aerial Photographs, Topographic Maps, Building Records, City Directories, Interviews, Onsite Observations,	Commercial

According to review of available historical data, it appears that the subject property and surrounding properties were agriculturally developed land (orchards) from 1931 to at least 1974. By 1963, a railroad spur was located on the northern portion of the subject property. By 1975, the subject property was developed with the existing building and eastern portion of the subject property consisted of paved lot. By 2003, the eastern portion of the subject property was developed with the current paved parking areas, two rail spurs. The western portion of the subject property remained agriculturally developed until at least the early 2000s when the orchards were removed leaving a vacant parcel. According to records reviewed and previous reports, the building was occupied by multiple tenants including Ancon Marine (2003-2015), and Barrette Outdoor Living (2015-present).

The subject property parcel was historically used for agricultural purposes. There is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers, may have been used and stored onsite. The subject property is either paved over or covered by building structures that minimize direct contact to any potential remaining concentrations in the soil. Additionally, during previous site development activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) were generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over underlying soils as part of the development activities. Furthermore, it is likely that residual agricultural chemicals (if any) would have likely degraded since the site was last utilized for agricultural purposes. These additional variables serve to further reduce the potential for exposure to residual agricultural chemicals (if any). Based on these reasons, Partner concludes that the possible former use of agricultural chemicals is not expected to represent a significant environmental concern at this time.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources (EDR) on January 31, 2013. The following observations were noted to be visible on the subject property and adjacent properties during the aerial photograph review:

Date:	***1931, 1938 ,1948, 1953***	***Scale:***	***1"=500'***
Subject Property:	Developed with one small structure (farm house) on the southwest corner of the subject property. Remainder of the subject property is depicted as agriculturally developed land (orchards).		

Date:	***1931, 1938 ,1948, 1953***	***Scale:***	***1"=500'***
North:	Agriculturally developed land and one small structure (farm house).		
South:	Palmyrita Avenue, followed by agriculturally developed land and one small structure (farm house).		
East:	Railroad tracks, followed by agriculturally developed land and one small structure (farm house).		
West:	Iowa Avenue, followed by agriculturally developed land.		

Date:	***1963***	***Scale:***	***1"=500'***
Subject Property:	Developed with a railroad spur on the northern portion of the subject property. Remainder of the subject property is depicted as agriculturally developed land.		
North:	Developed with large industrial building.		
South:	No significant changes visible.		
East:	Railroad tracks, followed by agriculturally developed land.		
West:	Iowa Avenue, followed by agriculturally developed land and vacant land.		

Date:	***1967***	***Scale:***	***1"=500'***
Subject Property:	No significant changes visible.		
North:	Developed with large industrial building (identified as Lily Cup on 1967 Topographic Map), a brine pond, and agriculturally developed land.		
South:	No significant changes visible.		
East:	Railroad tracks, followed by a commercial building and agriculturally developed land.		
West:	No significant changes visible.		

Date:	***1977***	***Scale:***	***1"=500'***
Subject Property:	Developed with existing building (1151 Palmyrita Avenue) and a railroad spur on the northern portion of the subject property. Agriculturally developed land is located along the west, south and east boundaries of the subject property.		
North:	Developed with large industrial building (identified as Lily Cup on 1967 Topographic Map), a brine pond, and agriculturally developed land.		
South:	Palmyrita Avenue, followed by agriculturally developed land.		
East:	Railroad tracks, followed by a commercial building.		
West:	Iowa Avenue, followed by vacant land and a commercial building.		

Date:	***1989***	***Scale:***	***1"=500'***
Subject Property:	Developed with existing building (1151 Palmyrita Avenue), a paved area (east of the building), and a railroad spur on the northern portion of the subject property. Agriculturally developed land is located along the west, south and east boundaries of the subject property.		
North:	No significant changes visible.		
South:	Palmyrita Avenue, followed by commercial buildings and vacant land.		
East:	No significant changes visible.		
West:	No significant changes visible.		

Date: 1995	*Scale: 1"=500'*
Subject Property:	No significant changes visible.
North:	No significant changes visible.
South:	Palmyrita Avenue, followed by commercial buildings.
East:	No significant changes visible.
West:	No significant changes visible.

Date: 2005, 2006	*Scale: 1"=500'*
Subject Property:	Developed with existing building (1151 Palmyrita Avenue), a paved area (east of the building), and a railroad spur on the northern portion of the subject property. Vacant land to the west and agriculturally developed land is located along the south and east boundaries of the subject property.
North:	No significant changes visible.
South:	No significant changes visible.
East:	No significant changes visible.
West:	Iowa Avenue, followed by commercial buildings.

Date: 2009, 2010, 2012	*Scale: 1"=500'*
Subject Property:	No significant changes visible.
North:	Developed with large industrial building, and commercial buildings.
South:	No significant changes visible.
East:	No significant changes visible.
West:	No significant changes visible.

Copies of select aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Partner reviewed the collection of Sanborn Fire insurance maps from Environmental Data Resources (EDR) on January 22, 2016. Sanborn map coverage was not available for the subject property.

3.3 City Directories

Partner reviewed historical city directories obtained from Haines & Company Inc. and The Sherman Library and Gardens on January 10, 2014 and January 28, 2016 for past names and businesses that were listed for the subject property and adjacent properties. City directories were not identified for the subject property addresses. The findings are presented in the following table:

City Directory Search for 1151 Palmyrita Avenue and 950 Iowa Avenue (Subject Property)	
Year(s)	**Occupant Listed**
1943-1998	No listings

City directories were not identified for the subject property addresses.

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
1943,1949,1957-1958,1963	No listings

City Directory Search for Adjacent Properties	
1968-1969	Lily-Tulip Cup Corp. (800 Iowa Avenue)
1973	Lily-Tulip Cup Corp. (800 Iowa Avenue), Inland Cities Express, Sackett Transportation (841 Iowa Avenue)
1977	Lily-Tulip Cup Corp. (800 Iowa Avenue), Inland Cities Express, Sackett Transportation, Time DC Freight Inc. (841 Iowa Avenue)
1983	Lily-Tulip Cup Corp. (800 Iowa Avenue), Fairfield American, Inland Cities Express, Inland Cities Truck (841 Iowa Avenue)
1988	Lily-Tulip Cup Corp. (800 Iowa Avenue), Donco Carriers Inc., Inland Cities Express, Inner Coastal Express (841 Iowa Avenue)
1993	Sweetheart Cup Co. (800 Iowa Avenue), Inland Truck Repair, Trailblazer Transpiration (841 Iowa Avenue), Surfa Slick, West Coast Wire & Steel (1027 Palmyrita Avenue), MBM Corp. (1050 Palmyrita Avenue), Aids Project Inland, Legal Aid (1240 Palmyrita Avenue), Riverside Co. (1260 Palmyrita Avenue)
2003	Sweetheart Cup Co. (800 Iowa Avenue), Penhall Co. (841 Iowa Avenue), Surfa Slic, West Coast Wire & Steel LLC (1027 Palmyrita Avenue), MBM (1050 Palmyrita Avenue), Jump for Fun, Otis Spunkmeyer Inc. (1110 Palmyrita Avenue), American Cancer Society, Trade & Technology (1240 Palmyrita Avenue)
2008	Penhall Co. (841 Iowa Avenue), CA Construction (981 Iowa Avenue), West Coast Wire & Steel, LLC (1027 Palmyrita Avenue), MBM (1050 Palmyrita Avenue), Otis Spunkmeyer Inc. (1110 Palmyrita Avenue), American Cancer Society, Intercontinental Imports (1240 Palmyrita Avenue)

According to the city directory review, the adjacent property to the north was been formerly occupied by Lyly-Tulip Cup Corp and Sweetheart Cup Co. operating as a manufacturing tenant between approximately 1968 and 1993 (Refer to Section 4.2.3).

Copies of reviewed city directories are not included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from Environmental Data Resources (EDR) on February 16, 2011. Topographic maps were available and reviewed for the years: 1903, 1953, 1967, 1975, and 1996. The following observations were noted to be depicted on the subject property and adjacent properties during the topographic map review:

Date: 1901	
Subject Property:	Developed with two small structures (potentially residential dwellings) on the southwest and southeast corner of the subject property.
North:	Vacant land.
South:	Palmyrita Avenue, followed by vacant land.
East:	Railroad tracks, followed by vacant land.
West:	Iowa Avenue, followed by vacant land.

Date: 1942, 1954	
Subject Property:	Developed with one small structures on the southwest corner of the subject property. Remainder of the subject property is depicted as agriculturally developed land.
North:	Vacant land.
South:	Palmyrita Avenue, followed by agriculturally developed land.
East:	Railroad tracks, followed by agriculturally developed land.
West:	Iowa Avenue, followed by agriculturally developed land.

Date: 1967, 1973	
Subject Property:	Developed with a railroad spur on the northern portion of the subject property. Remainder of the subject property is depicted as agriculturally developed land.
North:	Developed with large industrial building (identified as Lily Cup).
South:	No significant changes visible.
East:	Railroad tracks, followed by building and agriculturally developed land.
West:	No significant changes visible.

Date: 1980	
Subject Property:	Developed with existing building (1151 Palmyrita Avenue) and a railroad spur on the northern portion of the subject property. Agriculturally developed land is located along the southwest and southeast boundaries of the subject property.
North:	No significant changes visible.
South:	No significant changes visible.
East:	Railroad tracks, followed by building.
West:	Iowa Avenue, followed by a building and agriculturally developed land.

A copies of the topographic maps are included in Appendix B.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 Health Department

Regulatory Agency Data	
Name of Agency:	Riverside County Health Department of Environmental Health (DEH)
Point of Contact:	Suzanne Cauffiel
Agency Address:	4065 County Circle Drive, Room 104
Agency Phone Number:	(951) 358-7018
Date of Contact:	January 25, 2015
Method of Communication:	Faxed Request
Summary of Communication:	As of the date of this report, Partner has not received a response from the DEH for inclusion in this report.

4.1.2 Fire Department

Regulatory Agency Data	
Name of Agency:	Riverside Fire Department (RFD)
Point of Contact:	Dana
Agency Address:	3900 Main Street, 4th Floor, Riverside, California 92522
Agency Phone Number:	(951)826-5737
Date of Contact:	January 7, 2014
Method of Communication:	Faxed Request
Summary of Communication:	As of the date of this report, Partner has not received a response from the RFD for inclusion in this report.

4.1.3 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	South Coast Air Quality Management District (AQMD)
Agency Address:	21865 Copley Drive, Diamond Bar, California 91765
Agency Phone Number:	(909) 396-2000
Date of Contact:	January 25, 2015
Method of Communication:	Online database
Summary of Communication:	No Permits to Operate (PTO), Notices of Violation (NOV), or Notices to Comply (NTC) or the presence of AULs, dry cleaning machines, or USTs were on file for the subject property with the AQMD.

A copy of pertinent documents is included in Appendix B of this report.

4.1.4 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	Regional Water Quality Control Board (RWQCB)
Agency Address:	http://geotracker.waterboards.ca.gov/

Regulatory Agency Data	
Agency Phone Number:	(916) 323-2514
Date of Contact:	January 25, 2015
Method of Communication:	Online database
Name of Agency:	Regional Water Quality Control Board (RWQCB)
Summary of Communication:	Partner received a reply on January 25, 2015 from the RWQCB stating they have no records for the subject property. The subject property was not identified on the RWQCB GeoTracker online database.

A copy of pertinent documents is included in Appendix B of this report.

4.1.5 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC)
Agency Address:	http://www.envirostor.dtsc.ca.gov/public/
Agency Phone Number:	(877) 786-9427
Date of Contact:	January 25, 2015
Method of Communication:	Online database
Summary of Communication:	The subject property was not identified in the online DTSC Envirostor and Hazardous Waste Tracking System databases.

A copy of pertinent documents is included in Appendix B of this report.

4.1.6 Building Department

Regulatory Agency Data	
Name of Agency:	City of Riverside Building & Safety (RBS)
Agency Address:	3900 Main Street, 3rd Floor, Riverside, California 92522
Agency Phone Number:	(951) 826-5697
Date of Contact:	January 25, 2015
Method of Communication:	Online Database
Summary of Communication:	Online building permit records were available for review, as further discussed in the following table. No records were identified for 950 Iowa Avenue.

Building Records Reviewed for 950 Iowa Avenue and 1151 Palmyrita Avenue (Subject Property)		
Year(s)	**Owner/Applicant**	**Description**
1998	Lily Tulip Inc.	Retaining wall
1998	Lily Tulip Inc.	Storm drain
2015	Barrette Outdoor Living	Notice to Building owners from the City of Riverside

A copy of pertinent documents is included in Appendix B of this report.

4.1.7 Planning Department

Regulatory Agency Data	
Name of Agency:	City of Riverside Planning Division
Agency Address:	3900 Main Street, 3rd Floor, Riverside, California 92522
Agency Phone Number:	(951) 826-5371
Date of Contact:	January 25, 2015
Method of Communication:	Online Database
Name of Agency:	City of Riverside Planning Division
Summary of Communication:	According to records reviewed, the subject property is zoned Mission Grove Specific Plan – Business and Manufacturing Park Zone (BMP-sp) for commercial and industrial development by the City of Riverside.

4.1.8 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Division of Oil, Gas and Geothermal Resources (DOGGR)
Agency Address:	http://maps.conservation.ca.gov/doms/doms-app.html
Agency Phone Number:	(916) 322-1080
Date of Contact:	January 25, 2015
Method of Communication:	Online Database
Summary of Communication:	According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

A copy of pertinent documents is included in Appendix B of this report.

4.1.9 Assessor's Office

Regulatory Agency Data	
Name of Agency:	Riverside County Assessor (RCA)
Agency Address:	4080 Lemon St, 1st Floor Riverside, CA 92501
Agency Phone Number:	(951) 955-9553
Date of Contact:	January 25, 2015
Method of Communication:	Online Database
Summary of Communication:	According to records reviewed, the subject property is identified by Assessor Parcel Numbers (APNs) 247-170-030 (950 Iowa Avenue) and 247-170-039 (1151 Palmyrita Avenue).

A copy of pertinent documents is included in Appendix B of this report.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Data Resources, Inc. (EDR). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data

Database	Search Radius (mile)	Subject Property	Adjacent Properties	Sites of Concern
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	**Y**	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	**Y**	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	**Y**	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	**Y**	N
State/Tribal Leaking Storage Tank Site	0.50	N	**Y**	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	N	**Y**	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.50	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
EDR MGP	Varies	N	N	N
EDR US Hist Auto Station	Varies	N	N	N
EDR US Hist Cleaners	Varies	N	N	N

4.2.2 Subject Property Listings

The subject property is not identified in the regulatory database report.

4.2.3 *Adjacent Property Listings*

The adjacent property to the north, east, and west were identified in the regulatory database report, as discussed below:

- The adjacent property, identified as **Lyly Tulip Inc./Brine Facility Lily-Tulip Div./Sweetheart Cup Company/ Rust-O-elum Group** at 800 Iowa Avenue (EDR Map ID: A1, A2, A3, A4, A5), is located adjacent to the north and hydrologically cross-gradient of the subject property. This site identified on the HIST UST, EMI, WMUDS/SWAT, SLIC, RCRA-LQG, NPDES, DEED, LDS, CERC-NFRAP, CHMIRS, HAZNET, ENF, ENVIROSTOR, FINDS, ERNS, and FTTS/HIST FTTS databases.

  According to DEH and GeoTracker records reviewed, Lyly-Tulip Cup Corp and the Sweetheart Cup Company formerly conducted manufacturing operations at the subject property (800 Iowa Avenue) from the late 1960s until the 1990s. The facility was listed as a Category C facility which has a passive waste treatment and disposal system. The operations included a brine pond and eight associated seepage pits on an adjacent parcel located directly to the east. Industrial waste and raw sewage was discharged to the eight pits situated directly south of the brine pond. A remediation plan with oversight from the RWQCB commenced on March 22, 1996, which included the removal of liquids from the seepage pit, drilling out the pits, treating material, installing caps, groundwater monitoring and excavating contaminated soils. As a result, the RWQCB issued a No Further Action (NFA) letter on October 27, 2006 for the brine pond removal and replacement of the brine pond cap. Available records for the facility indicated that it was formerly equipped with two (2) 12,000-gallon diesel fuel underground storage tanks (USTs), which were installed in the mid-1970s. These USTs were removed in 1989 with regulatory oversight provided by the DEH. No indications of contamination were noted in the field, and soil samples were collected from below each tank cavity. On August 25, 2010, DEH issued closure based on the determination that no significant contamination exists. The SLIC database reported that the solvent release to the soil at the subject property is closed. This facility was listed as a RCRA-LQG of: ignitable waste and corrosive waste with no violations found. Based on the regulatory closure and remediation activities conducted under regulatory oversight, these listings are not expected to represent a significant environmental concern.

- The property, identified as **West Coast Wire and Steel, Inc.** at 1027 Palmyrita Avenue (EDR Map ID: 6), is located adjacent to the east (hydrologically up-gradient) of the subject property, across the railroad tracks. This site is reported as a RCRA-LQG site for ignitable and spent non-halogenated solvent wastes. No violations were reported. Based on the regulatory status, this site is not expected to represent a significant environmental concern.

- The property, identified as **Riverside Terminal** at 841 Iowa Avenue (EDR Map ID: B7 and B8), is located adjacent to the west (hydrologically down-gradient) of the subject property, across Iowa Avenue. This site is reported as a Historic UST site for regular unleaded, product, lube oil, waste oil, and diesel. Tanks located on the facility included: one 10,000-gallon diesel UST; one 5,000-gallon diesel UST; one 5,000-gallon unleaded gasoline UST; one 5,000-gallon lube oil UST; one 1,000-gallon waste oil UST; and one 2,000-gallon unleaded gasoline UST. An available tank closure inspection with the Riverside County DEH reports the tanks removed on October 8, 1987.

On August 24, 1993, RCDEH provided closure based on sampling results with no significant contamination reported, and no further site mitigation was required. Based on the removal of the tanks, the analytical results, and regulatory closure, this site is not expected to represent a significant environmental concern.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

4.2.4 Sites of Concern Listings

No sites of concern are identified in the regulatory database report.

4.2.5 Orphan Listings

Three orphan listings are identified in the regulatory database report. No orphan listings of concern were identified.

A copy of the regulatory database report is included in Appendix C of this report.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from BMO as Agent for the Lenders (User of this report).

User Responsibilities				
Item	**Provided By User**	**Not Provided By User**	**Discussed Below**	**Does Not Apply**
Environmental Pre-Survey Questionnaire			**X**	
Title Records, Environmental Liens, and AULs			**X**	
Specialized Knowledge			**X**	
Actual Knowledge			**X**	
Valuation Reduction for Environmental Issues			**X**	
Identification of Key Site Manager	**Section 5.1.3**			
Reason for Performing Phase I ESA	**Section 1.1**			
Prior Environmental Reports		**X**		
Other		**X**		

5.1 Interviews

5.1.1 Interview with Owner

Mr. Rick Paulson, Distribution Manager with Barrette Outdoor Living and key site manager, indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Mr. Paulson further stated that there are no USTs, ASTs, clarifiers, oil/water separators, groundwater monitoring wells, or hazardous substance use/storage/generation on the subject property to the best of his knowledge.

5.1.2 Interview with Report User

Please refer to Section 5.2 below for information requested from the Report User. The information requested was not received prior to the issuance of this report. Because the Report User (Client) is a lender, it is understood that the Report User would not have knowledge of the property that would significantly impact our ability to satisfy the objectives of this assessment. The lack of this information is not considered to represent a significant data gap.

5.1.3 Interview with Key Site Manager

See Section 5.1.1.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.1.5 Interview with Others

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

No previous reports or other pertinent documentation was provided to Partner for review during the course of this assessment.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Heather Hodgetts
Site Assessment Conducted On:	January 27, 2016

The table below provides the subject property personnel interviewed during the field reconnaissance:

Site Visit Personnel for 1151 Palmyrita Avenue and 950 Iowa Avenue (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Mr. Rick Paulson	Distribution Manager with Barrette Outdoor Living	(951) 202-5670	Yes

* Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property

No potential environmental concerns were identified during the onsite reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in commercial dumpsters located on the east side of the building. An independent solid waste disposal contractor, Burrtec, removes solid waste from the subject property. According to property personnel, only household and office trash is collected in the on-site solid waste dumpsters. No evidence of illegal dumping of solid waste was observed during the Partner site reconnaissance.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges on the subject property are directed into the municipal sanitary sewer system. The City of Riverside services the subject property vicinity. No wastewater treatment facilities or septic systems are observed or reported on the subject property.

6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains located throughout the subject property and in the public right of way. Site storm water from roofs, landscaped areas, and paved areas is directed to on-site concrete swales, which drain to the public right of way, and to on-site storm water drains. The subject property is connected to a municipal owned and maintained sewer system.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Department of Agriculture; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Riverside Public Utilities and The Gas Company.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the sanitary sewer system. No industrial process is currently performed at the subject property.

6.1.7 Septic Systems

No septic systems were observed or reported on the subject property.

6.1.8 Additional Site Observations

Signs of individual trespassing were observed under a tree located in the northeast portion of the vacant parcel (950 Iowa Avenue) on the western portion of the subject property. No other additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

No evidence of the use of reportable quantities of hazardous substances was observed on the subject property. Small quantities of general maintenance supplies, cleaning products and propane (for forklifts) were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. The storage and use of maintenance supplies does not appear to pose a significant threat to the environmental integrity of the subject property at this time.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former ASTs or USTs was observed during the site reconnaissance.

6.2.3 Evidence of Releases

No spills, stains or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – "*Non-PCB;*" 2) 50 ppm-500 ppm – "*PCB-Contaminated;*" and, 3) Greater than 500 ppm – "*PCB-Containing.*" The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

The on-site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. A pad-mounted transformer was observed adjacent to the south side of the building. The transformer is not labeled indicating PCB content, however based on the expected installation date is not expected to contain PCBs. No staining or leakage was observed in the vicinity of the transformer. Electrical service is provided to the site by SCE, which retains responsibility for maintenance and clean-up of leaks or spills associated with the transformer.

Additionally, no other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

According to historical documents and the site reconnaissance railroad spurs are located on the subject property since at least 1963. The spurs are located in the northeastern portion of the property. These structures have the potential to have been impacted through the use and transportation of: petroleum hydrocarbon, creosote, coal ash, metals, and poly aromatic hydrocarbons. Based on the length of use of the railroad spurs are considered to represent a REC.

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property building was constructed in 1975. Partner has conducted a limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

Suspect ACMs

Suspect ACM	Location	Friable Yes/No	Physical Condition
Drywall Systems	Office area	No	Good
Floor Tiles	Throughout Building Interior	No	Good
Floor Tile Mastic	Throughout Building Interior	No	Good
Ceiling Tiles	Throughout Building Interior	Yes	Good
Roofing Materials	Roof	No	Good

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

Partner was not provided building plans or specifications for review, which may have been useful in determining areas likely to have used ACM.

According to the US EPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to any disturbance of the construction materials within this facility, a comprehensive ACM survey is recommended.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of

lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property building (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA Radon Zones		
EPA Zones	**Average Predicted Radon Levels**	**Potential**
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

6.3.4 Lead in Drinking Water

According to available information, a public water system operated by the City of Riverside, Public Utilities serves the subject property vicinity. According to the Public Utilities website, the sources of public water for the City of Riverside are the Bunker Hill and Riverside groundwater basins. According the 2014 Water Quality Report, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property building for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

The following indications of water damage were observed during Partner's visual assessment:

Mold Observations	
Location of area affected	**Condition**
Ceiling tiles – offices	Water damaged ceiling tiles

All water damaged materials should be removed and replaced as part of the regular maintenance program. If problems persist the water source should be investigated.

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises. No items of environmental concern were identified on the adjacent properties during the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards.

7.0 FINDINGS AND CONCLUSIONS

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- According to historical documents and the site reconnaissance railroad spurs are located on the subject property since at least 1963. The spurs are located in the northeastern portion of the property. These structures have the potential to have been impacted through the use and transportation of: petroleum hydrocarbon, creosote, coal ash, metals, and poly aromatic hydrocarbons. Based on the length of use of the railroad spurs are considered to represent a REC.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify any controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify any historical recognized environmental conditions during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Overall, all suspect ACMs and painted surfaces were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time. Should these materials be replaced, the identified suspect ACMs would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

Conclusions, Opinions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 1151 Palmyrita Avenue and 950 Iowa Avenue in the City of Riverside, Riverside County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

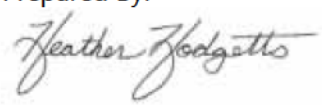
- Potential contamination from the railroad spurs are currently capped with no exposure to the soils. It was also reported by the client that no soil movement work is to be completed on the subject property. A limited subsurface investigation would be required in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property. If future excavations occur, these areas should be investigated prior to any subsurface work.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs located at the subject property.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 1151 Palmyrita Avenue and 950 Iowa Avenue in the City of Riverside, Riverside County, California in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Heather Hodgetts
Senior Scientist

Reviewed By:



Nicole Shelton
Senior Author

9.0 REFERENCES

Reference Documents

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URS Corporation (URS), *Opinion Letter, 800 Iowa Avenue, 1151 Palmyrita Avenue, Riverside, California*, August 23, 2010.

FIGURES

1 SITE LOCATION MAP

2 SITE PLAN

3 TOPOGRAPHIC MAP

PARTNER

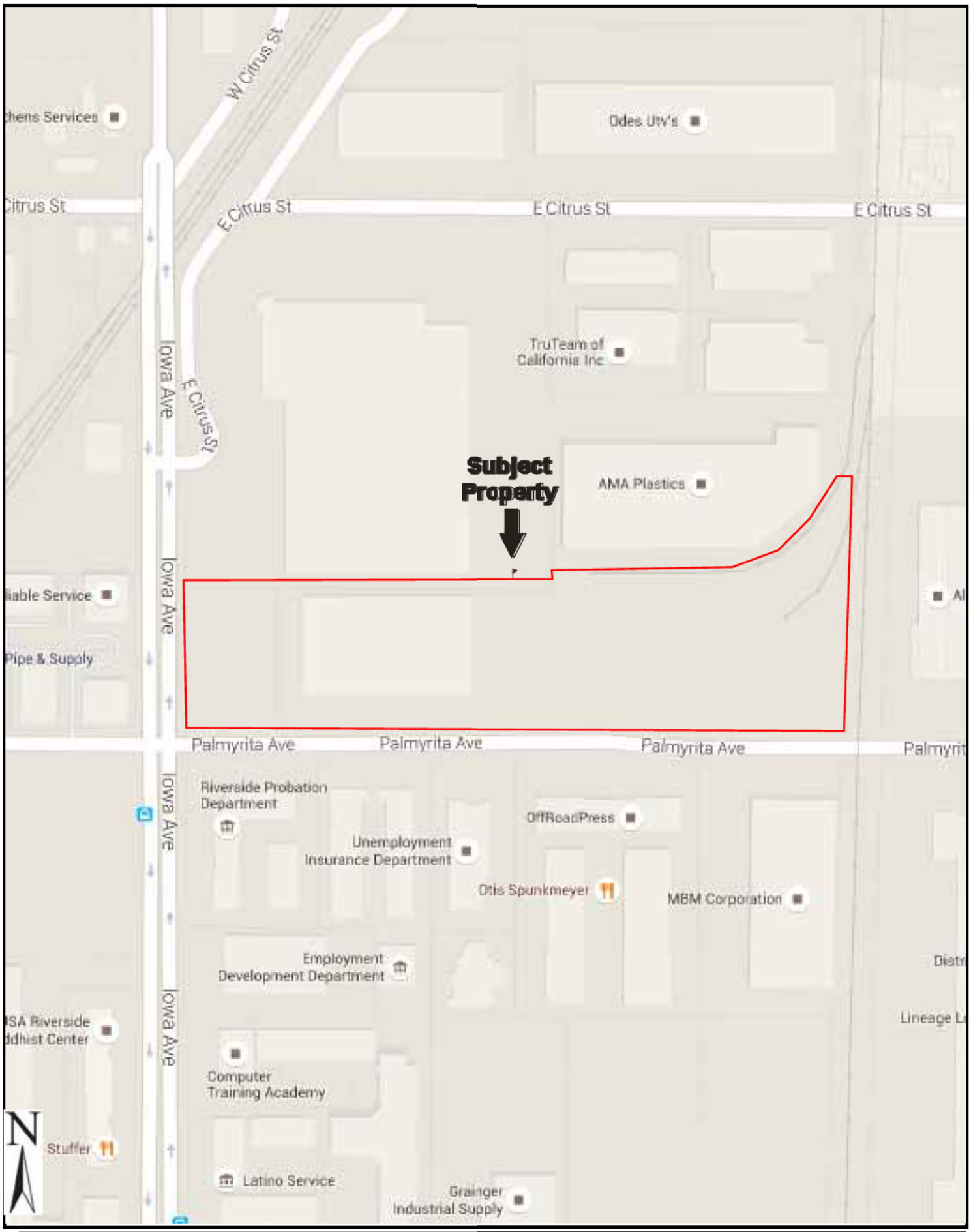


FIGURE 1: SITE LOCATION MAP
Project No. 16-155142.1

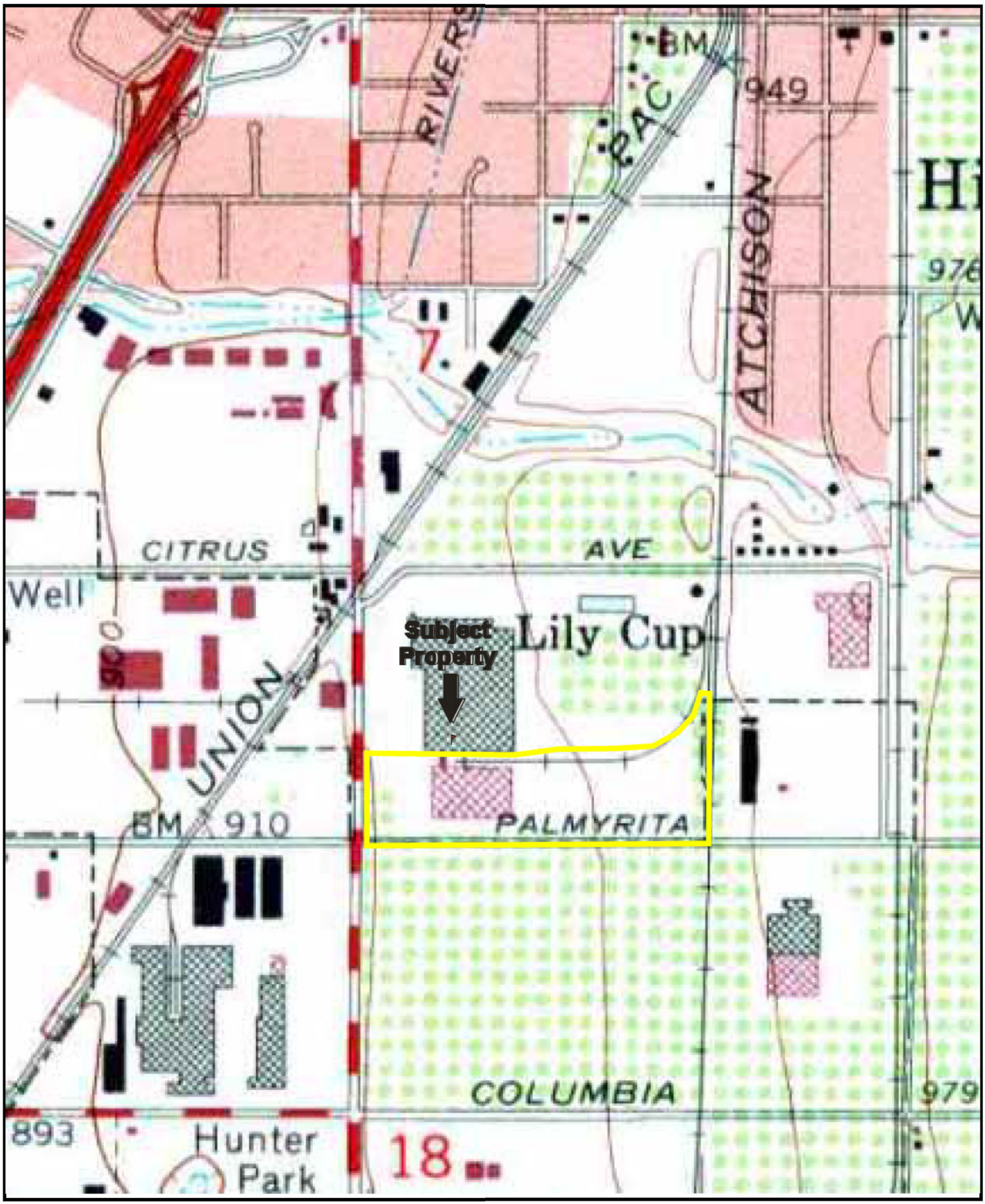
Drawing Not To Scale

PARTNER



FIGURE 2: SITE PLAN
Project No. 16-155142.1

PARTNER



USGS 7.5 Minute *San Bernardino South* Quadrangle Created: 1967 / Revised: 1980

FIGURE 3: TOPOGRAPHIC MAP
Project No. 16-155142.1

PARTNER

APPENDIX A: SITE PHOTOGRAPHS

PARTNER



1. View of the subject property (1151 Palmyrita Avenue) from the entrance to the site, view facing west.



2. View of the subject property (1151 Palmyrita Avenue) from the entrance to the site, view facing northwest.



3. View of the subject property (1151 Palmyrita Avenue) from the entrance to the site, view facing north.



4. View of the subject property (1151 Palmyrita Avenue) from the entrance to the site, view facing northwest.



5. View of the office area in the southeast corner of the building (1151 Palmyrita Avenue), view facing west.



6. View of the warehouse area from the northeast corner of the building (1151 Palmyrita Avenue), view facing south.



7. View of the warehouse area from the northeast corner of the building (1151 Palmyrita Avenue), view facing west.



8. View of the railroad spur located to the north of the building (1151 Palmyrita Avenue), view facing west.



9. View of the railroad spur located to the north of the building (1151 Palmyrita Avenue), view facing east.



10. View of the east side of the building (1151 Palmyrita Avenue), view facing west.



11. View of the propane storage located on the east side of the building (1151 Palmyrita Avenue), view facing northwest.



12. View of the transformer located on the south side of the building (1151 Palmyrita Avenue), view facing west.



13. View of the subject property from the northeast corner of the site (1151 Palmyrita Avenue), view facing southwest.



14. View of the northeast corner of the site and entrance of the west rail spur, view facing northeast.



15. View of the northeast corner of the site and entrance of the east rail spur, view facing northeast.



16. View of the east side of the subject property (1151 Palmyrita Avenue), view facing west.



17. View of the subject property (950 Iowa Avenue) from the northwest corner of the site, view facing east.



18. View of the subject property (950 Iowa Avenue) from the northwest corner of the site, view facing southeast.



19. View of the subject property (950 Iowa Avenue) from the northwest corner of the site, view facing south.



20. View of the adjacent property to the north, view facing northeast.



21. View of the railroad tracks and the adjacent property to the south-southeast, view facing south.



22. View of the railroad tracks and the adjacent property to the east, view facing north.



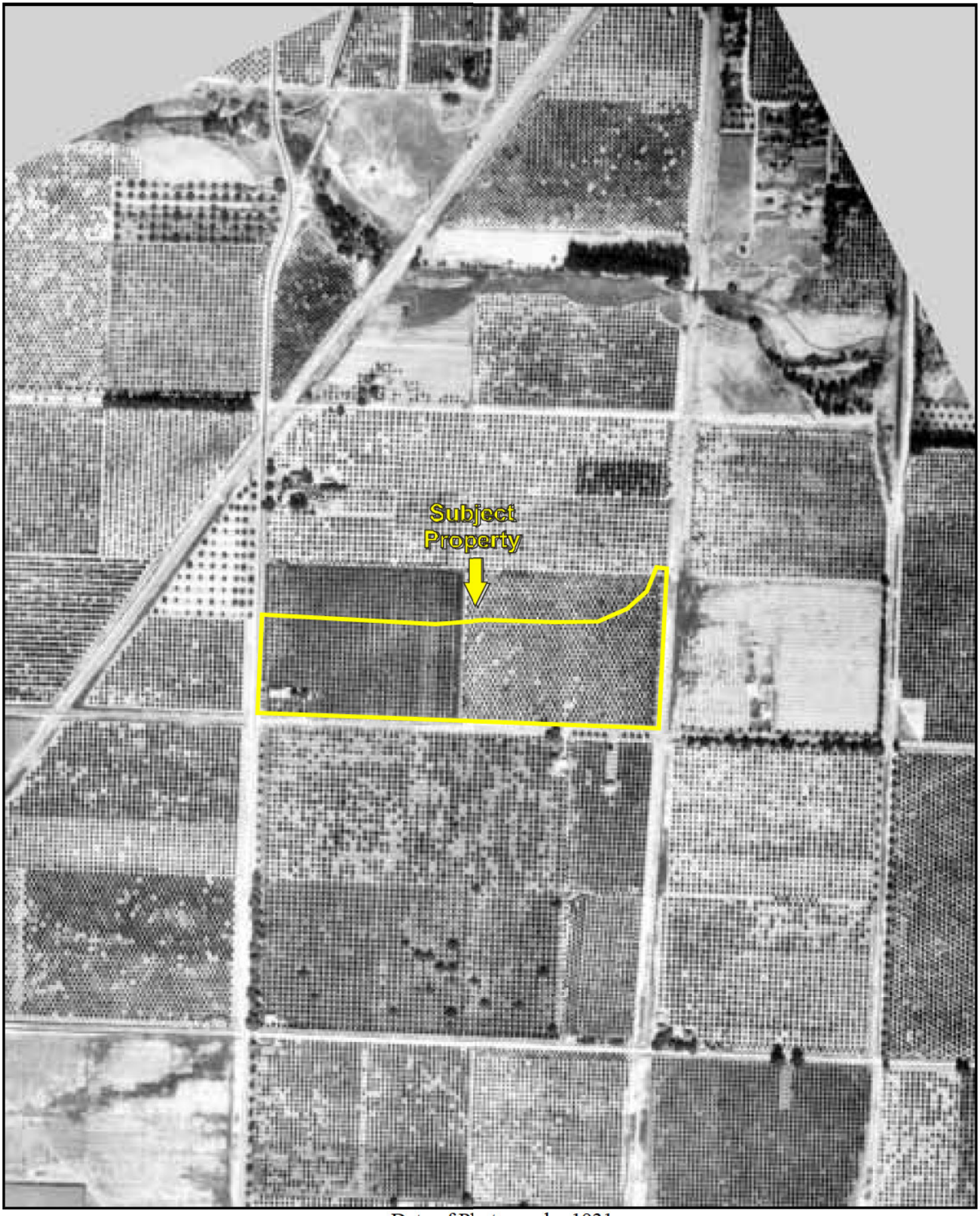
23. View of Palmyrita Avenue and the adjacent property to the south, view facing west.



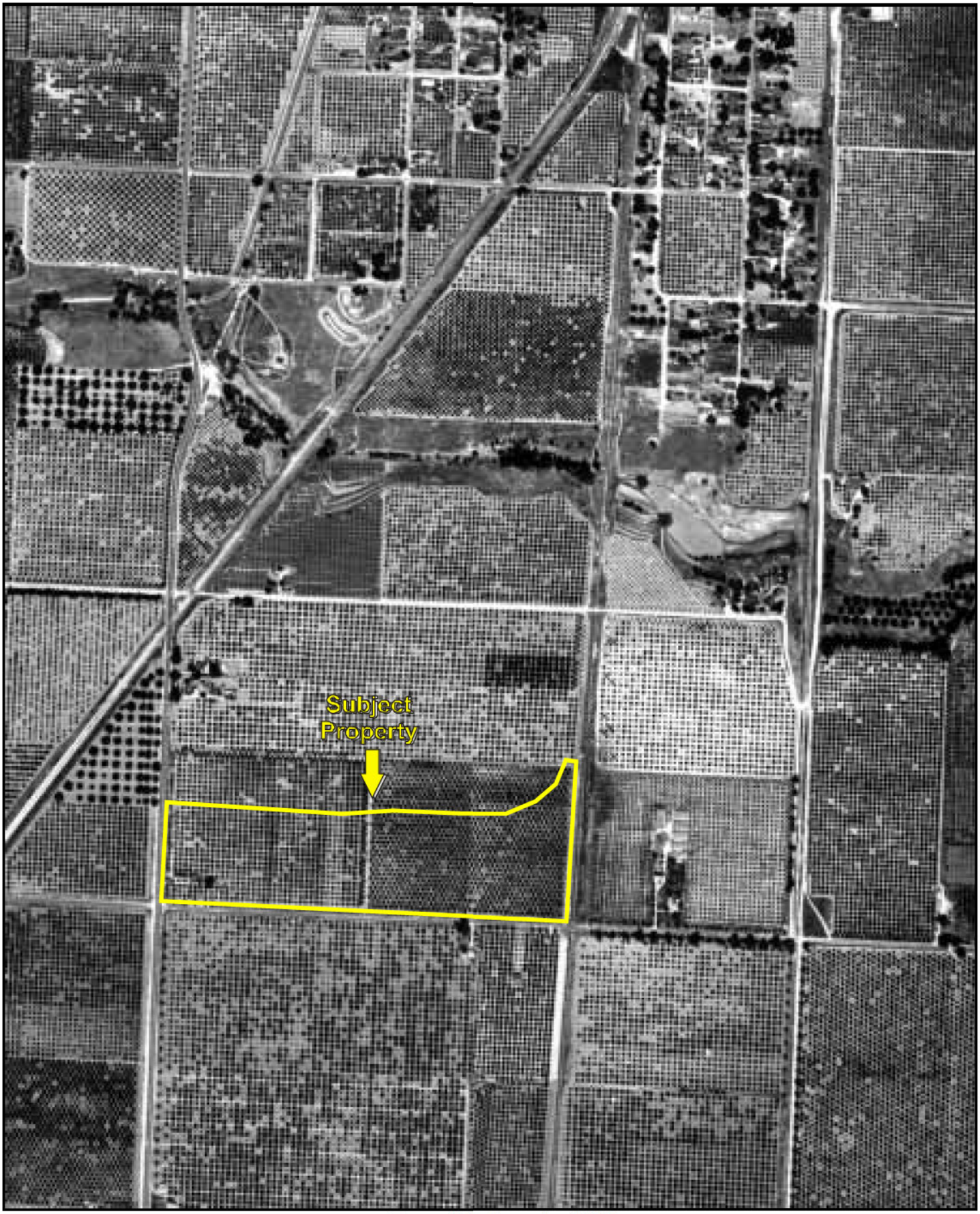
24. View of Iowa Avenue and the adjacent property to the west, view facing northwest.

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

PARTNER



Date of Photograph: 1931



Date of Photograph: 1938



Date of Photograph: 1948



Date of Photograph: 1953



Date of Photograph: 1963



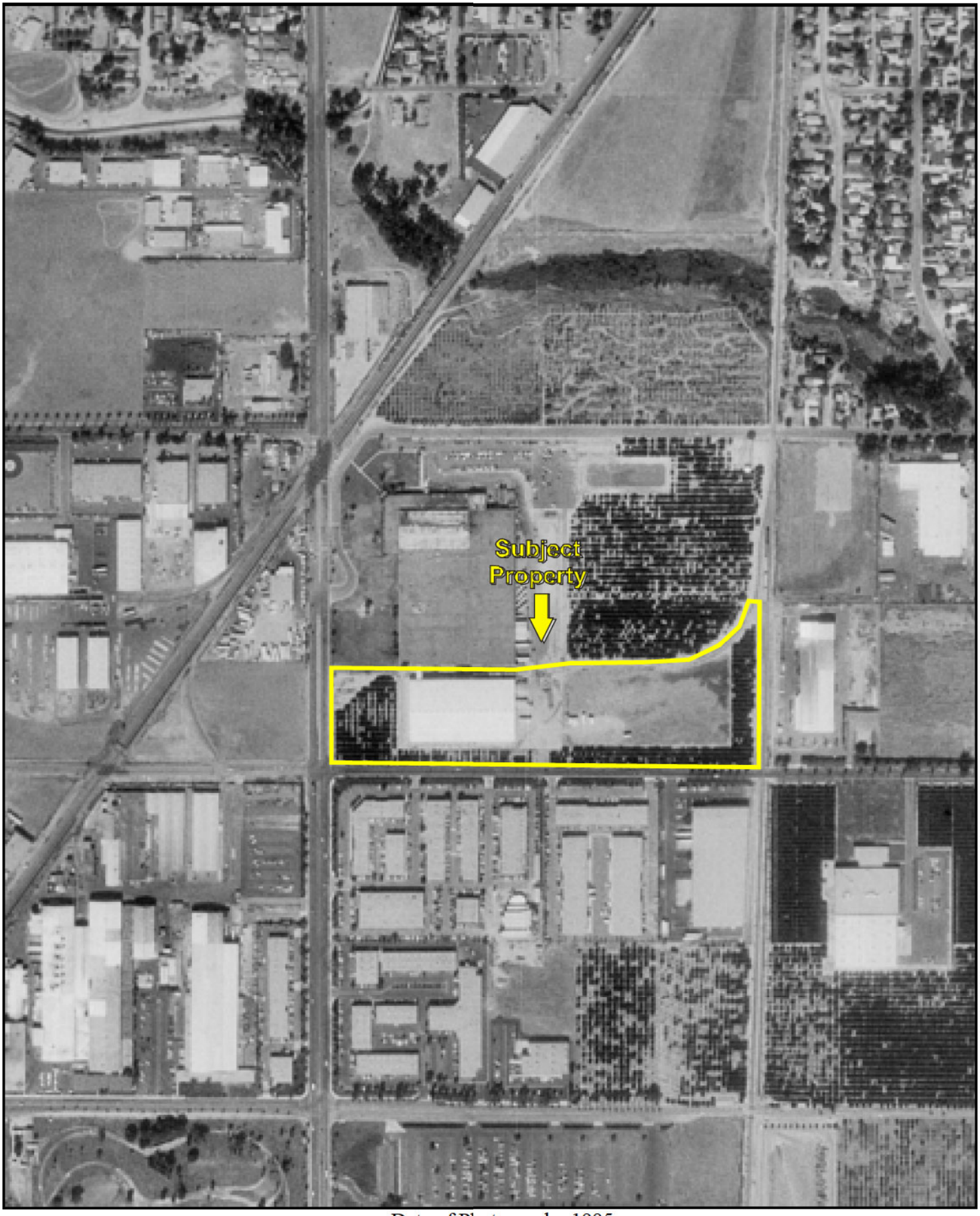
Date of Photograph: 1967



Date of Photograph: 1977



Date of Photograph: 1989



Date of Photograph: 1995



Date of Photograph: 2005



Date of Photograph: 2006



Date of Photograph: 2009



Date of Photograph: 2010



Date of Photograph: 2012

1151 Palmyrita Avenue-950 Iowa Avenue
1151 Palmyrita Avenue-950 Iowa Avenue
Riverside, CA 92507

Inquiry Number: 4519715.2
January 22, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

1/22/16

Site Name:
1151 Palmyrita Avenue-950
1151 Palmyrita Avenue-950
Riverside, CA 92507

Client Name:
Partner Engineering and
2154 Torrance Blvd, Suite 200
Torrance, CA 90501-0000

EDR Inquiry # 4519715.2

Contact: Marisol Garcia

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Certified Sanborn Results:

Site Name: 1151 Palmyrita Avenue-950 Iowa Avenue
Address: 1151 Palmyrita Avenue-950 Iowa Avenue
City, State, Zip: Riverside, CA 92507
Cross Street:
P.O. # NA
Project: 16-155142.1
Certification # 2874-4CC5-81B9

UNMAPPED PROPERTY

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Sanborn® Library search results
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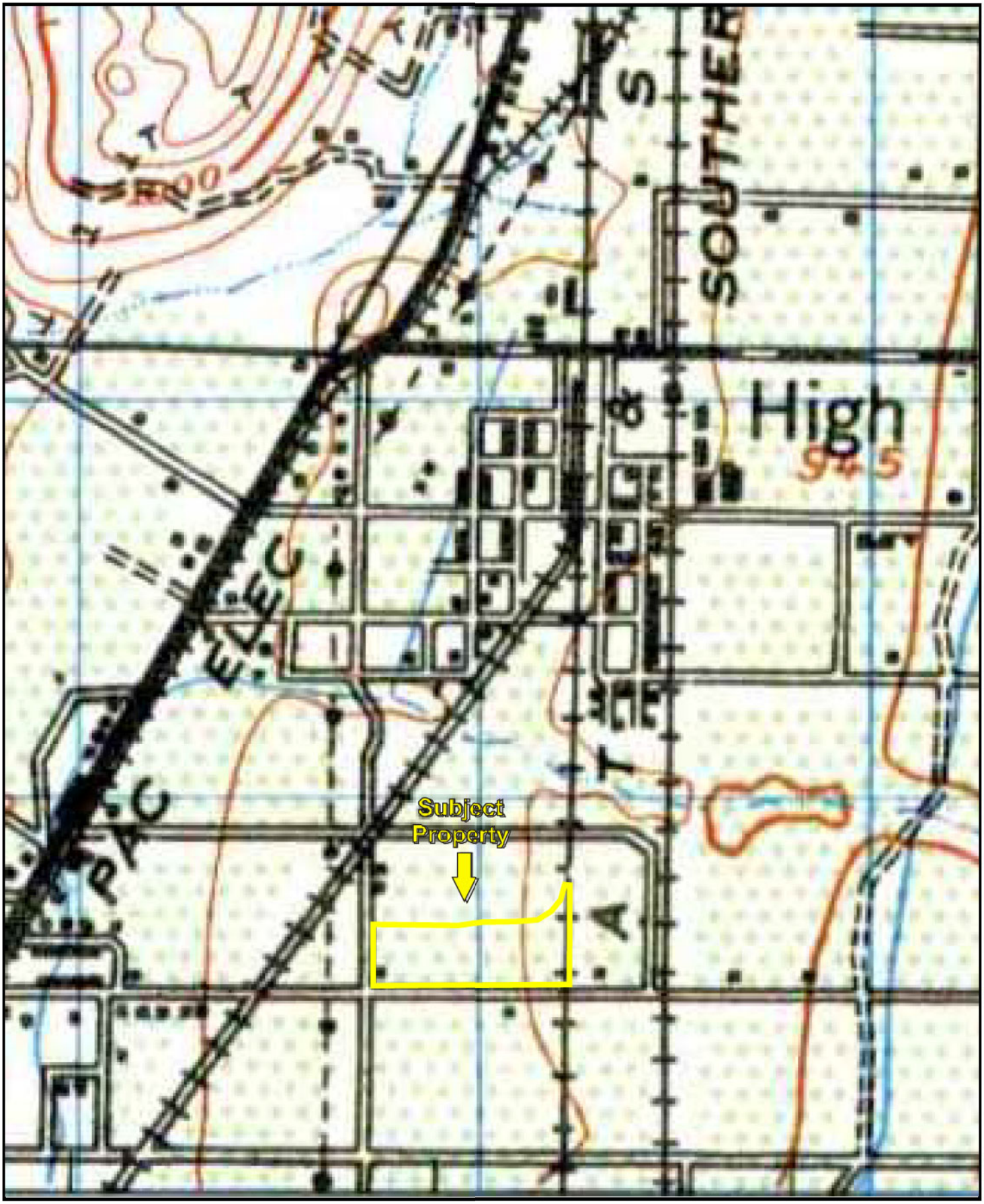
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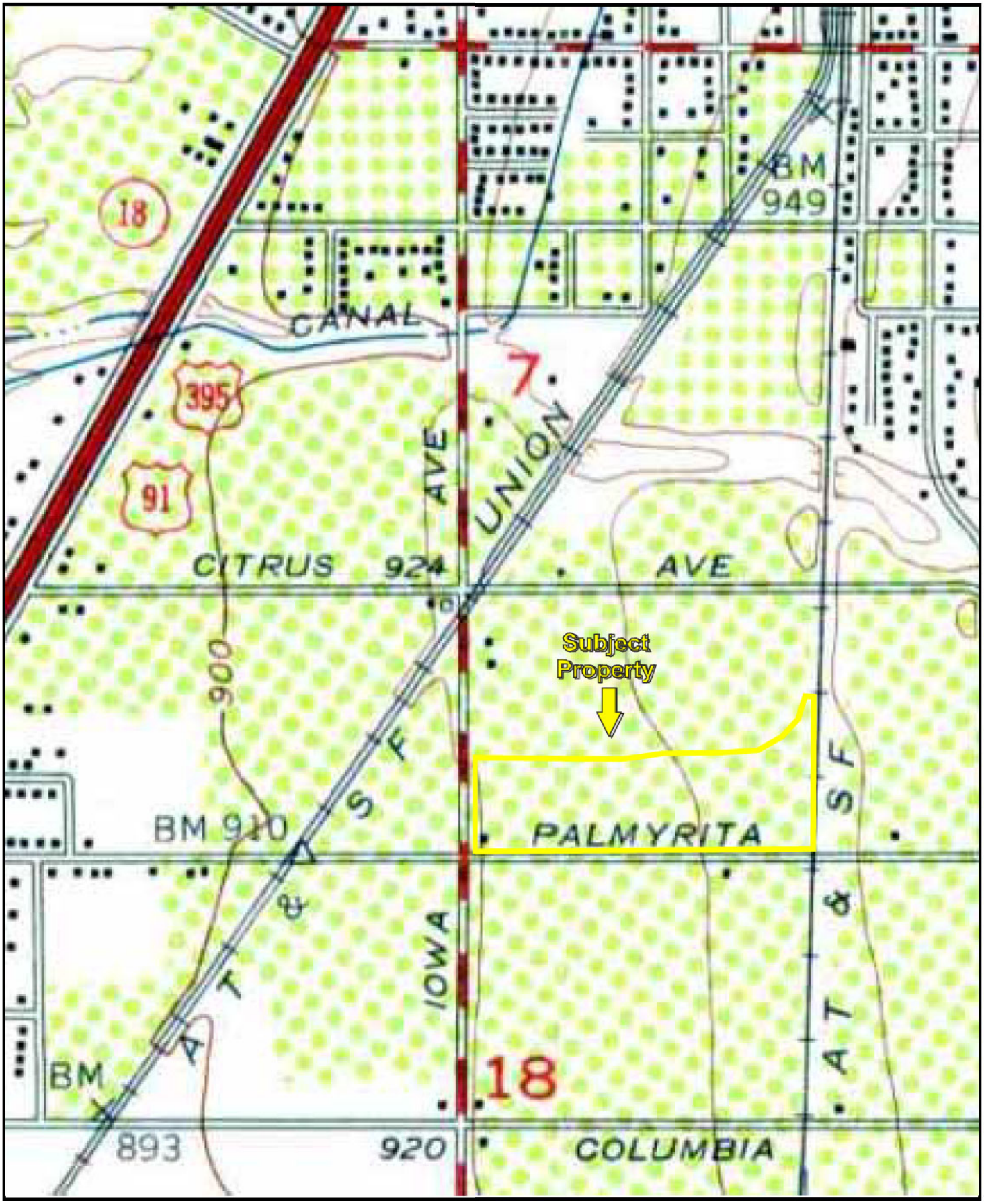
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USGS 15 Minute *San Bernardino, California* Quadrangle Created: 1901



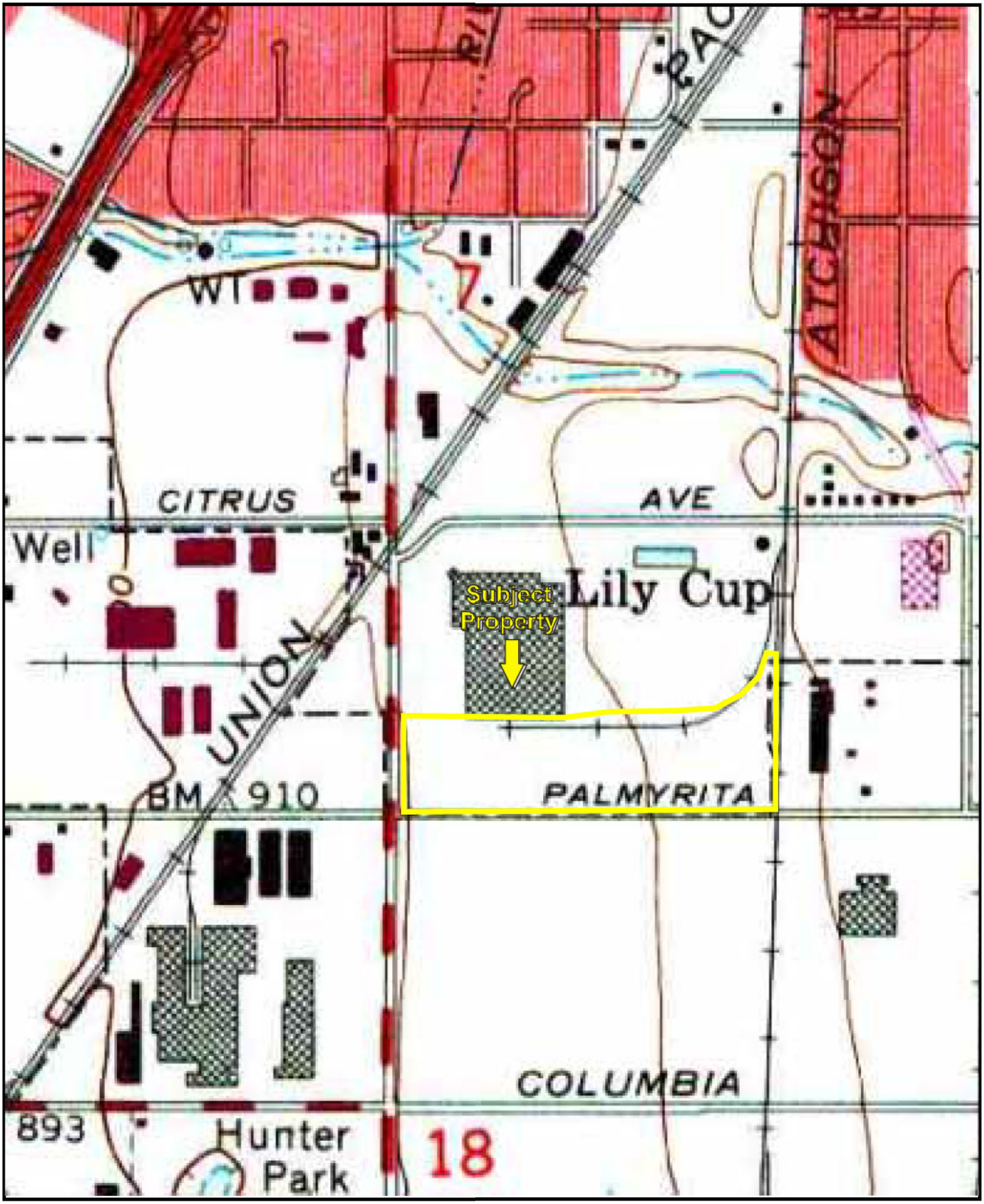
USGS 15 Minute *San Bernardino, California* Quadrangle Created: 1942



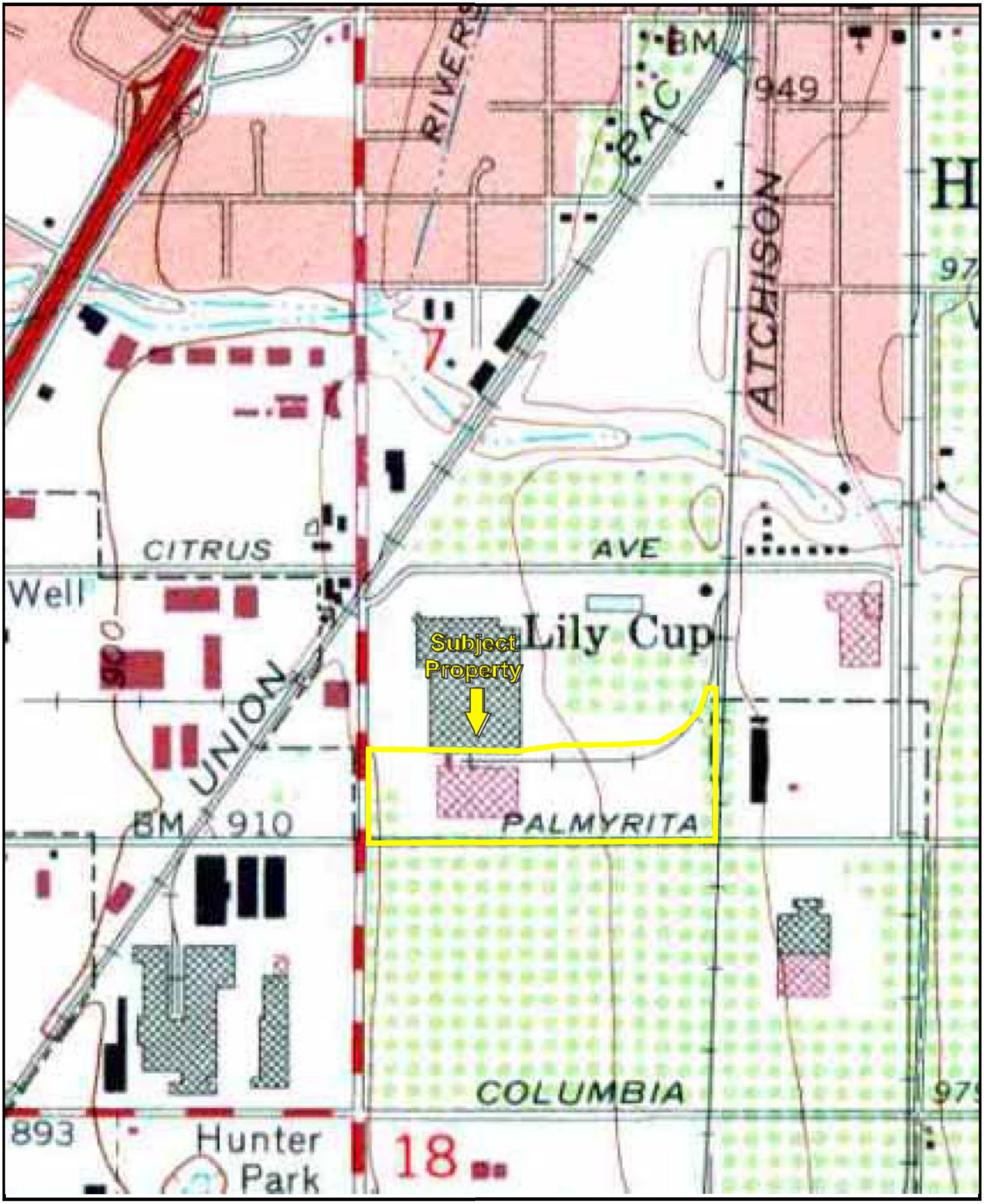
USGS 7.5 Minute *San Bernardino South, California* Quadrangle Created: 1954



USGS 7.5 Minute *San Bernardino South, California* Quadrangle Created: 1967



USGS 7.5 Minute *San Bernardino South, California* Quadrangle Created: 1967 / Revised: 1973



USGS 7.5 Minute *San Bernardino South, California* Quadrangle Created: 1967 / Revised: 1980

SOUTH COAST AQMD

Facility INformation Detail (FIND)

Facility INformation Detail provides consolidated access to public information about facilities in the AQMD basin. If you have a Facility ID, Application Number, Notice Number and/or Case Number, you can access detail information directly, OR you can utilize the Facility Search feature as your facility information gateway. Regularly scheduled updates are made to this data at least once per week.

Click here for a detailed map search.

Search

(•) Find a Facility

Facility Name: [ ]

Street Name: [950 iowa]

City: [riverside]

Zip Code: [ ]

( ) Select Facility ID: [ ]

( ) Select Application Nbr: [ ]

( ) Select NOV or NC: [ ]

( ) Select Hearing Board Case: [ ] - [ ]

[ ] RECLAIM

[ ] TITLE V

There are no facilities that match your search criteria. If you think this result is incorrect, call the number below.

Search Reset

If you are having trouble finding a facility, please Click Here for Instructions

For further information or if you have any questions about the data returned by FIND, email: webinquiry@aqmd.gov

V1.53

SOUTH COAST AQMD

Facility INformation Detail (FIND)

Facility INformation Detail provides consolidated access to public information about facilities in the AQMD basin. If you have a Facility ID, Application Number, Notice Number and/or Case Number, you can access detail information directly, OR you can utilize the Facility Search feature as your facility information gateway. Regularly scheduled updates are made to this data at least once per week.

Click here for a detailed map search.

Search

(•) Find a Facility

Facility Name: [ ]

Street Name: [1151 palmyrita ave]

City: [riverside]

Zip Code: [ ]

( ) Select Facility ID: [ ]

( ) Select Application Nbr: [ ]

( ) Select NOV or NC: [ ]

( ) Select Hearing Board Case: [ ] - [ ]

[ ] RECLAIM

[ ] TITLE V

There are no facilities that match your search criteria. If you think this result is incorrect, call the number below.

Search Reset

If you are having trouble finding a facility, please Click Here for Instructions

For further information or if you have any questions about the data returned by FIND, email: webinquiry@aqmd.gov

V1.53

Hodgetts, Heather

From: Edwards, Mary@Waterboards <Mary.Edwards@waterboards.ca.gov> on behalf of WB-RB8-FileReview8 <FileReview8@waterboards.ca.gov>
Sent: Monday, January 25, 2016 3:50 PM
To: Hodgetts, Heather
Subject: RE: Records Request- Riverside & Rancho Cucamonga

Hi Heather,

I show no records for the addresses listed below. If you have any questions you can call me at 951 782 4499.

Thanks,
Mary

-----Original Message-----
From: Hodgetts, Heather [mailto:HHodgetts@partneresi.com]
Sent: Monday, January 25, 2016 8:47 AM
To: WB-RB8-FileReview8
Subject: Records Request- Riverside & Rancho Cucamonga

I am conducting a Phase I ESA for the following property:

* 11601-11671 Dayton Drive, Rancho Cucamonga, CA 91761
* 9281 Pittsburgh Avenue, Rancho Cucamonga, CA 91761
* 9121 Pittsburgh Avenue, Rancho Cucamonga, CA 91761
* 9041 Pittsburgh Avenue, Rancho Cucamonga, CA 91761
* 11383 Newport Drive, Rancho Cucamonga, CA 91761
* 11400 Newport Drive, Rancho Cucamonga, CA 91761
* 11380 7th Street, Rancho Cucamonga, CA 91761

* 1151 Palmyrita Avenue, Riverside, CA 92507
* 950 Iowa Avenue, Riverside, CA 92507

Please let me know if there are any files for the above addresses.

Thanks!

Heather Hodgetts
Senior Scientist

PARTNER ENGINEERING AND SCIENCE, INC.
11839 SORRENTO VALLEY ROAD, SUITE 906, SAN DIEGO, CALIFORNIA 92121
M: (858) 790-9327 | T: 619-878-9620 | F: 619-684-3660



SITES CURRENTLY VISIBLE ON MAP — 12 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ALUMAX MILL	T0606588288	COMPLETED - CASE CLOSED	1495 COLUMBIA AVE.	RIVERSIDE
BOURNS INC	T0606500426	COMPLETED - CASE CLOSED	1200 COLUMBIA AVE	RIVERSIDE
BRINE FAC,LILY-TULIP DIV	L10001353083	COMPLETED - CASE CLOSED	800 IOWA	RIVERSIDE
CHAMPION LUMBER COMPANY	T0606500064	COMPLETED - CASE CLOSED	1600 COLUMBIA AVE	RIVERSIDE
ENVIRONMENTAL CARE	T0606500568	COMPLETED - CASE CLOSED	687 IOWA AVE	RIVERSIDE
EZ SERVE #0091 (ARCO)	T0606500126	OPEN - INACTIVE	1855 COLUMBIA AVE	RIVERSIDE

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806

Edmund G. Brown Jr
Governor

Facility Search Results

Search Criteria:

Street: 1151 PALMYRITA AVE

Sorted By: EPAID,NAME

ID's Listed:

Address used in the search and displayed below is the Physical Address.

ID Number	Name	Address	City	Zip

No Data Found

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee, Director
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806

Edmund G. Brown Jr
Governor

Facility Search Results

Search Criteria:

Street: 950 IOWA
City: RIVERSIDE
Sorted By: EPAID,NAME

ID's Listed:

Address used in the search and displayed below is the Physical Address.

ID Number	Name	Address	City	Zip

No Data Found

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

1151 PALMYRITA AVE

PERMIT NUMBER
98-4432

CITY OF RIVERSIDE

3900 MAIN STREET
RIVERSIDE, CA 92522

BUILDING & SAFETY DIVISION

(909) 782-5697

Address: 1151 PALMYRITA AV
Location:

Insp Area: I

Type: BLDGCOM
Category: ACOM
Class Code:

Status: APPROVED
Submittal: 11/20/1998
Issued: 12/16/1998

Parcel #: 247-170-016
Cens Tr:
Use Code: 0027

Zoning:

Occupancy Group: B

Owner: LILY TULIP INC
Applicant: FULLMER CONSTRUCTION
Address: 1725 S GROVE AVE
ONTARIO CA 91761
Contractor: FULLMER CONSTRUCTION
Bus Lic: 035137

Phone:
Phone: 909 947-9467

Phone: 909 947-9467
License: B01301814

****

Permit Description:
RETAINING WALL
PC CHECK #2729
PMT CHECK #17834

SERVICE - Type:
Amps/Volts:
Undrgrnd/Ovrhd:

SETBACKS
Front: .0 Back: .0
Left: .0 Right: .0

VALUATION: 11,088.00

Occupancy	Type	Factor	Sq. Feet	Valuation
* Miscellaneous	Retaining Wall (sq ft)	7.00	1,584	11,088.00
Table Date: 06/07/1991		Total Valuation:		11,088.00

****

FEE DESCRIPTION	AMOUNT	FEE DESCRIPTION	AMOUNT
Issuance	25.00	General Plan	27.00
Plan Check	135.00	Acreage fee	.00
Building	135.00	Storm Drain	.00
Microfilm	66.00	Park Fee	.00
Plumbing	.00	Regional Park	.00
Mechanical	.00	Other Dept. Fees	.00
Electrical	.00	Extra Fees (Misc)	.00
SMIP	2.33		
		TOTAL FEES	390.33

THIS PERMIT SHALL BE VOID AND OF NO FURTHER FORCE OR EFFECT IF WORK HEREUNDER IS NOT COMMENCED WITHIN 180 DAYS FROM DATE OF ISSUANCE HEREOF OR IF WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS OR MORE AFTER WORK IS COMMENCED.

OFFICE USE ONLY

CALL FOR INSPECTION
24 HOUR REQUEST LINE
(909) 782-5361

OFFICE USE ONLY

IN ACCORDANCE WITH HEALTH AND SAFETY CODE, SECTION 19825, ALL REQUIRED DECLARATIONS HAVE BEEN PROPERLY SIGNED AND DATED BY THE PERMITTEE.

VERIFIED BY: _____

271-033
White—Building Div. Pink—Business Tax Card—Job Site

39833

Structural Inspection		
Type	Date	Sign
Foundation, Location	1-11-99	
Grout Lift	1-14-99	
Slab		
Roof Sheathing		
Shear Panel/Hold Down		
Framing		
Insulation		
Drywall		
Firewall		
Exterior Lath		
Fireplace		
T-Bar Ceiling		
Special Inspection		
Other		
Clean-up		
Final Approval	8-12-99	

Plumbing Inspection		
Type	Date	Sign
U/G Plumbing		
Rough Plumbing		
Gas Test		
Sewer		
Septic System		
Other		
Sewer Cap		
Final Approval		

Mechanical Inspection		
Type	Date	Sign
Vents & Ducts		
Combustion Air		
Dampers		
Other		
Final Approval		

Swimming Pool/Spa Inspection		
Type	Date	Sign
U/G Plumbing		
Steel & Location		
Electrical Bonding		
U/G Electrical		
U/G Gas Piping		
Gas Test		
Fence & Gates		
Other		
Final Approval		

Electrical Inspection		
Type	Date	Sign
Grounding Electrode		
U/G Conduit		
Rough Wiring		
Other		
Final Approval		

UTILITY CLEARANCE ☐ GAS ☐ ELEC ☐ UNDERGROUND ☐ OVERHEAD ☐ 3 WIRE ☐ 4 WIRE ____ AMPS

NOTES: 1-8-99 @ CONTRACTOR MAY POUR AT OWN RISK PENDING VERIFICATION FROM ENGINEER

1-11-99 @ STEM WALL

The Declarations below are mandated by the State of California under Section 19825 and Section 19826 of the Health and Safety Code.

LICENSED CONTRACTORS DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class B Lic. No. 530814 Date 12.16.98

Contractor Signature

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) licenses pursuant to the Contractors License Law.).

☐ I am exempt under Sec. ____ B. & P.C. for this reason ____

Date ____ Owner Signature ____

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☑ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier FARMERS INS. CO.

Policy Number 0004 3709

(This section need not be completed if the permit is for one hundred dollars ($100) or less).

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date: 12/16/98 Applicant:

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES, AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,00), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name ____

Lenders' Address ____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this county to enter upon the above-mentioned property for inspection purposes.

Signature of Applicant 12/16/98 Date

PERMIT NUMBER

98-4734

CITY OF RIVERSIDE

3900 MAIN STREET
RIVERSIDE, CA 92522

BUILDING & SAFETY DIVISION

(909) 782-5697

Address: 1151 PALMYRITA AV
Location:

Insp Area: I

Type: BLDGCOM
Category: ACOM
Class Code: 437

Status: APPROVED
Submittal: 12/16/1998
Issued: 12/16/1998

Parcel #: 247-170-016
Cens Tr:
Use Code:

Zoning:

Occupancy Group: B

Owner: LILY TULIP INC
Applicant: FULLMER CONSTRUCTION
Address: 1725 S GROVE AVE
ONTARIO CA 91761
Contractor: FULLMER CONSTRUCTION
Bus Lic: 035137

Phone:
Phone: 909 947-946

Phone: 909 947-946
License: B01301814

****

Permit Description:
STORM DRAIN
CHECK #17834

SERVICE - Type:
Amps/Volts:
Undrgrnd/Ovrhd:

SETBACKS
Front: .0 Back: .
Left: .0 Right: .

VALUATION: 55,000.00

Occupancy	Type	Factor	Sq. Feet	Val
		Subtotal:		
		Multiplier 1.00:		
		Addl Fixed Amount:		55,
Table Date: 06/07/1991		Total Valuation:		55,

****

FEE DESCRIPTION	AMOUNT	FEE DESCRIPTION	A
Issuance	25.00	General Plan	
Plan Check	459.50	Acreage fee	
Building	459.50	Storm Drain	
Microfilm	64.00	Park Fee	
Plumbing	.00	Regional Park	
Mechanical	.00	Other Dept. Fees	
Electrical	.00	Extra Fees (Misc)	
SMIP	11.55		
		TOTAL FEES	1,

THIS PERMIT SHALL BE VOID AND OF NO FURTHER FORCE OR EFFECT IF WORK HEREUNDE
NOT COMMENCED WITHIN 180 DAYS FROM DATE OF ISSUANCE HEREOF OR IF WORK IS S
PENDED OR ABANDONED FOR A PERIOD OF 180 DAYS OR MORE AFTER WORK IS COMMENC

Type	Date	Sign
Foundation, Location		
Grout Lift		
Slab		
Roof Sheathing		
Shear Panel/Hold Down		
Framing		
Insulation		
Drywall		
Firewall		
Exterior Lath		
Fireplace		
T-Bar Ceiling		
Special Inspection		
Other		
Clean-up		
Final Approval		

Type	Date	Sign
U/G Plumbing	12-28-98	
Rough Plumbing		
Gas Test		
Sewer		
Septic System		
Other		
Sewer Cap		
Final Approval	8-12-99	

Type	Date	Sign
U/G Plumbing		
Steel & Location		
Electrical Bonding		
U/G Electrical		
U/G Gas Piping		
Gas Test		
Fence & Gates		
Other		
Final Approval		

Mechanical Inspection

Type	Date	Sign
Vents & Ducts		
Combustion Air		
Dampers		
Other		
Final Approval		

Electrical Inspection

Type	Date	Sign
Grounding Electrode		
U/G Conduit		
Rough Wiring		
Other		
Final Approval		

UTILITY CLEARANCE ☐ GAS ☐ ELEC ☐ UNDERGROUND ☐ OVERHEAD ☐ 3 WIRE ☐ 4 WIRE _____ AMPS

NOTES: 12-16-98 @ Rough UG #486 - See Plans
12-18-98 @ Rough UG
12-22-98 @ See Plans
12-23-98 @ See Plans

LICENSED CONTRACTORS

I hereby affirm that I am licensed under provisions of Chapter 9 (commenc Professions Code, and my license is in full force and effect.

License Class B Lic. No. 301814

Contractor Signature _____

OWNER-BUILDER DECL

I hereby affirm that I am exempt from the Contractors License Law Professions Code: Any city or county which requires a permit to construc to its issuance, also requires the applicant for such permit to file a sign provisions of the Contractors License Law (Chapter 9 (commencing Professions Code) or that he or she is exempt therefrom and the basis fo by any applicant for a permit subjects the applicant to a civil penalty of

☐ I, as owner of the property, or my employees with wages as their sol intended or offered for sale (Sec. 7044, Business and Professions Co owner of property who builds or improves thereon, and who does su employees, provided that such improvements are not intended or offered within one year of completion, the owner-builder will have the burden o purpose of sale).

☐ I, as owner of the property, am exclusively contracting with lice Business and Professions Code: The Contractors License Law does n thereon and who contracts for such projects with a contractor(s) licens

☐ I am exempt under Sec. _____ B.&

Date / / Owner Signature _____

WORKERS' COMPENSATIO

I hereby affirm under penalty of perjury one of the following declaratio

☐ I have and will maintain a certificate of consent to self-insure for w of the Labor Code, for the performance of the work for which this perm

☑ I have and will maintain workers' compensation insurance, as requ mance of the work for which this permit is issued. My workers' compe

Carrier Federal Ins. Co

Policy Number 24042707

(This section need not be completed if the permit is for one hundred d

☐ I certify that in the performance of the work for which this permit is as to become subject to the workers' compensation laws of California ers' compensation provisions of Section 3700 of the Labor Code, I sh

Date: 12/16/98 Applicant: _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERA TO CRIMINAL PENALTIES, AND CIVIL FINES UP TO ONE HUNDRED TH OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 O

CONSTRUCTION LEND

I hereby affirm under penalty of perjury that there is a construction le this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lenders' Address _____

I certify that I have read this application and state that the above infor by ordinances and state laws relating to building construction, and here the above-mentioned property for inspection purposes.

_____
Signature of Applicant

City of Riverside

Building & Safety Division
Phone: (951) 826-5697
Fax: (951) 826-5622

❖ PROPERTY OWNER – AUTHORIZED AGENT FORM ❖

Property Owner's Name: BAYWOOD OUTDOOR LIVING INC

Property Address: 1151 PALMYRITA AVENUE, RIVERSIDE, CA, 92507

I (the property owner of the above address) do authorize the undersigned individual, to pull permits from the City of Riverside on my behalf. If this information changes, I will contact your office in writing.

IMPORTANT NOTICE TO OWNER-BUILDERS

The California Health & Safety Code Sec. 19830, states that: "For your protection you should be aware that as "owner-builder" you are the responsible party of record on the permit. Building permits are not required to be signed by property owners unless they are personally performing their own work. If your work is being performed by someone other than yourself, you may protect yourself from possible liability if that person applies for the proper permit in his or her name.

Contractors are required by law to be licensed and bonded by the State of California and to have a Business License from the city in which they work. They are also required by law to put their license number on all permits for which they apply.

If you plan to do your own work, with the exception of various trades that you plan to subcontract, you should be aware of the following information for your benefit and protection:

If you employ or otherwise engage any persons other than your immediate family, and the work (including materials and other costs) is $500 or more for the entire project, and such persons are not licensed as contractors or subcontractors, then you may be an employer.

If you are an employer, you must register with the state and federal government as an employer and you are subject to several obligations including state and federal income tax withholding, federal social security taxes, workers' compensation insurance, disability insurance costs, and unemployment compensation contributions.

There may be financial risks for you if you do not carry out these obligations, and these risks are especially serious with respect to workers' compensation insurance.

For more specific information about your obligations under federal law, contact the Internal Revenue Service (and, if you wish, the U.S. Small Business Administration). For more specific information about your obligations under state law, contact the Department of Benefit Payments and the Division of Industrial Accidents.

If the structure is intended for sale, property owners who are not licensed contractors are allowed to perform their work personally or through their own employees, without a licensed contractor or subcontractor, only under limited conditions.

A frequent practice of unlicensed persons professing to be contractors is to secure an "owner-builder" building permit, erroneously implying that the property owner is providing his or her own labor and material personally. Building permits are not required to be signed by property owners unless they are performing their own work personally.

Information about licensed contractors may be obtained by contacting the Contractors' State License Board's automated telephone information system at 1-800-321-CSLB (2752) or by accessing their Web site at www.CSLB.ca.gov".

By my signature, I acknowledge that I have read and understand the above information:

ANDREW BURKE / AL Aguirre / Kim Aguirre
Print Name of Authorized Agent

Signature of Property Owner
(To be signed & dated in the presence of a Notary)

4/29/2015
Date

THIS DOCUMENT MUST BE NOTARIZED

SEE ATTACHED

STAMP NOTARY SEAL HERE AND ATTACH SEPARATE NOTARY DOCUMENT (ACKNOWLEDGEMENT) TO VERIFY SIGNATURE OF PROPERTY OWNER

State of Ohio
County of Cuyahoga

On this, the 3rd day of April, 2014, before me a notary public, personally appeared Anita Burke, known to me to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Bernadette A. Wiechowski

Notary Public

BERNADETTE A. WIECHOWSKI
Notary Public, State of Ohio
Recorded in Cuyahoga County
My Comm. Expires [illegible]

CA.gov

Department of Conservation

Accessibility

Lat: 34.002

Division of Oil, Gas & Geothermal Resources Well Finder

Find By Location

Find My Current Location

or

Street: 1151 palmyrita ave

City: riverside

Zip: Find

Display a 1500 foot buffer

Buffer radius is limited to 10 mi (52800ft).

Find By API

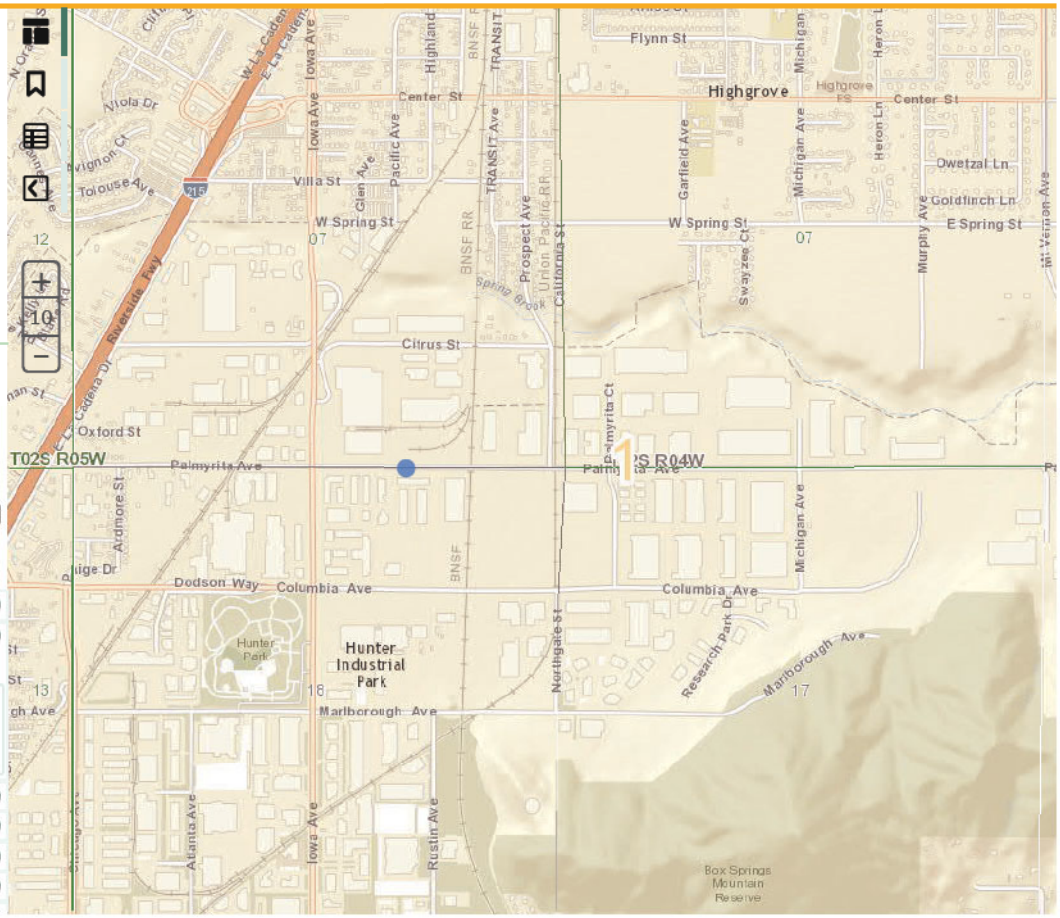
Find By Lat, Long

Find By PLSS

Find By Oil/Gas Field

Data (Layers):

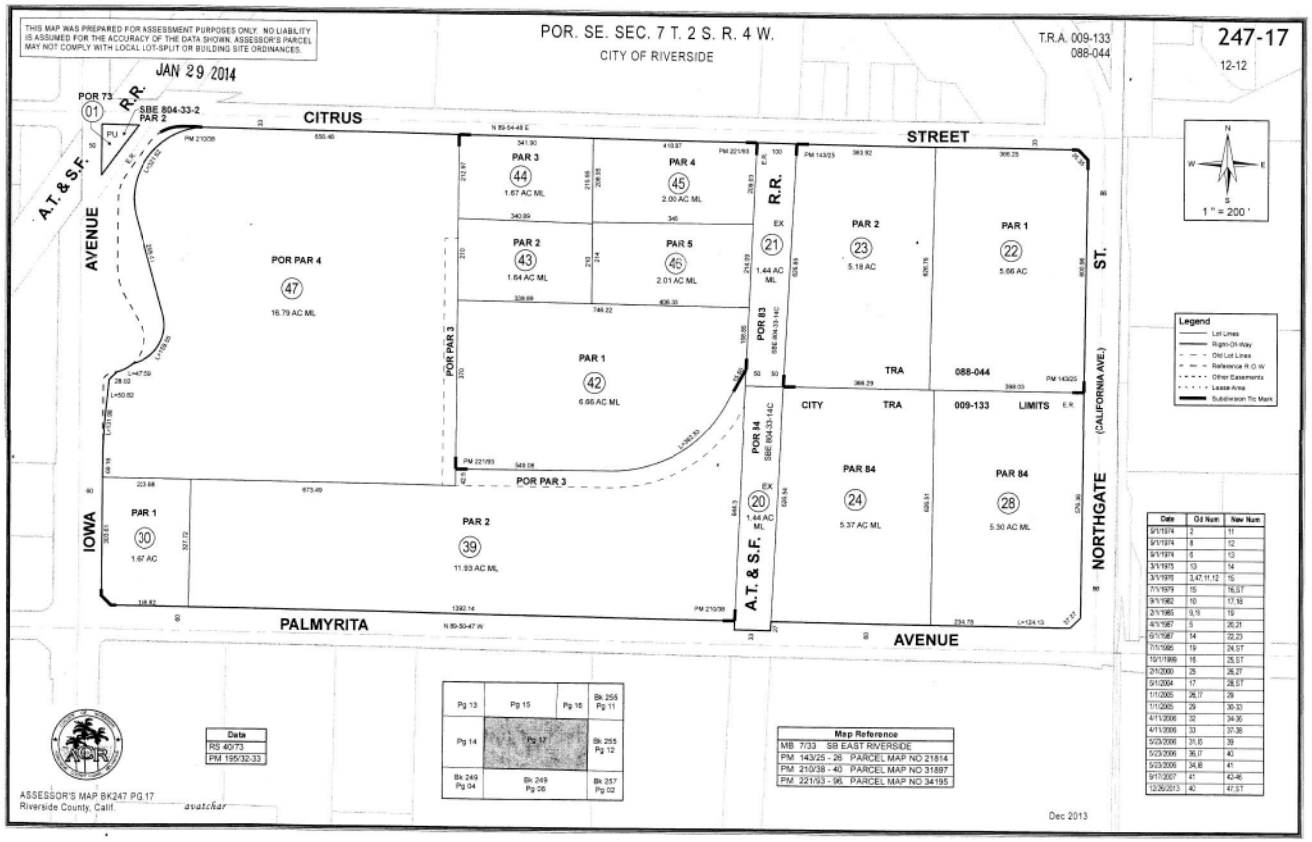
- Notices & Permits
- DOGGR Wells
  - Label: API# Well# Detailed
  - EPA Wells for Aquifer Exemption Review
    - Enhanced Oil Recovery Wells
    - Disposal Wells
- Oil/Gas Fields
- California Geologic Map
- DOGGR Districts
- Public Land Survey System



0.4km

0.3mi

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THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.
JAN 29 2014
POR. SE. SEC. 7 T. 2 S. R. 4 W.
CITY OF RIVERSIDE
T.R.A. 009-133
088-044
247-17
12-12
POR 73
SBE 804-33-2 PAR 2
R.R.
CITRUS
STREET
A.T.&S.F.
AVENUE
PAR 3
44
1.67 AC ML
PAR 4
45
2.00 AC ML
PAR 2
43
1.64 AC ML
PAR 5
46
2.01 AC ML
POR PAR 4
47
16.79 AC ML
POR PAR 3
PAR 1
42
6.66 AC ML
PAR 1
30
1.67 AC
PAR 2
39
11.93 AC ML
PALMYRITA
AVENUE
IOWA
R.R.
21
1.44 AC ML
POR 83
SBE 804-33-14C
POR 84
SBE 804-33-14C
20
1.44 AC ML
A.T. & S.F.
PAR 2
23
5.18 AC
PAR 1
22
5.66 AC
TRA
088-044
CITY
TRA
009-133
LIMITS
PAR 84
24
5.37 AC ML
PAR 84
28
5.30 AC ML
NORTHGATE
(CALIFORNIA AVE.)
ST.
N
W
E
S
1 " = 200 '
Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W.
Other Easements
Lease Area
Subdivision Tie Mark
Date
RS 40/73
PM 195/32-33
Map Reference
MB 7/33 SB EAST RIVERSIDE
PM 143/25 - 26 PARCEL MAP NO 21814
PM 210/38 - 40 PARCEL MAP NO 31897
PM 221/93 - 96 PARCEL MAP NO 34195
Pg 13
Pg 15
Pg 16
Bk 255 Pg 11
Pg 14
Pg 17
Bk 255 Pg 12
Bk 249 Pg 04
Bk 249 Pg 06
Bk 257 Pg 02
Old Num
New Num
ASSESSOR'S MAP BK247 PG.17
Riverside County, Calif.
Dec 2013

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

Please complete to the best of your knowledge. For those questions that are not applicable, please respond with an "N/A". For those questions that are unknown, please respond with "unknown".

1. PROPERTY INFORMATION:

Property Name: Barrette Outdoor Living		
Property Address: 1151 Palmyrita Ave		
City Riverside	State California	Zip 92507
Assessor's Parcel Number		
Property Owner & Contact Information:		
Date Property Owner Purchased:		
Key Site Manager & Contact Information:		

2. COMPLETED BY

Signature [signature]	Date 1-22-16
Printed Name Rick Paulson	Relation to Subject Property Manager

3. PREVIOUS INVESTIGATIONS

Have any previous environmental investigations been performed at the property, including Phase I ESAs, Phase II Subsurface Investigations, Remediation, Asbestos or Lead-Based Paint surveys? UNKNOWN (If yes, please provide copies)

4. PROPERTY DESCRIPTION

Property Size: _____ Number of Building(s): 1

Size of Building(s): 100,000 Sq FT

Date of Construction: UNKNOWN

Property Type: (please circle)

Multi-Family Hotel Mobile Home Park Retail/Commercial Industrial Office

Other: _____

Please provide Rent Roll if Applicable.

Historical Use of Property: NA

PARTNER

5. Surrounding Property Uses

Direction	Use
North	UNKNOWN
South	UNKNOWN
East	UNKNOWN
West	UNKNOWN

Are you aware of any potential environmental concerns associated with surrounding properties?

_____ YES ___X___ NO

If yes, please describe: _____

6. Utilities & Services

Please provide the name of the utility or contractor providing the following:

Electric	City	Bio-hazardous Waste	NA
Gas	NA	Elevator Maintenance	NA
Potable Water	NA	Used Grease	NA
Sanitary Sewer	City	Hazardous Waste	NA

7. On Site Operations

Are you aware of any of the following conditions, either past or present, on the property?		
Condition	**Response**	**If yes, please describe**
1. Stored Chemicals	☐ Yes ☒ No	
2. Underground Storage Tanks	☐ Yes ☒ No	
3. Aboveground Storage Tanks	☐ Yes ☒ No	
4. Spills or Releases	☐ Yes ☒ No	
5. Dump Areas/Landfills	☐ Yes ☒ No	
6. Waste Treatment Systems	☐ Yes ☒ No	
7. Clarifiers/Separators	☐ Yes ☒ No	
8. Vents/Odors	☐ Yes ☒ No	
9. Floor Drains/Sumps	☐ Yes ☒ No	
10. Stained Soil	☐ Yes ☒ No	
11. Electrical Transformers	☐ Yes ☒ No	
12. Hydraulic Lifts/Elevators	☐ Yes ☒ No	
13. Dry Cleaning Operations	☐ Yes ☒ No	
14. Oil/Gas/Water/Monitoring Wells	☐ Yes ☒ No	
15. Environmental Permits	☐ Yes ☒ No	

PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

The following questionnaire is required by the ASTM Standard E 1527-13, which adheres to the All Appropriate Inquiries (AAI) Rule (United States Environmental Protection Agency) (40 CFR 312).

As defined by ASTM, the User of the report is the *"party seeking to use Practice E 1527 to complete an environmental site assessment of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The user has specific obligations for completing a successful application of this practice."*

PROPERTY ADDRESS:	1151 Palmyrita Ave.
PROPERTY CITY, STATE ZIP:	Riverside CA 92507

1. **Environmental liens that are filed or recorded against the property (40 CFR 312.25)**

   Did a search of recorded land title records (or judicial records) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

   ☐ YES ☐ NO

2. **Activity and use limitations (AULs) that are in place on the property or that have been filed or records against the property (40 CFR 312.26(a)(1)(v) and (vi))**

   Did a search of recorded land title records (or judicial records) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

   ☐ YES ☐ NO

3. **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)**

   Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

   ☐ YES ☒ NO

4. **Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29)**
Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

☐ YES ☐ NO

5. **Commonly known or reasonably ascertainable information about the Property (40 CFR 312.30)**
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?

☐ YES ☒ NO

a. Do you know the past uses of the property?

☐ YES ☒ NO

b. Do you know of specific chemicals that are present or once were present at the property?

☐ YES ☒ NO

c. Do you know of spills or other chemical releases that have taken place at the property?

☐ YES ☒ NO

d. Do you know of any environmental cleanups that have taken place at the property?

☐ YES ☒ NO

e. Do you have any prior knowledge that the property was developed as a gas station, dry cleaner, manufacturing/industrial facility in the past?

☐ YES ☒ NO

f. Are you aware of historical use of hazardous materials or petroleum products used or present on the property?

☐ YES ☒ NO

g. Do you know if the property is currently or was formerly equipped with underground storage tanks (USTs) or septic tanks?

☐ YES ☒ NO

h. Do you know of any past, threatened or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?

☐ YES ☒ NO

6. **The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)**

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

☐ YES ☒ NO

Signature of User/Person Interviewed: _____

Name of User/Person Interviewed: _____

Title/Relationship to Property: _____

Phone Number/Email: _____

Date: _____

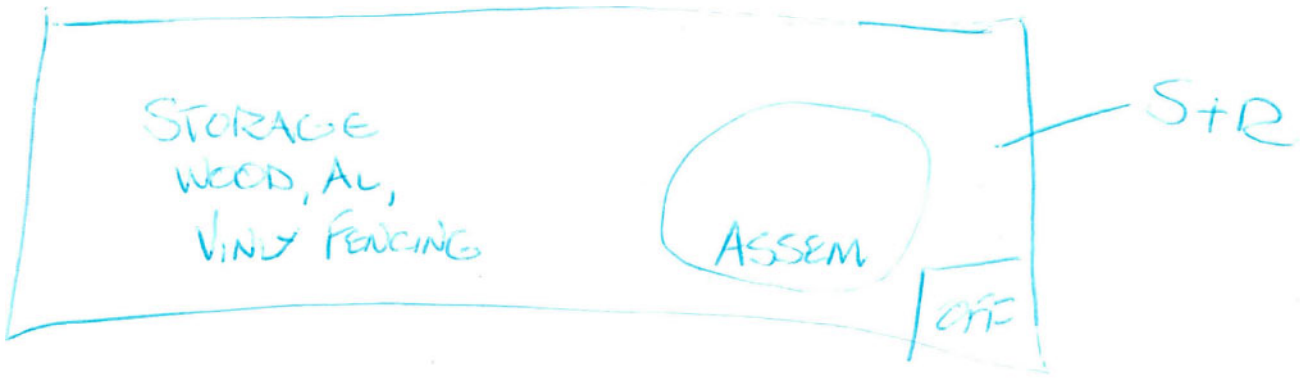
Contact for additional information:

Name: _____

Relationship to Property: _____

Phone Number/Email: _____

1/27/16



ROOF LEAKS

APPENDIX D: QUALIFICATIONS/INSURANCE

PARTNER

Education

B.A. in Environmental Studies - Cal-State University, East Bay

Training

Limited Technical Drafting Experience (AutoCAD and Generic CAD), 2000
gINT for Geologic Boring Logs, 2005
Smith System® Driver Training, 2011
PC 832 Arrest, Search and Seizure Course, 2016

Highlights

20+ years in the Environmental Field specializing in Phase I Environmental Site Assessments (ESAs); Transaction Screen Assessments; and Environmental Desktop Reports
5+ years conducting Environmental Audits for equipment and permits for vehicle maintenance facilities

Experience Summary

Ms. Tentler has approximately 20 years' experience in the environmental industrial conducting property site inspection, reviewing and interpreting the historical data and site specific data for the preparation and writing of the Phase I ESA documents.

Provided environmental review support for numerous Caltrans projects in Southern California, including the proposed widening of various on- and off-ramps on SR-110 in South Pasadena, California; the proposed widening of Price Canyon Road in San Luis Obispo, California; the proposed Westbound Widening of SR-91 in Anaheim, California; Bristol Street Widening Project, Santa Ana, California; the redesign of I-15 and the Clinton Keith Road Interchange in Riverside County; and the SR-210 and Base Line Realignment in Highland, California.

Environmental Compliance Reports (ECRs) for the U.S. Postal Service (USPS) providing environmental compliance audit support for multiple West Coast Processing & Distribution Centers (P&DC) and Vehicle Maintenance Facilities (VMF). Duties included inspection, reporting, and knowledge of local, state, and federal regulations.

Site Access Liaison between former company and Chevron Environmental Management Company (EMC). Provided technical support for property ownership and securing site access agreements for well installation and site remediation for Chevron EMC. Duties included research of current property ownership and preparation of Offsite and Onsite Access Agreements with property owners.

Project Experience

Former Industrial Property, Fontana, CA, 2015. Former industrial property from the 1970's that was a cleared, vacant lot at the time of the site inspection. There were no distinguishing features that indicated previous heavy industrial use. The property owner had paved-over the entire property.

First Solar, Las Vegas, NV, 2013. Phase I ESA on the 200+ acre site for the photovoltaic production of solar power.

Former Safety Kleen Facility, Irwindale, CA, 2013. Former industrial property which stored hazardous waste awaiting transfer to disposal and treatment site.

US Ecology Site, Beatty, NV, 2013. Inspected property for proper storage and handling of hazardous waste.

MCAS Camp Pendleton and MCAS Miramar, CA, 2011. Provided technical support for property evaluations for Camp Pendleton Elementary Schools and proposed Military Family Housing at MCAS Miramar. Duties included research of historical data, regulatory agency database information, review of unexploded ordnance documentation, and report preparation for the U.S. Department of the Navy.

MCAS Camp Pendleton and MCAS Miramar, CA, 2009. Identified and collected information on Other Environmental Liabilities (OELs) for the U.S. Department of the Navy. An inventory of OEL assets included landfills, in-ground oil/water separators, paint booths, wash racks, underground storage tanks, aboveground storage tanks, and transformers with PCBs.

Glamis Gold Ltd. Glamis Imperial Project Environmental Impact Statement/Environmental Impact Report (EIS/EIR, CA, 1998. Participated in the Glamis Imperial Project EIS/EIR for a proposed Open-Pit Cyanide Heap-Leach Gold Mine dealing with the 1872 Mining Law and Native American Religious and Cultural Values. Responsibilities included background data collection for, and preparation of, environmental documents for the EIS/EIR, litigation support, and document research.

Affiliations

Environmental Consulting Professionals
California Association of Code Enforcement Officers (CACEO)

PARTNER

Suzi Rosen, PG, CHg
Principal and Managing Director
Environmental Solutions Group

Education

B.S. Geological Sciences *with Honors*, California State University, Fullerton, California
Graduate Course Work Geology and Hydrogeology, California State University, Los Angeles and Fullerton

Registrations

California Professional Geologist, PG #7622
California Certified Hydrogeologist, CHg #1075

Highlights

Ms. Rosen is a Principal and Managing Director of Partner's Environmental Solutions practice, with 25 years of consulting experience and is responsible for completing environmental due diligence, site assessment, remediation, environmental litigation support/expert opinion/testimony, and environmental compliance related projects in both the public and private sectors. Project involvement includes sites related to, brownfield/infill property redevelopment, public municipality contract support, commercial and residential property transactions oil (terminals and pipelines), ports, manufacturing, and airline industries. Ms. Rosen has extensive experience in full service environmental consulting from due diligence, through designing, implementing and monitoring various remedial technologies. Ms. Rosen's expertise includes closure negotiations with regulatory agencies throughout the country, litigation support, deposition, and expert testimony; and an ability to identify, convey, and minimize environmental related risk for her clients.

Experience

Chemical Facility, Santa Ana, California - Provide environmental litigation support for a property within the "South (groundwater) Basin" of Orange County. Serve as local liaison with Regional Water Quality Control Board and Department of Toxic Substances Control and provide third party review and technical input for remedial planning and execution documents.

Orange County Transportation Authority (OCTA) - Ms. Rosen served as Project Manager for the Placentia Avenue Grade Separation pre-excavation soil management planning. Ms. Rosen led the project team in conducting third party reviews of previous Phase I, Phase II and soil management plans and developing the approach for cost effective soil handling and RWQCB authorization for re-use.

Confidential Environmental Attorney - Work directly with environmental legal team supporting an environmental consultant undergoing mediation regarding standard of professional care met by consultant performing Phase I and Phase II assessments for a redevelopment project.

Confidential Food Service Client - Project manager for 10 property portfolios of properties located throughout California. Oversaw or completed all Phase I and Phase II ESAs associated with this property divestiture being completed by this nationwide food service company. Successfully completed the activities within budget and meeting schedule.

CityView (Developer), Wilshire/Hobart, Los Angeles, California - Served as the environmental consultant for this infill redevelopment project in Los Angeles, California. Prepared the initial Phase I ESA, follow up Phase II ESA, negotiated receipt of "No Further Action" letter from regulatory agency, developed Soil Management Plan, performed and managed excavation oversight and segregation of contaminated soils, and obtained 1166 VOC excavation permit from Air Quality Management District.

JH Four Development - Redevelopment project in Glendale, California. Provided 3rd party review of environmental investigations on behalf of property purchaser. Reviewed Phase I, Phase II, and Risk Assessment reports generated by former property owner's consultant and worked with Senior Health Risk Assessor to negotiate an unrestricted closure with the local regulatory agency. The former owner's consultant had received closure with a deed restriction for Industrial use only; with the re-negotiation and unrestricted closure, our team added potentially $1MM to the property re-sale value for our client.

Confidential Dry Cleaners, Glendale, California - Performing litigation support services to Paladin Law Group for a confidential dry cleaner project that is currently in litigation. Performing document discovery review, data summaries and timeline preparation, and third-party review of investigation work plan.

SJB Properties - Serves as Senior Project Manager overseeing project during pre-acquisition due diligence, investigation and remedial planning. Performed Phase I and Phase II ESAs and worked with project engineer to develop best- and worst-case cost scenarios for site remediation.

Alameda Corridor Transportation Authority (ACTA) Clean Truck Replacement Grant Program - Ms. Rosen independently generated this lead, successfully mobilized the internal technical team, and drove the sale to its completion. This $300K win was finalized within her first few months of employment with E2. Ms. Rosen served as Project/Client Manager for ACTA's Clean Truck Replacement Grant program and led the innovation of this project by facilitating the development of an automated, on-line grant application.

Robertson's Ready Mix/Mitsubishi - For 40+ concrete batch plants, Ms. Rosen performed due diligence related to a pending property sale. Ms. Rosen functioned as Project Manager for a 10-member team while completing plant inspections, coordinating permit compliance and historical environmental citations as well as evaluation of existing plant processes. This project was under expedited turn around guidelines and under her management, was successfully completed ahead of schedule and well under budget.

Los Angeles International Airport (airline classified) - Ms. Rosen served as the Project Geologist for the site that included a 22-acre free product plume with HVOC impacts to underlying groundwater as well as numerous other localized soil and groundwater plumes (jet-fuel, HVOC, and metals). Ms. Rosen was responsible for all aspects of subsurface investigation; delineation of contaminants; identification of sources; pilot testing and planning for a 250 recovery well installation program; oversight of field operations; data analysis and reporting of investigation results, and development and tracking of proposals and budgets. Ms. Rosen held the primary role in facilitating the development of the historical GIS/Key database which was subsequently used to create visual representations of HVOC impacts to groundwater and develop the conceptual site model. This effective data management and interpretation method led directly to the identification of off-site plume sources and a significant decrease in client's liability. The project required logistics with LAWA and airport security clearance for working on active taxi- and run-ways as well as extensive management between the airlines and LAWA and their respective attorneys. This project was highly sensitive due to the pending LAX airport expansion plan which was designed to add infrastructure in the free product recovery well field.

Gasoline Station Portfolio - Ms. Rosen served as technical design specialist for the development of a remedial approach and in- situ chemical injection program for remediation of petroleum hydrocarbon impacted groundwater at multiple gasoline station sites. Pre-remediation work included the evaluation of each site for possible risk-based closure and identification of data gaps that would impede effective implementation

of an in-situ remediation approach. Ms. Rosen was responsible for the overall success of the remediation program and facilitated regulatory approval, project implementation, and post injection data review including geochemical analysis and microbial assessments.

Wind-Farm Project, Palm Desert, California - Ms. Rosen served as the on-site inspector for a due diligence project and was the primary author of the report findings. The scope included on-site inspections of wind-farm infrastructure covering multiple square miles, a review of permitting and compliance documentation, previous Phase 1 Assessments for each operating parcel, and assessment of extensive Environmental Impact Reports focusing on potential harm to wildlife and impacts to local residents.

Confidential Oil Company, Puente Hills, California - Ms. Rosen functioned as Project Geologist performing field reconnaissance, mapping 2and aerial photograph interpretation to verify the presence of geologic structures potentially controlling contaminant transport. She facilitated geochemical forensic evaluation of chemical data to evaluate potential source points and coordinated collation of historical analytical data for export to a 3-D computer model.

Riverside Redevelopment Agency - Ms. Rosen managed the Phase I and Phase II assessments for the planned re-use of a former gas station facility located in Riverside, CA. Technical aspects of the project included soil, soil vapor, and groundwater contaminant pathways and evaluation of each from a risk-based approach.

BP/ARCO Terminals 2 and 3, Port of Long Beach, California - As project manager, Ms. Rosen developed proposals, tracked budgets, and oversaw site investigation work in and around tank farms. She contributed to and managed the technical team developing the conceptual site model and plans for remediation. Site investigation and effective data management and interpretation led to the identification of specific zones of contaminant mass resulting in cost savings to the remedial design.

BP/Hitco facility in Gardena, California - Ms. Rosen completed all aspects of site investigation work related to a HVOC groundwater plume extending >1mile off-site. Investigation work was conducted on- and off-site and included drilling, soil sampling, well installation, hydropunch sampling, soil vapor sampling, cone penetrometer testing, and aquifer testing. Ms. Rosen was also responsible for oversight of the source area excavation which required Level B protective equipment and was conducted inside an existing building. The excavation was completed working 24 hours/day with two 12-hour shifts in order to minimize downtime to building operations.

Deposition and Expert Services

2019, July 11 Hari Hara, LLC v. Heung Kyu Jang individually and dba One Hour Martinizing Cleaners; Team Enterprises, Inc.; Superior Court of the State of California – County of Los Angeles, North Valley District (deposed).

2021, February 19, United States District Court, Central District of California, Declaration of Suzi Rosen in Support of Plaintiffs' Opposition to Hussain M. Shaikh's Motion for Partial Summary Judgement, Case No.: 2:19-CV-02123-DMG-AGR, TC RICH, LLC, a California Limited Liability Company, Rifle Freight, Inc., a California corporation, Fleischer Custom Brokers, a sole proprietorship, Richard G. Fleischer, an individual, and Jacquelen Fleischer, an individual, Plaintiffs, v. Hussain M. Shaikh, an individual, Haroon Khan, an individual, and Shah Chemical Corporation, a California Corporation. Defendants.

2021, February 12 Expert Report, 132 W. 132nd Street, Los Angeles, CA 90061, Prepared for TC Rich, LLC Rifle Freight, Inc., Fleischer Customs Brokers, Richard G. Fleisher and Jacqueline Fleisher

2021, March 12 Rebuttal to Expert Report of Anthony Brown, Former Pacifica Chemical Site, United States District Court, Central District of California

2021 April Expert Testimony TC Rich, LLC v Shaikh, United States District Court, Central District of California

Affiliations

Los Angeles County Bar Association (LACBA) Environmental Executive Committee Member
CORE Environmental – Board of Director
National Association of Industrial and Office Properties (NAIOP)
Michigan Association of Environmental Professional
Groundwater Resources Association (GRA) – Member
National Groundwater Association (NGWA)

Speaking

2020 EIA Annual Conference, Seattle, WA *Successful VOC Vapor Intrusion Mitigation via Floor Coating and Engineering Controls - Case Study and Lessons Learned*
2019 IAQ Annual Meeting & Expo, West Palm Beach, FL *Successful VOC Vapor Intrusion Mitigation via Floor Coating and Engineering Controls - Case Study and Lessons Learned*
2018, April - California Lawyers Association 37th Annual Real Property Law Section Retreat - San Francisco, California *Looking for "Buried Treasures" And Then Doing The Deal: The Latest Challenges And Tips in Developing, Selling, Buying and Leasing Contaminated Sites*
2017 California Bar Association Environmental Symposium – Yosemite, California - *Looking for "Buried Treasures" And Then Doing The Deal: The Latest Challenges And Tips in Developing, Selling, Buying and Leasing Contaminated Sites*
2016 Los Angeles County Bar Association Spring Symposium: *Managing the Complex Challenges of Regional Multi-Party Groundwater Plumes*
2015 Parker Milliken Annual Environmental Law Symposium: *Finding Buried Treasure or Investigating Fool's Gold: Investigating and Remediating Properties before Making the Deal*
2014 13th Annual Los Angeles County Bar Association Environmental Law Fall Symposium: *USTs and Chlorinated Solvents: Changes and Developments Impacting Cleanup Actions*
2010 Annual AEHS Conference, San Diego, California: *Remediation of shallow groundwater plume near Puget Sound using Per carbonate based chemical oxidation*

Publications

1998, *Sequence Stratigraphy of the Middle Ordovician Eureka Quartzite, southern Nevada-eastern California:* Abstracts with Programs, Geological Society of America v. 30 no. 5 p. 72

Contact

srosen@partneresi.com
(949) 214-6470

Jeffrey Lasker, ACM/LBP
Project Assessor

Education

B.S., Environmental Engineering, Colorado State University
M.S., Environmental Engineering, Colorado State University

Registrations

Asbestos Containing Materials (ACM) Building Inspector, State of Colorado
Lead Based Paint (LBP) Building Inspector, Stare of Colorado

Training

40 hour OSHA Training, 2014
8-hour OSHA Refresher, 2016

Highlights

6 years of experience as an Environmental Engineer
Energy Audits
Asbestos Inspections
Phase I and II Environmental Site Assessments (ESA)
Property Condition Reports (PCA)

Experience Summary

Mr. Lasker is a project assessor for Partner Engineering and Science, Inc. and is familiar with all aspects of due diligence property assessments and reporting standards, including Fannie Mae DUS and Freddie Mac HUD. He is especially knowledgeable on EPA's All Appropriate Inquiry and ASTM E1527-13 and has worked with diverse client groups with unique client-specific scopes of work and reporting requirements.

Mr. Lasker has conducted and managed hundreds of Phase I ESAs on multi-family properties, commercial office buildings, shopping centers, gasoline stations, hotels, dry cleaners, auto repair shops, agricultural land, telecommunication tower sites, service stations, and industrial facilities. He has completed over 20 Phase II ESA's to determine areas of concern including former industrial chemical storage areas, abandoned warehouses, gasoline stations and commercial retail strip malls.

Mr. Lasker has completed over one hundred PCA's on commercial retail sites, residential properties, high rise office buildings and office complexes, multi-family developments, government installations, shopping centers, fast food restaurant and industrial facilities.

In additions to these duties, Mr. Lasker has developed proficiency in conducting energy audits, benchmarking LEED-related services, water conservation and efficiency, and has regularly provided detailed reports within strict deadlines. He has completed over twenty ACM building inspections including limited and full building analysis and sample collection, radon testing, and mold sampling.

Currently, Mr. Lasker is training to provide senior level PCA review support, conducts in-field Phase I ESAs, Phase II ESA's, transaction screens, PCAs and other product types, and is extensively involved in project completion, client communications, maintaining an emphasis on providing exemplary client service.

Project Experience

Warehouse Building, Denver, CO. Mr. Lasker performed a licensed certified asbestos building inspection for a commercial industrial warehouse followed by documentation and oversight over a three-month period during the ACM abatement project.

Industrial Property, Mobile, AL. Mr. Lasker performed a Phase I Environmental Assessment for a large-scale 100-acre industrial steel fabrication facility.

Sheraton Hotel, Downton Denver, CO. Mr. Lasker performed a detailed equity level Property Condition Assessment and Phase I for the historic downtown Denver Sheraton Hotel buildings.

High Rise Multifamily Building, Denver, CO. Mr. Lasker performed an agency level Fannie qualified Property Condition Assessment for a 21-story County Club Towers apartment building.

Municipal Office Building, Denver, CO. Mr. Lasker performed a Property Condition Assessment and Phase I for the City of Denver Region 8 EPA headquarter building.

Multi-Family Property, Lakewood, CO. Mr. Lasker performed a Property Condition Assessment, Freddie Mac Green Up Energy Audit and Phase I for the 512 unit Ashford 88 multi-family apartment complex.

Contact

jlasker@partneresi.com

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E.2 - Shallow Soils Assessment

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PARTNER
Engineering and Science, Inc.

June 28, 2022

Mr. Rishi Thakkar
Dedeaux Properties
100 Wilshire Boulevard, Suite 250
Santa Monica, California 90401

Subject: Shallow Soils Assessment
1151 Palmyrita Avenue
Riverside, California 92507
Partner Project No. ES22-367348

Dear Mr. Thakkar:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Shallow Soils Assessment* of the abovementioned address (the "subject property").

This assessment included a site reconnaissance, soil sampling and observations to assess if a release had occurred in the vicinity of railroad spur. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (949) 214-6470.

Sincerely,

Suzi Rosen, PG, CHg
Principal and Managing Director

Executive Summary

Partner Engineering and Science, Inc. (Partner) prepared a Phase I Environmental Site Assessment report (ESA) for the subject property on behalf of Dedeaux Properties in April 2022. The Phase I ESA identified surficial staining along the western-most portion of the railroad spurs of the subject property as a Recognized Environmental Condition (REC).

Partner performed a Shallow Soils Assessment of the REC and railroad spur by collecting near-surface soil samples from 2 feet below ground surface (bgs) at ten locations. Partner analyzed the soil samples for Carbon Chain Total Petroleum Hydrocarbons (TPH-cc), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and metals.

Laboratory analysis results from all ten soil samples did not identify contaminants at concentrations exceeding regulatory screening levels. Based on the field observations of the area and detailed observation of soil and laboratory analysis results, the visibly surface stained area is considered the result of de minimis spillage and does not warrant any further action, and soils along the railroad spur also do not warrant further investigation or remedial action.

Introduction

Dedeaux Properties engaged Partner to conduct a Shallow Soils Assessment of the REC located along the railroad spur on June 9, 2022. The subject property is located on the north side of Palmyrita Avenue within a mixed commercial and residential area. Please refer to Figure 1 showing the Site Location.

Property Description

The subject property consists of a total of 13.6 acres of land. The western portion of the subject property consists of 1.67 acres of vacant, undeveloped land (950 Iowa Avenue) The eastern portion of the subject property consists of 11.93 acres of land improved with a single-story, metal distribution warehouse building, associated paved surface parking, three railroad spurs, and associated landscaping. Onsite operations consist of warehousing and distribution of nylon and vinyl fencing materials. In addition to the current structure, the subject property is also improved with asphalt parking area, an exterior asphalt-paved storage area, perimeter fencing and limited landscaping. The subject property is located on the north side of Palmyrita Avenue within a mixed commercial and industrial area of Riverside County. Please refer to the table below for further description of the subject property:

Subject Property Data	
Addresses:	1151 Palmyrita Avenue, Riverside, California
Property Use:	Commercial/Warehouse Distribution
Land Acreage (Ac):	13.6 Total Ac
Number of Buildings:	One
Number of Floors:	One
Date of Construction:	1975
Assessor's Parcel Number (APN):	247-170-030 (950 Iowa Avenue) and 247-170-039 (1151 Palmyrita Avenue
Type of Construction:	Metal Siding, slab-on-grade concrete foundation
Current Tenants:	Barrette Wood USA and Barrette Outdoor Living
Site Assessment Performed By:	Ramy Rabie of Partner
Site Assessment Conducted On:	June 9, 2022

Please refer to Figure 2 showing the specific location of the railroad spur and related REC assessment area on the subject property.

Site History

According to the review of available historical sources, the subject property was formerly undeveloped as early as 1931; developed agriculturally between 1931 to at least 1974; and developed with the current structure in 1975. By 2003, the eastern portion of the subject property was developed with the current parking areas and two railroad spurs.

In April 2022 during the Phase I ESA field observation by Partner, a large, stained area was observed near the western end of the railroad spur along the north side of the warehouse building. The presence of the stained area along the railroad spur was considered a REC and additional assessment was recommended.

Shallow Soils Assessment

Partner notified Dig Alert 811 of the up-coming shallow soils assessment, and Dig Alert subsequently issued Ticket B221580506-00B on June 7, 2022. Partner marked the boring locations with chalk and engaged Ground Penetrating Radar Services (GPRS) to locate underground utilities in the vicinity of the area and proposed boring locations. Ten borings were cleared of utilities on the morning of June 9, 2022, in preparation for drilling and soil sampling, by GPRS.

Partner engaged ABC Liovin Drilling (ABC) to operate the air-knife rig and collect soil samples at the ten locations (SB1-2 through SB10-2) shown on Figure 2. Boring locations SB1-2 through SB7-2 were selected to occur in the general vicinity of the REC, with SB-8 through SB-10 extending along the railroad spur to the east of the REC. Please refer to Table 1 for the scope of the Shallow Soils Assessment, including the total depth and sample interval from the drilling.

ABC Liovin Drilling, Inc. used a truck mounted air-knife to conduct boring advancement and sampling on June 9, 2022. The air-knife was utilized in lieu of standard direct-push methods due to difficult conditions related to the railroad ballast in the vicinity of the spur. The materials encountered in each boring consisted of approximately 12-inches of coarse, railroad aggregate ballast, atop brown, fine to medium grained sand with trace gravel. As a result of the shallow boring depths, no lithologic logs were prepared.

As the drill tube was advanced, Partner collected soil samples at approximately 2 feet bgs. Partner screened the soil samples with a Photoionization Device (PID), calibrated to Hexane at 100 parts per million (ppm). Please refer to the attached PID calibration sheet (Appendix A). No PID readings above 10.0 ppm were observed in any of the soil boring samples.

Partner prepared soil samples into glass sampling jars for TPH, VOCs, SVOCs, and metals analysis. Partner recorded the sample identification on chain of custody (COC) and placed each sample in a chilled cooler. Partner transported the soil samples to Sunstar laboratories, Inc. (Sunstar) on the same day of collection, and submitted the soil samples for analysis, to their lab in Lake Forest, California. Sunstar issued the final soil analysis results on June 14, 2022, with full laboratory analysis results and COC (Appendix B).

One soil sample per boring (all samples collected) were analyzed by Sunstar for TPH-cc in accordance with Environmental Protection Agency (EPA) Method 8015M, for VOCs in accordance with EPA method 8260B, for SVOCs in accordance with EPA Method 8270, and for metals in accordance with EPA Method 6010B.

Results and Findings

Partner notes that soils from the ten borings generally consisted of coarse railroad ballast rock over finer grained silty sands and clays to two feet bgs. All borings terminated in the silts and clays, with no readings greater than 20 parts per million (ppm) on the PID, and no record of oil staining on the samples.

Concentrations of all analytes were either non-detect (VOCs and SVOCs), less than residential and commercial/industrial soil screening levels (TPH-cc) or within background concentrations for metals, barium, cobalt, chromium, copper, nickel, lead, vanadium and zinc.

Please refer to Table 1 for the Scope of Shallow Soils Assessment, Table 2 for TPH-CC, VOCs and SVOCc Analysis Results, and Table 3 for Metals Analysis Results.

Conclusions and Recommendations

Based on the field observations of the area, and detailed observation of soil and laboratory analysis results, this shallow soil assessment has determined the stained soil to be the result of *de minimis* surface spillage of motor oil range (MORO) constituents. Additionally, contaminant impacts along the railroad spur were not identified. Consequently, no additional assessment is recommended, and the REC identified in Partner's Phase I ESA should no longer be considered a REC.

Closing

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (949) 214-6470.

Regards,

Bruce Eppler, PG
Senior Project Manager

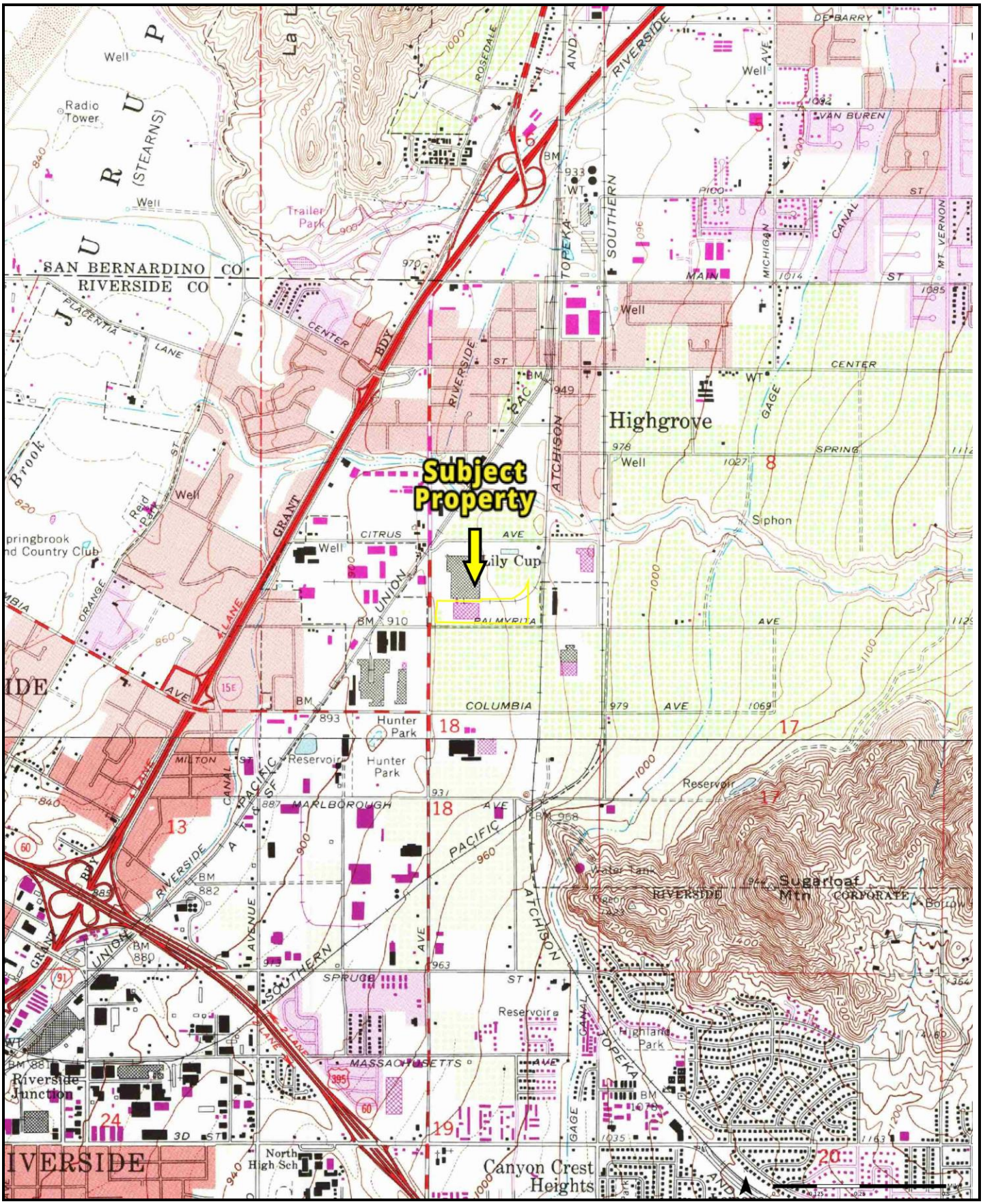
Suzi Rosen, PG, CHg
Principal and Managing Director

FIGURES

1 SITE LOCATION MAP

2 SOIL BORING LOCATIONS MAP

PARTNER



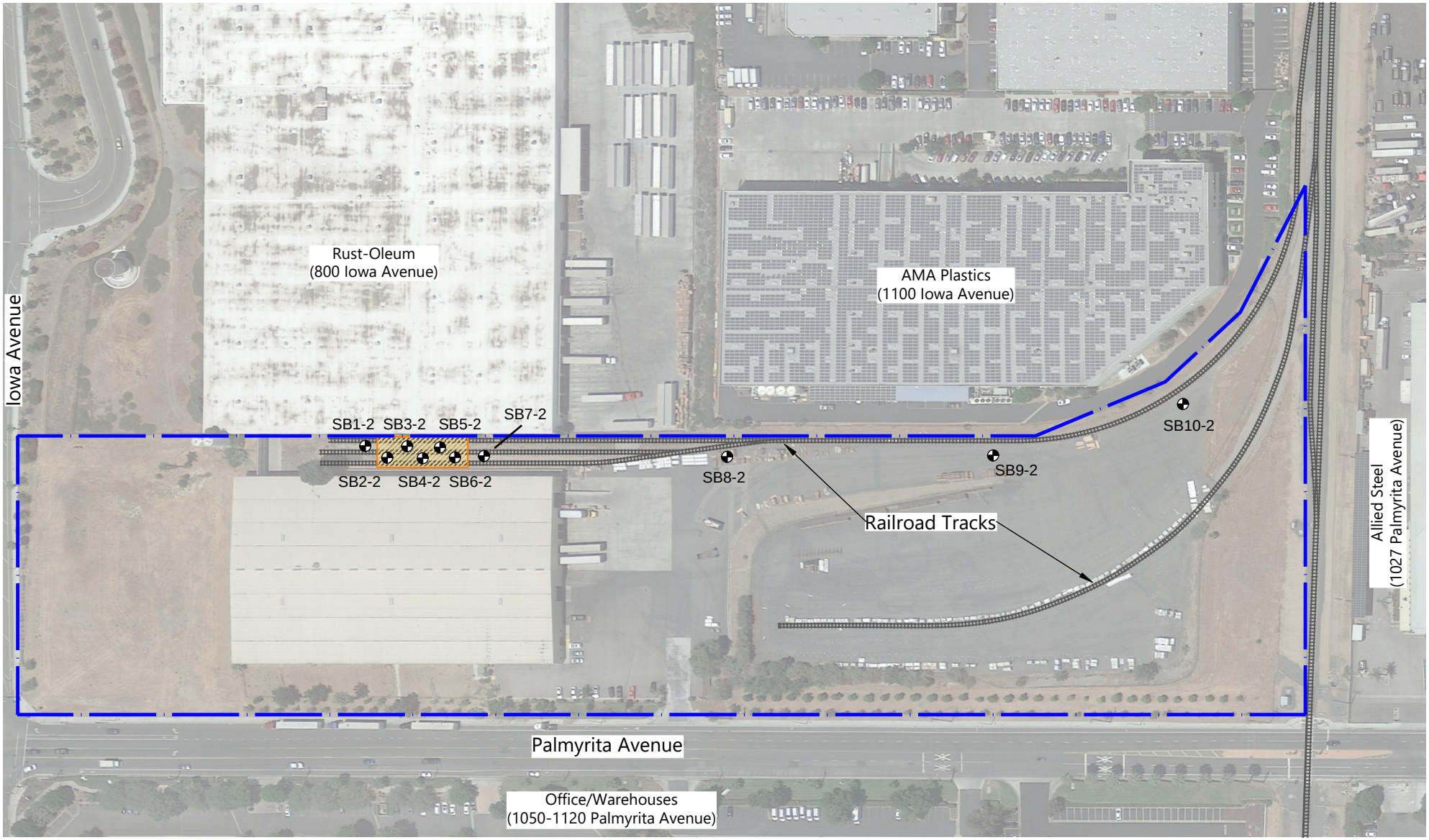
N

USGS 7.5 Minute *San Bernardino South* Quadrangle
Created: 1980

KEY:
Subject Property

FIGURE 1: SITE LOCATION MAP
Project No. 22-367348

PARTNER



Legend and Notes:

- Site Boundary
- SB1-2 Soil Boring Location Number and Depth (feet below ground surface)
- Stained Soil Area

N

50' 0' 50' 100'

Approximate Scale

Title: **Soil Boring Locations Map**			
Figure: **2**	Prepared By: **AS**	Date: **June 2022**	Project Number: **ES22-367348**

Address:
1151 Palmyrita Avenue
Riverside, California 92507

PARTNER
Engineering and Science, Inc.

TABLES

1 SUMMARY OF SCOPE OF WORK

2 SOIL ANALYSIS RESULTS – TPH-CC, VOCS, SVOCS

3 SOIL ANALYSIS RESULTS - METALS

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Table 1: Summary of Investigation Scope
1151 Palmyrita Avenue
Riverside, California 92507
Partner Project Number ES22-367348
June 2022

Boring Identification	Location	Matrix Sampled	Depth (feet bgs)	Analysis
Partner ESI Shallow Soils Assessment				
SB1-2	West of Stained Area REC	Soil	2	TPH, VOCs,SVOCs Metals
SB2-2	Stained Area REC	Soil	2	TPH, VOCs, Metals
SB3-2	Stained Area REC	Soil	2	TPH, VOCs, Metals
SB4-2	Stained Area REC	Soil	2	TPH, VOCs, Metals
SB5-2	Stained Area REC	Soil	2	TPH, VOCs,SVOCs Metals
SB6-2	Stained Area REC	Soil	2	TPH, VOCs,SVOCs Metals
SB7-2	East of Stained Area REC	Soil	2	TPH, VOCs,SVOCs Metals
SB8-2	Railroad Spur East of REC	Soil	2	TPH, VOCs,SVOCs Metals
SB9-2	Railroad Spur East of REC	Soil	2	TPH, VOCs,SVOCs Metals
SB10-2	Railroad Spur East of REC	Soil	2	TPH, VOCs,SVOCs Metals

Notes:

bgs = below ground surface
Listed sample depths were analyzed for total petroleum hydrocarbons (TPH) in accordance with United States Environmental Protection Agency (EPA) Method 8015M, volatile organic compounds (VOCs) in accordance with EPA Method 8260B, Semi-volatile organic compounds (SVOCs)in accordance with EPA Method 8270, and California Administrative Manual (CAM) 17 Title 22 metals in accordance with EPA Method 6010B/7471A.

Table 2: Soil Analyses Results TPH-CC, VOCs and SVOCs
1151 Palmyrita Avenue
Riverside, California 92507
Partner Project Number ES22-367348
June 2022

EPA Method			TPH-CC via 8105B (mg/kg)			VOCs via 8260B	SVOCs via 8270C
Sample Identification	Sample Depth (feet bgs)	Date Sampled	GRO	DRO	MORO	Volatile Organice Compounds	Semi-Volitile Organic Compounds
		Maximum SSLs	**500**	**1,000**	**10,000***	**NA**	**NA**
SB1-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB2-2	**2**	**6/2/2022**	ND	ND	**49.0**	ND	ND
SB3-2	**2**	**6/2/2022**	ND	ND	**40.0**	ND	ND
SB4-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB5-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB6-2	**2**	**6/2/2022**	ND	ND	**13.0**	ND	ND
SB7-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB8-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB9-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND
SB10-2	**2**	**6/2/2022**	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
TPH CC = Total Petroleum Hydrocarbons - Carbon Chain
GRO = Gasoline range organics
DRO = Diesel range organics
MORO = Motor oil range organics
VOCs = volatile organic compounds
SVOCs = Semi volatile organic compounds
mg/kg = milligram per kilogram
bgs = below ground surface
SSLs = soil screening levels (Los Angeles Regional Water Quality Control
Board - April 27, 2004) for impacted soil between 20-150 above groundwater
* Not stated, but assumed conservative screening level based on its proportionate relation to GRO
Values in **bold** exceed laboratory Reporting Limits (RLs)
ND = not detected above laboratory RLs

Table 3: Soil Analysis Results - Metals
1151 Palmyrita Avenue
Riverside, California 92507
Partner Project Number ES22-367348
June 2022

EPA Method			Title 22 - California Administrative Manual (CAM) 17 Metals via EPA Methods 6010B/7471A (mg/kg)																
Sample Identification	Sample Depth (feet bgs)	Date Sampled	Silver (Ag)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Antimony (Sb)	Selenium (Se)	Thallium (Tl)	Vanadium (V)	Zinc (Zn)	Boron (B)	Mercury* (Hg)
Residential Soil RSL			**39**	**0.11**	**1,500**	**1,600**	**910**	**420**	**NE**	**310**	**39**	**15,000**	**80**	**3.1**	**39**	**0.078**	**39**	**2,300**	**NE**	**1.0**
Commercial/Industrial Soil RSL			**580**	**0.36**	**22,000**	**6,900**	**4,000**	**1900**	**NE**	**47,000**	**580**	**64,000**	**320**	**47**	**580**	**1.2**	**580**	**35,000**	**NE**	**4.4**
TTLC			**500**	**500**	**10,000**	**75**	**100**	**8,000**	**2,500**	**2,500**	**3,500**	**2,000**	**1,000**	**500**	**100**	**700**	**2,400**	**5,000**	**NE**	**20**
10 x STLC			**50**	**50**	**1,000**	**8**	**10**	**800**	**50**	**250**	**3,500**	**200**	**50**	**150**	**10**	**70**	**240**	**2,500**	**NE**	**2**
Background Concentrations [A]			**0-2.23**	**12[B]**	**299-719**	**0.76-1.8**	**0.05-0.67**	**5.7-24.1**	**0-345**	**9.4-48**	**0-2.8**	**0-137**	**10.1-37.7**	**0.21-0.99**	**0-0.142**	**0.37-0.75**	**59-165**	**117-181**	**NA**	**0.05-0.47**
SB1-2	**2**	**5/10/2022**	ND	ND	**85.0**	ND	ND	**5.20**	**6.90**	**5.60**	ND	**5.30**	ND	ND	ND	ND	**20.0**	**30.0**	ND	ND
SB2-2	**2**	**5/10/2022**	ND	ND	**25.0**	ND	ND	**3.60**	**6.40**	**4.70**	ND	**4.70**	**3.80**	ND	ND	ND	**17.0**	**21.0**	ND	ND
SB3-2	**2**	**5/10/2022**	ND	ND	**120**	ND	ND	**7.20**	**9.60**	**6.90**	ND	ND	ND	ND	ND	ND	**27.0**	**42.0**	ND	ND
SB4-2	**2**	**5/10/2022**	ND	ND	**69.0**	ND	ND	**3.90**	**4.80**	**3.70**	ND	**3.50**	ND	ND	ND	ND	**15.0**	**23.0**	ND	ND
SB5-2	**2**	**5/10/2022**	ND	ND	**110**	ND	ND	**6.20**	**7.50**	**5.60**	ND	**5.00**	ND	ND	ND	ND	**24.0**	**40.0**	ND	ND
SB6-2	**2**	**5/10/2022**	ND	ND	**96.0**	ND	ND	**6.20**	**8.10**	**7.10**	ND	**5.90**	**3.40**	ND	ND	ND	**23.0**	**39.0**	ND	ND
SB7-2	**2**	**5/10/2022**	ND	ND	**120**	ND	ND	**7.60**	**11.0**	**7.20**	ND	**7.70**	**3.20**	ND	ND	ND	**30.0**	**41.0**	ND	ND
SB8-2	**2**	**5/10/2022**	ND	ND	**130**	ND	ND	**6.40**	**7.60**	**5.40**	ND	**5.00**	ND	ND	ND	ND	**24.0**	**42.0**	ND	ND
SB9-2	**2**	**5/10/2022**	ND	ND	**88.0**	ND	ND	**5.00**	**7.70**	**7.30**	ND	**5.70**	**6.20**	ND	ND	ND	**20.0**	**40.0**	ND	ND
SB10-2	**2**	**5/10/2022**	ND	ND	**180**	ND	ND	**6.90**	**8.00**	**4.80**	ND	**4.80**	ND	ND	ND	ND	**27.0**	**48.0**	ND	ND

Notes:
Analysis for metals was performed in accordance with EPA Method 6010B, except where noted
*Mercury analysis was performed in accordance with EPA Method via Cold Vapor Extraction
EPA = Environmental Protection Agency
mg/kg = milligram per kilogram
bgs = below ground surface
RSL = June 2020 Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 Regional Screening Levels. If DTSC RSLs were unavailable, May 2021 EPA RSLs were utilized.
TTLC = total threshold limit concentration; any constituent exceeding TTLC waste characterization criteria is considered a hazardous waste in California
STLC = soluble threshold limit concentration; TTLC results are compared to 10x the STLC to determine if TCLP analysis is required for further waste characterization
TCLP = toxicity characteristic leaching procedure
[A] From Kearney Foundation of Soil Science March 1996 report "Background Concentrations of Trace and Major Elements in California Soils." Background concentrations of metals are considered to be within one standard deviation from the mean metal concentrations determined by the study.
[B] From Department of Toxic Substances Control (DTSC) March 2008 report "Determination of a Southern California Regional Background Arsenic Concentration in Soil."
Yellow highlighted concentrations exceed Residential Soil RSL.
Orange highlighted concentrations exceed Commercial/Industrial Soil RSL.
Light blue highlighted concentrations exceed the TTLC
Blue highlighted concentrations exceed ten times the STLC
NE = not established
Values in **bold** exceed laboratory Reporting Limits (RLs)
ND = not detected above laboratory RLs

APPENDIX A: INSTRUMENT CALIBRATION RECORD

PARTNER

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
11397 Slater Ave.
Fountain Valley, CA 92708
Toll-free: 888-620-7463

Pine Environmental Services, Inc.

Instrument ID 38786
Description MiniRae 3000
Calibrated 6/21/2022 7:37:42PM

Manufacturer Rae Systems
Model Number PGM-7320
Serial Number/ Lot Number 592-919184
Location California
Department

State Certified
Status Pass
Temp °C 27.9
Humidity % 44

Calibration Specifications

Group # 1
Group Name VOC
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	PPM	100.00	PPM	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
CA ISO 100PPM (EAQ-248-100-2)	CA ISO 100PPM (EAQ-248-100-2) 34L	Gasco	31721	EAQ-248-100-2		5/2/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Andrew Bettencourt

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

APPENDIX B: LABORATORY ANALYSIS REPORT

PARTNER

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

14 June 2022

Bruce Eppler
Partner Engineering & Science, Inc.--Tor
2154 Torrance Blvd., Suite 200
Torrance, CA 90501

RE: 1151 Palmyrita ave

Enclosed are the results of analyses for samples received by the laboratory on 06/09/22 12:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joann Marroquin
Director of Operations

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-2	T221646-01	Soil	06/09/22 08:45	06/09/22 12:00
SB2-2	T221646-02	Soil	06/09/22 08:55	06/09/22 12:00
SB3-2	T221646-03	Soil	06/09/22 09:00	06/09/22 12:00
SB4-2	T221646-04	Soil	06/09/22 09:15	06/09/22 12:00
SB5-2	T221646-05	Soil	06/09/22 09:25	06/09/22 12:00
SB6-2	T221646-06	Soil	06/09/22 09:45	06/09/22 12:00
SB7-2	T221646-07	Soil	06/09/22 10:00	06/09/22 12:00
SB8-2	T221646-08	Soil	06/09/22 10:15	06/09/22 12:00
SB9-2	T221646-09	Soil	06/09/22 10:25	06/09/22 12:00
SB10-2	T221646-10	Soil	06/09/22 10:35	06/09/22 12:00

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

DETECTIONS SUMMARY

Sample ID: SB1-2 **Laboratory ID:** T221646-01

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**85**	1.0	mg/kg	EPA 6010b	
Chromium	**6.9**	2.0	mg/kg	EPA 6010b	
Cobalt	**5.2**	2.0	mg/kg	EPA 6010b	
Copper	**5.6**	1.0	mg/kg	EPA 6010b	
Nickel	**5.3**	2.0	mg/kg	EPA 6010b	
Vanadium	**20**	5.0	mg/kg	EPA 6010b	
Zinc	**30**	1.0	mg/kg	EPA 6010b	

Sample ID: SB2-2 **Laboratory ID:** T221646-02

Analyte	Result	Reporting Limit	Units	Method	Notes
C29-C40 (MORO)	**49**	10	mg/kg	EPA 8015B	D-06
Barium	**25**	1.0	mg/kg	EPA 6010b	
Chromium	**6.4**	2.0	mg/kg	EPA 6010b	
Cobalt	**3.6**	2.0	mg/kg	EPA 6010b	
Copper	**4.7**	1.0	mg/kg	EPA 6010b	
Lead	**3.8**	3.0	mg/kg	EPA 6010b	
Nickel	**4.7**	2.0	mg/kg	EPA 6010b	
Vanadium	**17**	5.0	mg/kg	EPA 6010b	
Zinc	**21**	1.0	mg/kg	EPA 6010b	

Sample ID: SB3-2 **Laboratory ID:** T221646-03

Analyte	Result	Reporting Limit	Units	Method	Notes
C29-C40 (MORO)	**40**	10	mg/kg	EPA 8015B	D-06
Barium	**120**	1.0	mg/kg	EPA 6010b	
Chromium	**9.6**	2.0	mg/kg	EPA 6010b	
Cobalt	**7.2**	2.0	mg/kg	EPA 6010b	
Copper	**6.9**	1.0	mg/kg	EPA 6010b	
Nickel	**6.9**	2.0	mg/kg	EPA 6010b	
Vanadium	**27**	5.0	mg/kg	EPA 6010b	

SunStar Laboratories, Inc.



Joann Marroquin, Director of Operations

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Sample ID: SB3-2 **Laboratory ID:** T221646-03

Analyte	Result	Reporting Limit	Units	Method	Notes
Zinc	**42**	1.0	mg/kg	EPA 6010b	

Sample ID: SB4-2 **Laboratory ID:** T221646-04

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**69**	1.0	mg/kg	EPA 6010b	
Chromium	**4.8**	2.0	mg/kg	EPA 6010b	
Cobalt	**3.9**	2.0	mg/kg	EPA 6010b	
Copper	**3.7**	1.0	mg/kg	EPA 6010b	
Nickel	**3.5**	2.0	mg/kg	EPA 6010b	
Vanadium	**15**	5.0	mg/kg	EPA 6010b	
Zinc	**23**	1.0	mg/kg	EPA 6010b	

Sample ID: SB5-2 **Laboratory ID:** T221646-05

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**110**	1.0	mg/kg	EPA 6010b	
Chromium	**7.5**	2.0	mg/kg	EPA 6010b	
Cobalt	**6.2**	2.0	mg/kg	EPA 6010b	
Copper	**5.6**	1.0	mg/kg	EPA 6010b	
Nickel	**5.0**	2.0	mg/kg	EPA 6010b	
Vanadium	**24**	5.0	mg/kg	EPA 6010b	
Zinc	**40**	1.0	mg/kg	EPA 6010b	

Sample ID: SB6-2 **Laboratory ID:** T221646-06

Analyte	Result	Reporting Limit	Units	Method	Notes
C29-C40 (MORO)	**13**	10	mg/kg	EPA 8015B	D-06
Barium	**96**	1.0	mg/kg	EPA 6010b	
Chromium	**8.1**	2.0	mg/kg	EPA 6010b	
Cobalt	**6.2**	2.0	mg/kg	EPA 6010b	
Copper	**7.1**	1.0	mg/kg	EPA 6010b	
Lead	**3.4**	3.0	mg/kg	EPA 6010b	
Nickel	**5.9**	2.0	mg/kg	EPA 6010b	

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Joann Marroquin

Joann Marroquin, Director of Operations

SunStar Laboratories, Inc.
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949.297.5020 Phone
949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Sample ID: SB6-2 **Laboratory ID:** T221646-06

Analyte	Result	Reporting Limit	Units	Method	Notes
Vanadium	**23**	5.0	mg/kg	EPA 6010b	
Zinc	**39**	1.0	mg/kg	EPA 6010b	

Sample ID: SB7-2 **Laboratory ID:** T221646-07

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**120**	1.0	mg/kg	EPA 6010b	
Chromium	**11**	2.0	mg/kg	EPA 6010b	
Cobalt	**7.6**	2.0	mg/kg	EPA 6010b	
Copper	**7.2**	1.0	mg/kg	EPA 6010b	
Lead	**3.2**	3.0	mg/kg	EPA 6010b	
Nickel	**7.7**	2.0	mg/kg	EPA 6010b	
Vanadium	**30**	5.0	mg/kg	EPA 6010b	
Zinc	**41**	1.0	mg/kg	EPA 6010b	

Sample ID: SB8-2 **Laboratory ID:** T221646-08

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**130**	1.0	mg/kg	EPA 6010b	
Chromium	**7.6**	2.0	mg/kg	EPA 6010b	
Cobalt	**6.4**	2.0	mg/kg	EPA 6010b	
Copper	**5.4**	1.0	mg/kg	EPA 6010b	
Nickel	**5.0**	2.0	mg/kg	EPA 6010b	
Vanadium	**24**	5.0	mg/kg	EPA 6010b	
Zinc	**42**	1.0	mg/kg	EPA 6010b	

Sample ID: SB9-2 **Laboratory ID:** T221646-09

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**88**	1.0	mg/kg	EPA 6010b	
Chromium	**7.7**	2.0	mg/kg	EPA 6010b	
Cobalt	**5.0**	2.0	mg/kg	EPA 6010b	
Copper	**7.3**	1.0	mg/kg	EPA 6010b	
Lead	**6.2**	3.0	mg/kg	EPA 6010b	

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Sample ID: SB9-2 **Laboratory ID:** T221646-09

Analyte	Result	Reporting Limit	Units	Method	Notes
Nickel	**5.7**	2.0	mg/kg	EPA 6010b	
Vanadium	**20**	5.0	mg/kg	EPA 6010b	
Zinc	**40**	1.0	mg/kg	EPA 6010b	

Sample ID: SB10-2 **Laboratory ID:** T221646-10

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**180**	1.0	mg/kg	EPA 6010b	
Chromium	**8.0**	2.0	mg/kg	EPA 6010b	
Cobalt	**6.9**	2.0	mg/kg	EPA 6010b	
Copper	**4.8**	1.0	mg/kg	EPA 6010b	
Nickel	**4.8**	2.0	mg/kg	EPA 6010b	
Vanadium	**27**	5.0	mg/kg	EPA 6010b	
Zinc	**48**	1.0	mg/kg	EPA 6010b	

SunStar Laboratories, Inc.



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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB1-2

T221646-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*93.0 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**85**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**6.9**	2.0	"	"	"	"	"	"	
Cobalt	**5.2**	2.0	"	"	"	"	"	"	
Copper	**5.6**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**5.3**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**20**	5.0	"	"	"	"	"	"	
Zinc	**30**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB1-2

T221646-01 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB1-2

T221646-01 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*	*75.4-139*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB1-2

T221646-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*106 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB1-2

T221646-01 (Soil)

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Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB1-2

T221646-01 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*69.1 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*76.9 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*76.6 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*78.1 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*81.3 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*86.5 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB2-2

T221646-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	**49**	10	"	"	"	"	"	"	D-06
Surrogate: p-Terphenyl		*93.4 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**25**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/13/22	"	
Cadmium	ND	2.0	"	"	"	"	06/13/22	"	
Chromium	**6.4**	2.0	"	"	"	"	"	"	
Cobalt	**3.6**	2.0	"	"	"	"	"	"	
Copper	**4.7**	1.0	"	"	"	"	"	"	
Lead	**3.8**	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**4.7**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**17**	5.0	"	"	"	"	"	"	
Zinc	**21**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB2-2

T221646-02 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB2-2

T221646-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*75.4-139*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB2-2

T221646-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*106 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

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T221646-02 (Soil)

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Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB2-2

T221646-02 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*80.1 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*89.4 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*88.5 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*88.1 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*91.6 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*90.0 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	D-06
C29-C40 (MORO)	**40**	10	"	"	"	"	"	"	D-06
Surrogate: p-Terphenyl		*89.0 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**120**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**9.6**	2.0	"	"	"	"	"	"	
Cobalt	**7.2**	2.0	"	"	"	"	"	"	
Copper	**6.9**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**6.9**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**27**	5.0	"	"	"	"	"	"	
Zinc	**42**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*75.4-139*		"	"	"	"	

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SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*107 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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Joann Marroquin

Joann Marroquin, Director of Operations

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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SB3-2

T221646-03 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*61.1 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*72.6 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*70.4 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*75.2 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*77.1 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*81.0 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*90.5 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**69**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**4.8**	2.0	"	"	"	"	"	"	
Cobalt	**3.9**	2.0	"	"	"	"	"	"	
Copper	**3.7**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**3.5**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**15**	5.0	"	"	"	"	"	"	
Zinc	**23**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.9 %*	*75.4-139*		"	"	"	"	

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SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*107 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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Joann Marroquin

Joann Marroquin, Director of Operations

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB4-2

T221646-04 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*67.0 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*80.3 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*79.5 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*78.9 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*81.9 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*81.2 %*	*29.1-130*		"	"	"	"	

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*93.0 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**110**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/13/22	"	
Cadmium	ND	2.0	"	"	"	"	06/13/22	"	
Chromium	**7.5**	2.0	"	"	"	"	"	"	
Cobalt	**6.2**	2.0	"	"	"	"	"	"	
Copper	**5.6**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**5.0**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**24**	5.0	"	"	"	"	"	"	
Zinc	**40**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.2 %*		*75.4-139*	"	"	"	"	

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SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*108 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*99.5 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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SB5-2

T221646-05 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*68.0 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*77.2 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*75.2 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*74.1 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*81.7 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*86.4 %*	*29.1-130*		"	"	"	"	

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB6-2

T221646-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	**13**	10	"	"	"	"	"	"	D-06
Surrogate: p-Terphenyl		*90.7 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**96**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**8.1**	2.0	"	"	"	"	"	"	
Cobalt	**6.2**	2.0	"	"	"	"	"	"	
Copper	**7.1**	1.0	"	"	"	"	"	"	
Lead	**3.4**	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**5.9**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**23**	5.0	"	"	"	"	"	"	
Zinc	**39**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB6-2

T221646-06 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB6-2

T221646-06 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.2 %*	*75.4-139*		"	"	"	"	

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SB6-2

T221646-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*109 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*99.6 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB6-2

T221646-06 (Soil)

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Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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SB6-2

T221646-06 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*71.9 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*80.9 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*79.0 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*79.4 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*84.7 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*87.3 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*90.2 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**120**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**11**	2.0	"	"	"	"	"	"	
Cobalt	**7.6**	2.0	"	"	"	"	"	"	
Copper	**7.2**	1.0	"	"	"	"	"	"	
Lead	**3.2**	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**7.7**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**30**	5.0	"	"	"	"	"	"	
Zinc	**41**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.7 %*		*75.4-139*	"	"	"	"	

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*108 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB7-2

T221646-07 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*69.4 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*78.7 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*75.3 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*78.6 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*84.9 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*89.0 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB8-2

T221646-08 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*86.2 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**130**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	06/13/22	"	
Cadmium	ND	2.0	"	"	"	"	06/13/22	"	
Chromium	**7.6**	2.0	"	"	"	"	"	"	
Cobalt	**6.4**	2.0	"	"	"	"	"	"	
Copper	**5.4**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**5.0**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**24**	5.0	"	"	"	"	"	"	
Zinc	**42**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB8-2

T221646-08 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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SB8-2

T221646-08 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.1 %*		*75.4-139*	"	"	"	"	

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T221646-08 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*109 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB8-2

T221646-08 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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SB8-2

T221646-08 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*64.5 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*73.9 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*69.9 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*72.9 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*77.5 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*82.6 %*	*29.1-130*		"	"	"	"	

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB9-2

T221646-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*89.1 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	06/13/22	"	
Arsenic	ND	5.0	"	"	"	"	06/13/22	"	
Barium	**88**	1.0	"	"	"	"	06/13/22	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	06/13/22	"	
Chromium	**7.7**	2.0	"	"	"	"	06/13/22	"	
Cobalt	**5.0**	2.0	"	"	"	"	06/13/22	"	
Copper	**7.3**	1.0	"	"	"	"	06/13/22	"	
Lead	**6.2**	3.0	"	"	"	"	06/13/22	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**5.7**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**20**	5.0	"	"	"	"	06/13/22	"	
Zinc	**40**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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SB9-2

T221646-09 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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T221646-09 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.9 %*		*75.4-139*	"	"	"	"	

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T221646-09 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*110 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*99.9 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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SB9-2

T221646-09 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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SB9-2

T221646-09 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*67.6 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*80.8 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*73.4 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*77.1 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*82.7 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*82.3 %*	*29.1-130*		"	"	"	"	

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

SB10-2

T221646-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Extractable Petroleum Hydrocarbons by 8015B									
C6-C12 (GRO)	ND	10	mg/kg	1	22F0171	06/09/22	06/10/22	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*92.7 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	22F0156	06/09/22	06/13/22	EPA 6010b	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**180**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**8.0**	2.0	"	"	"	"	"	"	
Cobalt	**6.9**	2.0	"	"	"	"	"	"	
Copper	**4.8**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	**4.8**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	5.0	"	"	"	"	"	"	
Vanadium	**27**	5.0	"	"	"	"	"	"	
Zinc	**48**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	22F0157	06/09/22	06/13/22	EPA 7471A Soil	

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T221646-10 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromobenzene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
Bromochloromethane	ND	0.0025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0025	"	"	"	"	"	"	
Bromoform	ND	0.0025	"	"	"	"	"	"	
Bromomethane	ND	0.0025	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0025	"	"	"	"	"	"	
Chlorobenzene	ND	0.0025	"	"	"	"	"	"	
Chloroethane	ND	0.0025	"	"	"	"	"	"	
Chloroform	ND	0.0025	"	"	"	"	"	"	
Chloromethane	ND	0.0025	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0025	"	"	"	"	"	"	
Dibromomethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0025	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0025	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0025	"	"	"	"	"	"	

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T221646-10 (Soil)

SunStar Laboratories, Inc.

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,3-Dichloropropene	ND	0.0025	mg/kg	1	22F0175	06/09/22	06/10/22	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.0025	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0025	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0025	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0025	"	"	"	"	"	"	
Methylene chloride	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0025	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0025	"	"	"	"	"	"	
Styrene	ND	0.0025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0025	"	"	"	"	"	"	
Trichloroethene	ND	0.0025	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0025	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0025	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0025	"	"	"	"	"	"	
Vinyl chloride	ND	0.0025	"	"	"	"	"	"	
Benzene	ND	0.0025	"	"	"	"	"	"	
Toluene	ND	0.0025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0025	"	"	"	"	"	"	
m,p-Xylene	ND	0.0050	"	"	"	"	"	"	
o-Xylene	ND	0.0025	"	"	"	"	"	"	
Acetone	ND	0.0050	"	"	"	"	"	"	
Methyl ethyl ketone	ND	0.0050	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	0.0050	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.0050	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.2 %*	*75.4-139*		"	"	"	"	

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T221646-10 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Surrogate: Dibromofluoromethane		*108 %*		*73.1-125*	*22F0175*	*06/09/22*	*06/10/22*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*82.6-117*	*"*	*"*	*"*	*"*	
Semivolatile Organic Compounds by EPA Method 8270C									
Carbazole	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
Phenol	ND	1.0	"	"	"	"	"	"	
Aniline	ND	0.30	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.30	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.30	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.30	"	"	"	"	"	"	
Acenaphthene	ND	0.30	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.30	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	0.30	"	"	"	"	"	"	
Acenaphthylene	ND	0.30	"	"	"	"	"	"	
Anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.30	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.30	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.30	"	"	"	"	"	"	
Benzyl alcohol	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.30	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.30	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.30	"	"	"	"	"	"	

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T221646-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Semivolatile Organic Compounds by EPA Method 8270C									
4-Chloroaniline	ND	0.30	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
2-Chloronaphthalene	ND	0.30	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.30	"	"	"	"	"	"	
Chrysene	ND	0.30	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.30	"	"	"	"	"	"	
Dibenzofuran	ND	0.30	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.30	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.30	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	0.30	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.30	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.30	"	"	"	"	"	"	
Fluoranthene	ND	0.30	"	"	"	"	"	"	
Fluorene	ND	0.30	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.30	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	0.30	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.30	"	"	"	"	"	"	
Isophorone	ND	0.30	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.30	"	"	"	"	"	"	
2-Nitroaniline	ND	0.30	"	"	"	"	"	"	
3-Nitroaniline	ND	0.30	"	"	"	"	"	"	
4-Nitroaniline	ND	0.30	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	

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T221646-10 (Soil)

SunStar Laboratories, Inc.

Semivolatile Organic Compounds by EPA Method 8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Nitrophenol	ND	1.0	mg/kg	1	22F0174	06/09/22	06/13/22	EPA 8270C	
N-Nitrosodimethylamine	ND	0.30	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.30	"	"	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	0.30	"	"	"	"	"	"	
Phenanthrene	ND	0.30	"	"	"	"	"	"	
Azobenzene	ND	0.30	"	"	"	"	"	"	
Pyridine	ND	0.30	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*62.7 %*	*15-121*		"	"	"	"	
Surrogate: Phenol-d6		*71.1 %*	*24-113*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*67.8 %*	*21.3-119*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*69.0 %*	*32.4-102*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*76.1 %*	*18.1-105*		"	"	"	"	
Surrogate: Terphenyl-dl4		*79.3 %*	*29.1-130*		"	"	"	"	

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Extractable Petroleum Hydrocarbons by 8015B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0171 - EPA 3550B GC										
Blank (22F0171-BLK1)				Prepared: 06/09/22 Analyzed: 06/10/22						
C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	*94.6*		*"*	*100*		*94.6*	*65-135*			
LCS (22F0171-BS1)				Prepared: 06/09/22 Analyzed: 06/10/22						
C13-C28 (DRO)	470	10	mg/kg	500		94.8	75-125			
Surrogate: p-Terphenyl	*94.9*		*"*	*100*		*94.9*	*65-135*			
LCS Dup (22F0171-BSD1)				Prepared: 06/09/22 Analyzed: 06/10/22						
C13-C28 (DRO)	470	10	mg/kg	500		94.0	75-125	0.920	20	
Surrogate: p-Terphenyl	*93.3*		*"*	*100*		*93.3*	*65-135*			

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Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0156 - EPA 3050B										
Blank (22F0156-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	5.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							
LCS (22F0156-BS1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Arsenic	102	5.0	mg/kg	100		102	75-125			
Barium	101	1.0	"	100		101	75-125			
Cadmium	102	2.0	"	100		102	75-125			
Chromium	102	2.0	"	100		102	75-125			
Lead	101	3.0	"	100		101	75-125			
Matrix Spike (22F0156-MS1)	**Source: T221622-09**			Prepared: 06/09/22 Analyzed: 06/13/22						
Arsenic	76.3	5.0	mg/kg	100	0.980	75.3	75-125			
Barium	178	1.0	"	100	103	74.8	75-125			QM-05
Cadmium	75.1	2.0	"	100	0.442	74.7	75-125			QM-05
Chromium	92.5	2.0	"	100	19.3	73.2	75-125			QM-05
Lead	75.2	3.0	"	100	5.09	70.1	75-125			QM-05

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Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0156 - EPA 3050B										
Matrix Spike Dup (22F0156-MSD1)	**Source: T221622-09**			Prepared: 06/09/22 Analyzed: 06/13/22						
Arsenic	74.5	5.0	mg/kg	100	0.980	73.6	75-125	2.31	20	QM-05
Barium	174	1.0	"	100	103	70.7	75-125	2.31	20	QM-05
Cadmium	72.7	2.0	"	100	0.442	72.2	75-125	3.32	20	QM-05
Chromium	90.5	2.0	"	100	19.3	71.2	75-125	2.14	20	QM-05
Lead	74.2	3.0	"	100	5.09	69.1	75-125	1.29	20	QM-05

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0157 - EPA 7471A Soil										
Blank (22F0157-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Mercury	ND	0.10	mg/kg							
LCS (22F0157-BS1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Mercury	0.356	0.10	mg/kg	0.385		92.5	80-120			
Matrix Spike (22F0157-MS1)	**Source: T221622-09**			Prepared: 06/09/22 Analyzed: 06/13/22						
Mercury	0.435	0.10	mg/kg	0.403	ND	108	75-125			
Matrix Spike Dup (22F0157-MSD1)	**Source: T221622-09**			Prepared: 06/09/22 Analyzed: 06/13/22						
Mercury	0.430	0.10	mg/kg	0.417	ND	103	75-125	1.09	20	

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0175 - EPA 5030 GCMS										
Blank (22F0175-BLK1)				Prepared: 06/09/22 Analyzed: 06/10/22						
Bromobenzene	ND	0.0025	mg/kg							
Bromochloromethane	ND	0.0025	"							
Bromodichloromethane	ND	0.0025	"							
Bromoform	ND	0.0025	"							
Bromomethane	ND	0.0025	"							
n-Butylbenzene	ND	0.0025	"							
sec-Butylbenzene	ND	0.0025	"							
tert-Butylbenzene	ND	0.0025	"							
Carbon tetrachloride	ND	0.0025	"							
Chlorobenzene	ND	0.0025	"							
Chloroethane	ND	0.0025	"							
Chloroform	ND	0.0025	"							
Chloromethane	ND	0.0025	"							
2-Chlorotoluene	ND	0.0025	"							
4-Chlorotoluene	ND	0.0025	"							
Dibromochloromethane	ND	0.0025	"							
1,2-Dibromo-3-chloropropane	ND	0.0050	"							
1,2-Dibromoethane (EDB)	ND	0.0025	"							
Dibromomethane	ND	0.0025	"							
1,2-Dichlorobenzene	ND	0.0025	"							
1,3-Dichlorobenzene	ND	0.0025	"							
1,4-Dichlorobenzene	ND	0.0025	"							
Dichlorodifluoromethane	ND	0.0025	"							
1,1-Dichloroethane	ND	0.0025	"							
1,2-Dichloroethane	ND	0.0025	"							
1,1-Dichloroethene	ND	0.0025	"							
cis-1,2-Dichloroethene	ND	0.0025	"							
trans-1,2-Dichloroethene	ND	0.0025	"							
1,2-Dichloropropane	ND	0.0025	"							
1,3-Dichloropropane	ND	0.0025	"							
2,2-Dichloropropane	ND	0.0025	"							
1,1-Dichloropropene	ND	0.0025	"							
cis-1,3-Dichloropropene	ND	0.0025	"							
trans-1,3-Dichloropropene	ND	0.0025	"							
Hexachlorobutadiene	ND	0.0025	"							
Isopropylbenzene	ND	0.0025	"							

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0175 - EPA 5030 GCMS										
Blank (22F0175-BLK1)				Prepared: 06/09/22 Analyzed: 06/10/22						
p-Isopropyltoluene	ND	0.0025	mg/kg							
Methylene chloride	ND	0.010	"							
Naphthalene	ND	0.0025	"							
n-Propylbenzene	ND	0.0025	"							
Styrene	ND	0.0025	"							
1,1,2,2-Tetrachloroethane	ND	0.0025	"							
1,1,1,2-Tetrachloroethane	ND	0.0025	"							
Tetrachloroethene	ND	0.0025	"							
1,2,3-Trichlorobenzene	ND	0.0025	"							
1,2,4-Trichlorobenzene	ND	0.0025	"							
1,1,2-Trichloroethane	ND	0.0025	"							
1,1,1-Trichloroethane	ND	0.0025	"							
Trichloroethene	ND	0.0025	"							
Trichlorofluoromethane	ND	0.0025	"							
1,2,3-Trichloropropane	ND	0.0025	"							
1,3,5-Trimethylbenzene	ND	0.0025	"							
1,2,4-Trimethylbenzene	ND	0.0025	"							
Vinyl chloride	ND	0.0025	"							
Benzene	ND	0.0025	"							
Toluene	ND	0.0025	"							
Ethylbenzene	ND	0.0025	"							
m,p-Xylene	ND	0.0050	"							
o-Xylene	ND	0.0025	"							
Acetone	ND	0.0050	"							
Methyl ethyl ketone	ND	0.0050	"							
Methyl isobutyl ketone	ND	0.0050	"							
2-Hexanone (MBK)	ND	0.0050	"							
Surrogate: 4-Bromofluorobenzene	*0.0467*		"	*0.0500*		*93.3*	*75.4-139*			
Surrogate: Dibromofluoromethane	*0.0520*		"	*0.0500*		*104*	*73.1-125*			
Surrogate: Toluene-d8	*0.0506*		"	*0.0500*		*101*	*82.6-117*			

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0175 - EPA 5030 GCMS										
LCS (22F0175-BS1)				Prepared: 06/09/22 Analyzed: 06/10/22						
Chlorobenzene	0.0543	0.0025	mg/kg	0.0500		109	65.2-124			
1,1-Dichloroethene	0.0527	0.0025	"	0.0500		105	60.9-131			
Trichloroethene	0.0514	0.0025	"	0.0500		103	62.1-126			
Benzene	0.0536	0.0025	"	0.0500		107	65.3-127			
Toluene	0.0530	0.0025	"	0.0500		106	64.3-122			
Surrogate: 4-Bromofluorobenzene	*0.0485*		*"*	*0.0500*		*96.9*	*75.4-139*			
Surrogate: Dibromofluoromethane	*0.0512*		*"*	*0.0500*		*102*	*73.1-125*			
Surrogate: Toluene-d8	*0.0504*		*"*	*0.0500*		*101*	*82.6-117*			
Matrix Spike (22F0175-MS1)		**Source: T221646-01**		Prepared: 06/09/22 Analyzed: 06/10/22						
Chlorobenzene	0.0420	0.0025	mg/kg	0.0500	ND	83.9	65.2-125			
1,1-Dichloroethene	0.0489	0.0025	"	0.0500	ND	97.8	60.9-131			
Trichloroethene	0.0424	0.0025	"	0.0500	ND	84.8	62.1-126			
Benzene	0.0447	0.0025	"	0.0500	ND	89.3	65.3-127			
Toluene	0.0419	0.0025	"	0.0500	ND	83.8	64.3-125			
Surrogate: 4-Bromofluorobenzene	*0.0488*		*"*	*0.0500*		*97.5*	*75.4-139*			
Surrogate: Dibromofluoromethane	*0.0516*		*"*	*0.0500*		*103*	*73.1-125*			
Surrogate: Toluene-d8	*0.0496*		*"*	*0.0500*		*99.1*	*82.6-117*			
Matrix Spike Dup (22F0175-MSD1)		**Source: T221646-01**		Prepared: 06/09/22 Analyzed: 06/10/22						
Chlorobenzene	0.0473	0.0025	mg/kg	0.0500	ND	94.7	65.2-125	12.0	20	
1,1-Dichloroethene	0.0511	0.0025	"	0.0500	ND	102	60.9-131	4.38	20	
Trichloroethene	0.0476	0.0025	"	0.0500	ND	95.3	62.1-126	11.7	20	
Benzene	0.0497	0.0025	"	0.0500	ND	99.5	65.3-127	10.7	20	
Toluene	0.0467	0.0025	"	0.0500	ND	93.4	64.3-125	10.9	20	
Surrogate: 4-Bromofluorobenzene	*0.0508*		*"*	*0.0500*		*102*	*75.4-139*			
Surrogate: Dibromofluoromethane	*0.0515*		*"*	*0.0500*		*103*	*73.1-125*			
Surrogate: Toluene-d8	*0.0493*		*"*	*0.0500*		*98.6*	*82.6-117*			

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0174 - EPA 3550 ECD/GCMS										
Blank (22F0174-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Carbazole	ND	0.30	mg/kg							
Phenol	ND	1.0	"							
Aniline	ND	0.30	"							
2-Chlorophenol	ND	1.0	"							
1,4-Dichlorobenzene	ND	0.30	"							
N-Nitrosodi-n-propylamine	ND	0.30	"							
1,2,4-Trichlorobenzene	ND	0.30	"							
4-Chloro-3-methylphenol	ND	1.0	"							
2-Methylnaphthalene	ND	0.30	"							
1-Methylnaphthalene	ND	0.30	"							
Acenaphthene	ND	0.30	"							
4-Nitrophenol	ND	1.0	"							
2,4-Dinitrotoluene	ND	0.30	"							
Pentachlorophenol	ND	1.0	"							
Pyrene	ND	0.30	"							
Acenaphthylene	ND	0.30	"							
Anthracene	ND	0.30	"							
Benzo (a) anthracene	ND	0.30	"							
Benzo (b) fluoranthene	ND	0.30	"							
Benzo (k) fluoranthene	ND	0.30	"							
Benzo (g,h,i) perylene	ND	1.0	"							
Benzo (a) pyrene	ND	0.30	"							
Benzyl alcohol	ND	0.30	"							
Bis(2-chloroethoxy)methane	ND	0.30	"							
Bis(2-chloroethyl)ether	ND	0.30	"							
Bis(2-chloroisopropyl)ether	ND	0.30	"							
Bis(2-ethylhexyl)phthalate	ND	0.30	"							
4-Bromophenyl phenyl ether	ND	0.30	"							
Butyl benzyl phthalate	ND	0.30	"							
4-Chloroaniline	ND	0.30	"							
2-Chloronaphthalene	ND	0.30	"							
4-Chlorophenyl phenyl ether	ND	0.30	"							
Chrysene	ND	0.30	"							
Dibenz (a,h) anthracene	ND	0.30	"							
Dibenzofuran	ND	0.30	"							
Di-n-butyl phthalate	ND	0.30	"							

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2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0174 - EPA 3550 ECD/GCMS										
Blank (22F0174-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
1,2-Dichlorobenzene	ND	0.30	mg/kg							
1,3-Dichlorobenzene	ND	0.30	"							
2,4-Dichlorophenol	ND	1.0	"							
Diethyl phthalate	ND	0.30	"							
2,4-Dimethylphenol	ND	1.0	"							
Dimethyl phthalate	ND	0.30	"							
4,6-Dinitro-2-methylphenol	ND	1.0	"							
2,4-Dinitrophenol	ND	1.0	"							
2,6-Dinitrotoluene	ND	1.0	"							
Di-n-octyl phthalate	ND	0.30	"							
Fluoranthene	ND	0.30	"							
Fluorene	ND	0.30	"							
Hexachlorobenzene	ND	1.5	"							
Hexachlorobutadiene	ND	0.30	"							
Hexachlorocyclopentadiene	ND	1.0	"							
Hexachloroethane	ND	0.30	"							
Indeno (1,2,3-cd) pyrene	ND	0.30	"							
Isophorone	ND	0.30	"							
2-Methylphenol	ND	1.0	"							
4-Methylphenol	ND	1.0	"							
Naphthalene	ND	0.30	"							
2-Nitroaniline	ND	0.30	"							
3-Nitroaniline	ND	0.30	"							
4-Nitroaniline	ND	0.30	"							
Nitrobenzene	ND	1.0	"							
2-Nitrophenol	ND	1.0	"							
N-Nitrosodimethylamine	ND	0.30	"							
N-Nitrosodiphenylamine	ND	0.30	"							
2,3,5,6-Tetrachlorophenol	ND	0.30	"							
2,3,4,6-Tetrachlorophenol	ND	0.30	"							
Phenanthrene	ND	0.30	"							
Azobenzene	ND	0.30	"							
2,4,5-Trichlorophenol	ND	1.0	"							
Pyridine	ND	0.30	"							
2,4,6-Trichlorophenol	ND	1.0	"							

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0174 - EPA 3550 ECD/GCMS										
Blank (22F0174-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Surrogate: 2-Fluorophenol	*2.44*		*mg/kg*	*3.33*		*73.3*	*15-121*			
Surrogate: Phenol-d6	*2.69*		*"*	*3.33*		*80.6*	*24-113*			
Surrogate: Nitrobenzene-d5	*2.66*		*"*	*3.33*		*79.9*	*21.3-119*			
Surrogate: 2-Fluorobiphenyl	*2.73*		*"*	*3.33*		*82.0*	*32.4-102*			
Surrogate: 2,4,6-Tribromophenol	*2.80*		*"*	*3.33*		*84.0*	*18.1-105*			
Surrogate: Terphenyl-dl4	*3.02*		*"*	*3.33*		*90.6*	*29.1-130*			
LCS (22F0174-BS1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Phenol	2.87	1.0	mg/kg	3.33		86.1	34-114			
2-Chlorophenol	2.83	1.0	"	3.33		85.0	34-114			
1,4-Dichlorobenzene	2.65	0.30	"	3.33		79.6	34-114			
N-Nitrosodi-n-propylamine	3.27	0.30	"	3.33		98.2	30-110			
1,2,4-Trichlorobenzene	2.76	0.30	"	3.33		82.9	39-119			
4-Chloro-3-methylphenol	3.38	1.0	"	3.33		101	50-130			
Acenaphthene	2.58	0.30	"	3.33		77.5	34-114			
Pentachlorophenol	3.08	1.0	"	3.33		92.3	50-130			
Pyrene	2.04	0.30	"	3.33		61.3	33.7-123			
Surrogate: 2-Fluorophenol	*2.52*		*"*	*3.33*		*75.5*	*15-121*			
Surrogate: Phenol-d6	*2.85*		*"*	*3.33*		*85.6*	*24-113*			
Surrogate: Nitrobenzene-d5	*2.77*		*"*	*3.33*		*83.2*	*21.3-119*			
Surrogate: 2-Fluorobiphenyl	*2.81*		*"*	*3.33*		*84.2*	*32.4-102*			
Surrogate: 2,4,6-Tribromophenol	*3.12*		*"*	*3.33*		*93.7*	*18.1-105*			
Surrogate: Terphenyl-dl4	*3.17*		*"*	*3.33*		*95.0*	*29.1-130*			
LCS Dup (22F0174-BSD1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Phenol	3.09	1.0	mg/kg	3.33		92.7	34-114	7.41	42	
2-Chlorophenol	3.04	1.0	"	3.33		91.3	34-114	7.11	40	
1,4-Dichlorobenzene	2.88	0.30	"	3.33		86.3	34-114	8.03	28	
N-Nitrosodi-n-propylamine	3.48	0.30	"	3.33		104	30-110	5.99	38	
1,2,4-Trichlorobenzene	3.01	0.30	"	3.33		90.2	39-119	8.38	28	
4-Chloro-3-methylphenol	3.62	1.0	"	3.33		108	50-130	6.87	42	
Acenaphthene	2.71	0.30	"	3.33		81.2	34-114	4.71	31	
Pentachlorophenol	3.13	1.0	"	3.33		94.0	50-130	1.79	50	
Pyrene	2.17	0.30	"	3.33		65.1	33.7-123	5.95	31	
Surrogate: 2-Fluorophenol	*2.67*		*"*	*3.33*		*80.1*	*15-121*			
Surrogate: Phenol-d6	*3.06*		*"*	*3.33*		*91.7*	*24-113*			

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Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 22F0174 - EPA 3550 ECD/GCMS										
LCS Dup (22F0174-BSD1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Surrogate: Nitrobenzene-d5	*3.01*		*mg/kg*	*3.33*		*90.4*	*21.3-119*			
Surrogate: 2-Fluorobiphenyl	*2.96*		*"*	*3.33*		*88.7*	*32.4-102*			
Surrogate: 2,4,6-Tribromophenol	*3.31*		*"*	*3.33*		*99.3*	*18.1-105*			
Surrogate: Terphenyl-dl4	*3.35*		*"*	*3.33*		*101*	*29.1-130*			

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor	Project: 1151 Palmyrita ave	
2154 Torrance Blvd., Suite 200	Project Number: 22-367348	**Reported:**
Torrance CA, 90501	Project Manager: Bruce Eppler	06/14/22 13:23

Notes and Definitions

QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
D-06	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE
25712 Commercentre Drive, Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: Partner Engineering & Science
Address: 2154 Torrance Blvd
Phone: 916-532-0670 Fax:
Project Manager: Bruce Eppler beppler@partneresi.com

Date: 6-9-22 Page: 1 Of 1
Project Name: 1181 Palm Vista Ave
Collector: Ramy R. Client Project #: 22-36734
Batch #: T221646 EDF #:

Laboratory ID #	Sample ID	Date Sampled	Time	Sample Type	Container Type	8260B VOC's	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	6020 ICP-MS Metals					Comments/Preservative	Total # of containers
1	SB1-2	6-9-22	845	Soil	8oz Jar	X			X				X	X							
2	SB2-2		855			X			X				X	X							
3	SB3-2		900			X			X				X	X							
4	SB4-2		915			X			X				X	X							
5	SB5-2		925			X			X				X	X							
6	SB6-2		945			X			X				X	X							
7	SB7-2		1000			X			X				X	X							
8	SB8-2		1015			X			X				X	X							
9	SB9-2		1025			X			X				X	X							
10	SB10-2		1035			X			X				X	X							

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	6-9-22 1200	[signature]	6-9-22 1200
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers: 10
Chain of Custody seals Y/N/NA: (N)
Seals intact? Y/N/(NA)
Received good condition/cold: 20°c

Notes

Turn around time: 48 hr / 2 days

Sample disposal Instructions: Disposal @ $2.00 each ____ Return to client ____ Pickup ____

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SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T221646

Client Name: Partner Project: 1151 Palmyrita Ave.

Delivered by: ☒ Client ☐ SunStar Courier ☐ GLS ☐ FedEx ☐ UPS

If Courier, Received by: Date/Time Courier Received:

Lab Received by: Dave Date/Time Lab Received:

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 8/24/22

Temperature: Cooler #1 19.9	°C +/- the CF (+0.1 °C) = 20	°C corrected temperature	
Temperature: Cooler #2	°C +/- the CF (+0.1 °C) =	°C corrected temperature	
Temperature: Cooler #3	°C +/- the CF (+0.1 °C) =	°C corrected temperature	
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☐ Yes ☐ No ☐ N/A	
If NO:			
Samples received on ice?	☒ Yes	☐ No → **Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ No → **Complete Non-Conformance Sheet**	

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: BB 6.9.22

Comments:

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221646

Client:	**Partner Engineering & Science, Inc.--Tor**	**Project Manager:**	**Joann Marroquin**
Project:	**1151 Palmyrita ave**	**Project Number:**	**22-367348**

Report To:
Partner Engineering & Science, Inc.--Tor
Bruce Eppler
2154 Torrance Blvd., Suite 200
Torrance, CA 90501

Date Due:	06/13/22 17:00 (2 day TAT)		
Received By:	Dave Berner	Date Received:	06/09/22 12:00
Logged In By:	Elizabeth Sprowell	Date Logged In:	06/09/22 12:29

Samples Received at:	**20°C**		
Custody Seals	No	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confirı	No		

Analysis	Due	TAT	Expires	Comments
T221646-01 SB1-2 [Soil] Sampled 06/09/22 08:45 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 08:45	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 08:45	
8260	06/13/22 15:00	2	06/23/22 08:45	
8270C	06/13/22 15:00	2	06/23/22 08:45	
T221646-02 SB2-2 [Soil] Sampled 06/09/22 08:55 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 08:55	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 08:55	
8260	06/13/22 15:00	2	06/23/22 08:55	
8270C	06/13/22 15:00	2	06/23/22 08:55	
T221646-03 SB3-2 [Soil] Sampled 06/09/22 09:00 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 09:00	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 09:00	
8260	06/13/22 15:00	2	06/23/22 09:00	
8270C	06/13/22 15:00	2	06/23/22 09:00	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221646

Client:	**Partner Engineering & Science, Inc.--Tor**	**Project Manager:**	**Joann Marroquin**
Project:	**1151 Palmyrita ave**	**Project Number:**	**22-367348**

Analysis	Due	TAT	Expires	Comments
T221646-04 SB4-2 [Soil] Sampled 06/09/22 09:15 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 09:15	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 09:15	
8260	06/13/22 15:00	2	06/23/22 09:15	
8270C	06/13/22 15:00	2	06/23/22 09:15	
T221646-05 SB5-2 [Soil] Sampled 06/09/22 09:25 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 09:25	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 09:25	
8260	06/13/22 15:00	2	06/23/22 09:25	
8270C	06/13/22 15:00	2	06/23/22 09:25	
T221646-06 SB6-2 [Soil] Sampled 06/09/22 09:45 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 09:45	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 09:45	
8260	06/13/22 15:00	2	06/23/22 09:45	
8270C	06/13/22 15:00	2	06/23/22 09:45	
T221646-07 SB7-2 [Soil] Sampled 06/09/22 10:00 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 10:00	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 10:00	
8260	06/13/22 15:00	2	06/23/22 10:00	
8270C	06/13/22 15:00	2	06/23/22 10:00	
T221646-08 SB8-2 [Soil] Sampled 06/09/22 10:15 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 10:15	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 10:15	
8260	06/13/22 15:00	2	06/23/22 10:15	
8270C	06/13/22 15:00	2	06/23/22 10:15	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221646

Client: Partner Engineering & Science, Inc.--Tor
Project: 1151 Palmyrita ave
Project Manager: Joann Marroquin
Project Number: 22-367348

Analysis	Due	TAT	Expires	Comments
T221646-09 SB9-2 [Soil] Sampled 06/09/22 10:25 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 10:25	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 10:25	
8260	06/13/22 15:00	2	06/23/22 10:25	
8270C	06/13/22 15:00	2	06/23/22 10:25	
T221646-10 SB10-2 [Soil] Sampled 06/09/22 10:35 (GMT-08:00) Pacific Time (US &				
6010 Title 22	06/13/22 15:00	2	12/06/22 10:35	
8015 Carbon Chain	06/13/22 15:00	2	06/23/22 10:35	
8260	06/13/22 15:00	2	06/23/22 10:35	
8270C	06/13/22 15:00	2	06/23/22 10:35	

Analysis groups included in this work order

6010 Title 22

subgroup 6010B T22 7470/71 Hg

Reviewed By

Date

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Appendix F:
Water Quality Management Plan

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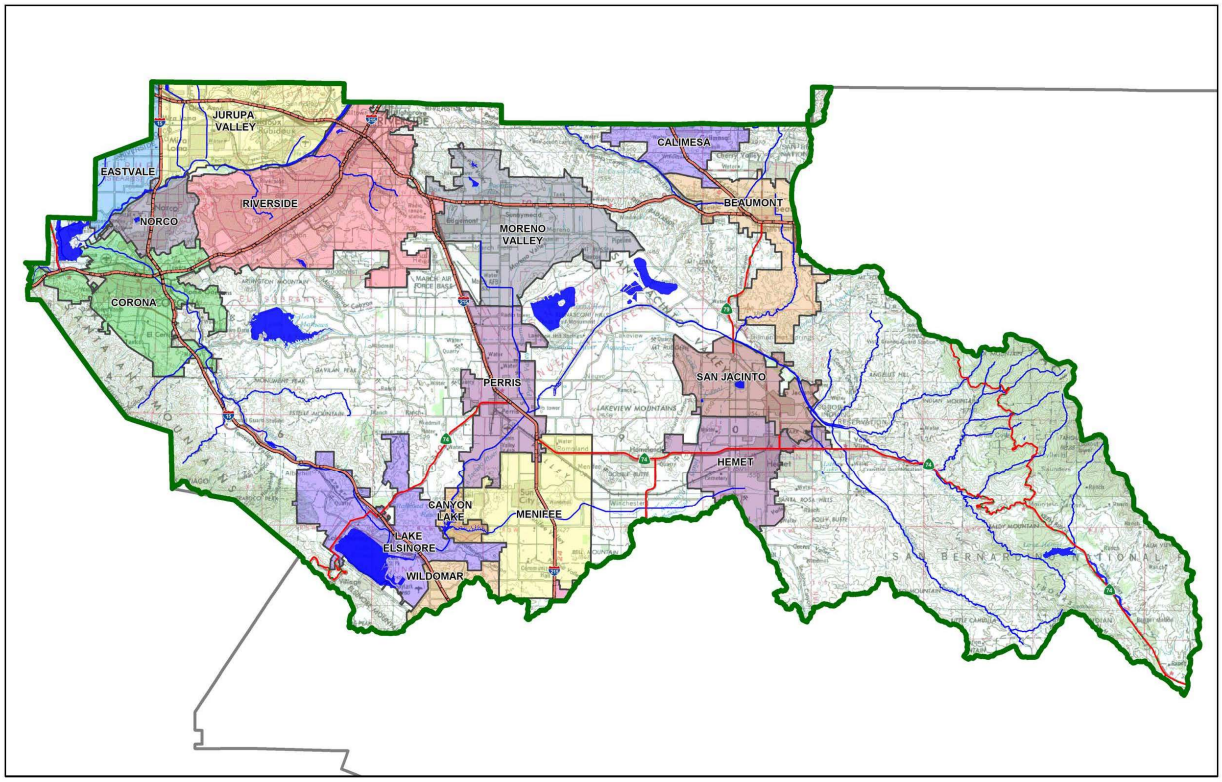
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Palmyrita Avenue Warehouses

Development No: .

Design Review/Case No: .



☒ **Preliminary**
☐ **Final**

Original Date Prepared: July 11, 2022

Revision Date(s): .

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

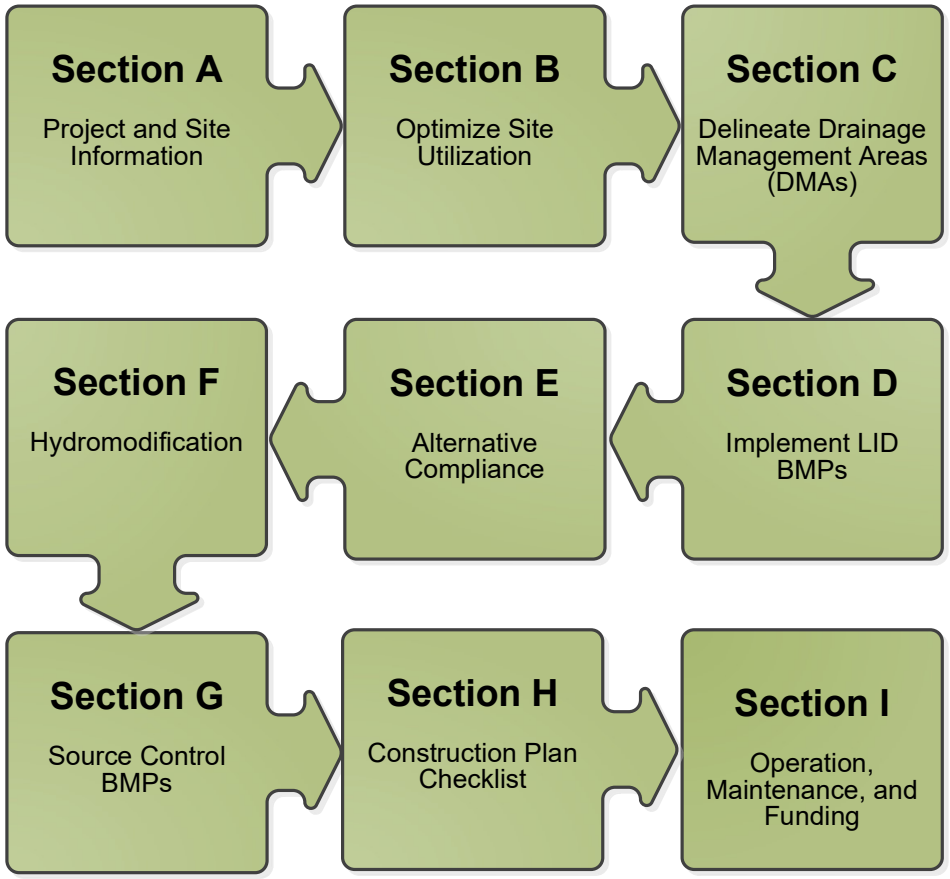
Contact Information:

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1430 S. Eastman Avenue
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909-730-0186

Prepared by:
Douglas L. Goodman, Owner
Goodman & Associates, Inc.
2079 Sky View Drive
Colton, CA 92324
(909) 824-2775

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Dedeaux Properties by Goodman & Associates, Inc. for the Palmyrita Avenue Warehouses project.

This WQMP is intended to comply with the requirements of the City of Riverside for Palmyrita Avenue Warehouses, Planning Case . which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under the City of Riverside Water Quality Ordinance (Municipal Code Section 1194).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Benjamin Horning	Owner Representative
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
Douglas L. Goodman	Owner
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure: RCE 28500, Expires March 31, 2024

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Section A: Project and Site Information

The proposed project is for the construction of two warehouse buildings with truck loading docks and associated parking on approximately 13 acres. The project is located on Palmyrita Avenue, extending westerly to Iowa Avenue, south of Citrus Street, in the City of Riverside. Access to the proposed site will be from two driveway entrances off of Palmyrita Avenue and one driveway entrance of off Iowa Avenue.

The existing vacant property generally slopes from east to west at approximately 2%. Existing drainage sheet flows across the site. There is an existing storm drain pipe in Iowa Avenue.

The proposed project will consist of two warehouse buildings with associated parking, drive aisles, and landscaping. There are two proposed LID BMP, generally one for each building, along with CDS clarifiers for pre-treatment ahead of the underground infiltration systems. Each system is proposed to be situated to the west of each building. Over-flows in excess of water quality capture volume requirements will be conveyed off-site to Palmyrita Avenue.

PROJECT INFORMATION	
Type of Project:	Industrial/Warehouse
Planning Area:	Riverside
Community Name:	City of Riverside
Development Name:	Palmyrita Avenue Warehouses
PROJECT LOCATION	
Latitude & Longitude (DMS): 34.00541°N / 117.33927°W	
Project Watershed and Sub-Watershed: Santa Ana River	
Gross Acres: 13.6	
APN(s): 247-170-030 & 247-170-039	
Map Book and Page No.: Thomas Guide Book Riverside County Page 686 Grid C1	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Warehouse
Proposed or Potential SIC Code(s)	4214
Area of Impervious Project Footprint (SF)	528,321 sf
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	528,321 sf
Does the project consist of offsite road improvements?	☐ Y ☒ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	351,000 sf
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	n/a
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	A,C

What is the Water Quality Design Storm Depth for the project?	0.643 in.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Lake Evans	None	REC1, REC2, WARM, COLD, WHILD	N/A
Santa Ana River Reach 3	Copper, Lead, Pathogens	AGR,GWR,REC1,REC2,WARM,WILD,RARE,SPWN	1.3 MILES

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*	☐ Y	☒ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Site Optimization

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The proposed project maintains this drainage pattern.

Did you identify and protect existing vegetation? If so, how? If not, why?

The existing parcel is a partially vacant parcel. The only vegetation on site are annual weeds and grasses typical of urban areas in Southern California. As such, the existing vegetation is ephemeral and not a permanent feature of the site. The proposed project will clear the existing site.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

The project will preserve natural infiltration capacity where required for the proposed stormwater BMPs. The proposed landscaped areas will introduce planting media that will likely enhance the capability to store runoff on-site within the media. The infiltration capacity of the existing soils remains unchanged.

Did you identify and minimize impervious area? If so, how? If not, why?

The project is subject to numerous development requirements, including minimum number of parking stalls, minimum driveway widths, ADA standards, etc. The project meets these requirements with as small a footprint and as much landscaping as possible.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Some of the runoff will drain to nearby landscaping areas. The project calculations do not take credit for this as a treatment mechanism, however. The remainder of the project is designed to flow to the proposed BMPs shown on the plan. Stormwater is directed to these BMPs with minimal use of inlets and pipes (except for pretreatment needs), which is nearly equivalent to dispersing runoff to various pervious areas around the project.

Section C: Delineate Drainage Management Areas (DMAs)

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
DA 1/A	Concrete or Asphalt / Roofs	*266,282*	D – Area Draining to BMP
DA 1/C	Ornamental Landscaping	*39,379*	A – Self-treating Area
DA 2/B	Concrete or Asphalt / Roofs	*262,039*	D – Area Draining to BMP
DA 2/D	Ornamental Landscaping	*24,747*	A – Self-treating Area

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*
[2]*If multi-surface provide back-up*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
DA 1/C	*39,379*	Plants, turf, trees, ground cover	automatic
DA 2/D	*24,747*	Plants, turf, trees, ground cover	automatic

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					**Receiving Self-Retaining DMA**		
DMA Name/ ID	Area (square feet) [A]	Post-project surface type	Impervious fraction [B]	Product [C] = [A] x [B]	DMA name /ID	Area (square feet) [D]	Ratio [C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DA 1/A	BMP 1
DA 2/B	BMP 2

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Co-Permittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: ALL		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Co-Permittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 1.47 ac

Type of Landscaping (Conservation Design or Active Turf): Conservative Design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 12.13 ac

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 1.05 ac

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 12.74 ac

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
12.74 ac	1.47 ac

Minimum required acreage not met; Irrigation Use not Feasible.

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: 200

Project Type: Industrial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 12.13 ac

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 185

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 2,244

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
2,244	200

Therefore, Toilet Use is <u>NOT</u> feasible

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

n/a

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: n/a

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: n/a

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: n/a

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: n/a

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
n/a	n/a

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Co-Permittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DA 1/A	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐
DA 2/B	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

n/a

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Co-Permittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Co-Permittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Areas x Runoff Factor**	***Enter BMP Name / Identifier Here*** ***BMP 1/Underground Bioretention with underdrain***		
	[A]		[B]	[C]	[A] x [C]			
DA 1/A	*266,282*	*Concrete or Asphalt*	*1*	*0.89*	*237,523.5*	*Design Storm Depth (in)*	*Design Capture Volume,* **V_{BMP}** *(cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DA 1/C	*39,379*	*Ornamental Landscaping*	*0.1*	*0.11*	*4349.7*			
	305,661				241,873.2	0.643	12,960.4	13,202

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperviou s Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]	***BMP 2/ Underground Bioretention with underdrain***		
DA 2/B	*262,039*	*Concrete or Asphalt*	*1*	*0.89*	*233,738.8*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DA 2/D	*24,747*	*Ornamental Landscaping*	*0.1*	*0.11*	*2733.5*			
	286,786				236,472.3	0.643	12,671	13,202

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☒	☒	☒	☒	☒	☒	☒

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
n/a	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Area x Runoff Factor**		***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]				
n/a						*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
n/a		

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

[2] Cross Reference Table E.1 above to populate this column.

[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	n/a	n/a	
Volume (Cubic Feet)	n/a	n/a	

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps. (No longer accepted by the Santa Ana Regional Waterboard)

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

The project is in an HCOC exempt area.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
Landscaping/Outdoor Pesticide Use	Final Landscape Plans will accomplish all of the following: • Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. • Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize	• Maintain landscaping using minimum or no pesticides • Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead dispose of green waste by composting, hauling it to a permitted landfill, or recycling through the City of Riverside's recycling program

	the use of fertilizers and pesticides that can contribute to stormwater pollution. • Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. • Consider using pest-resistant plants, especially adjacent to hardscape. • To ensure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistence, and plant interactions.	• Provide integrated Pest Management information to new owners, lessees, and operators
Refuse Areas	• Trash receptacles shall be emptied by trained personnel on a regular basis to maintain clean facilities • Trash enclosures area shall be kept clean by sweeping on a regular basis. • Trash enclosures shall be emptied by a qualified, contracted waste management company or the City of Riverside. • Signs will be posted on or near dumpsters with the words, "Do not dump hazardous materials here" or similar.	• Provide adequate number of receptacles • Inspect receptacles regularly, and repair or replace leaky receptacles • Keep receptacles covered • Prohibit/prevent dumping of liquid or hazardous wastes • Post "No Hazardous Materials signs" • Inspect and pick up litter daily and clean up spills immediately • Keep spill control materials on-site
Condensate Drain Lines	• Condensate lines for equipment get drained into the sanitary sewer at the mop sink.	
Plazas, sidewalks, loading docks and parking lots		Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure

		washing to prevent entry into the storm drain system. Collect washwater containing and cleaning agent or degreaser and discharge to the sanitary sewer, not to a storm drain.

Section H: Construction Plan Checklist

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
BMP 1	Underground Bioretention with Underdrain		
BMP 2	Underground Bioretention with Underdrain		

Section I: Operation, Maintenance and Funding

The Co-Permittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Co-Permittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Facility maintenance is self-funded as part of continuing business operations. Employee shall perform maintenance duties as part of their job requirements except for specialized or contracted services to be provided by qualified personnel.

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

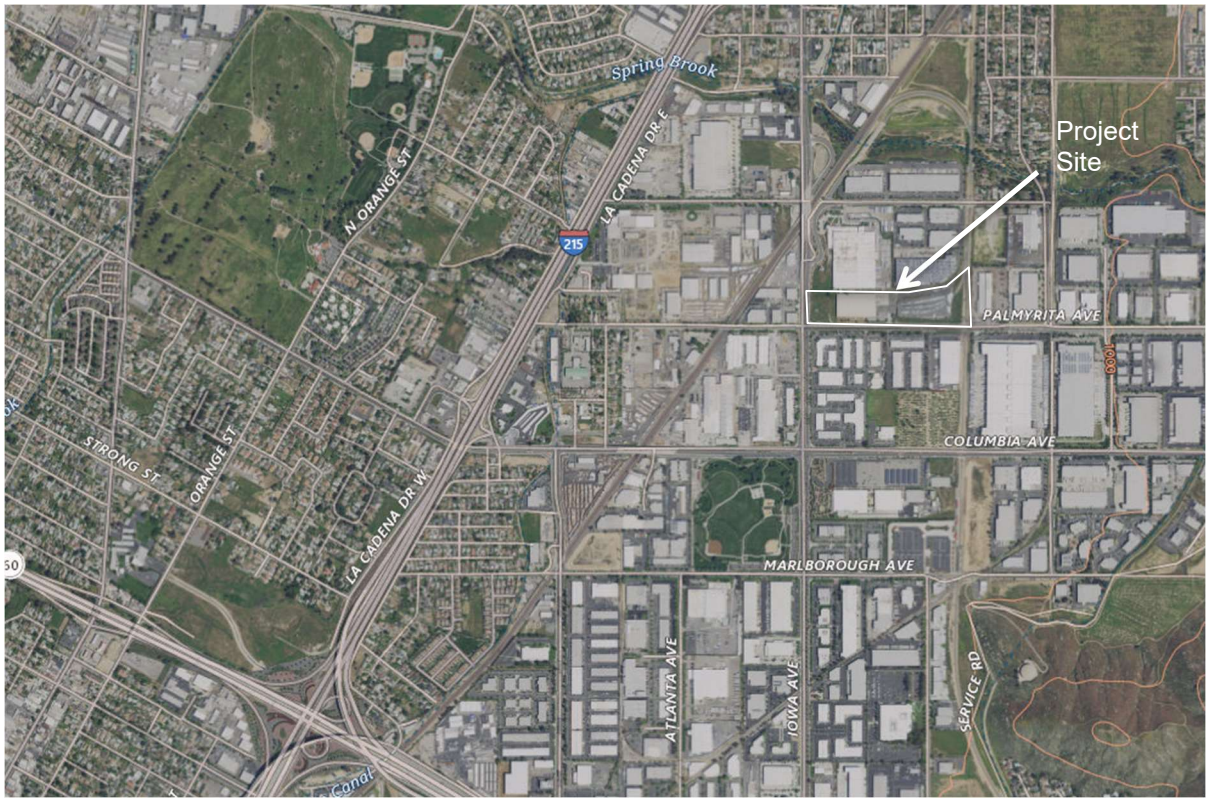
☒ Y ☐ N

Operation and Maintenance Plan and Maintenance Mechanism is included in Appendix 9. Educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP are included in Appendix 10.

Appendix 1: Maps and Site Plans

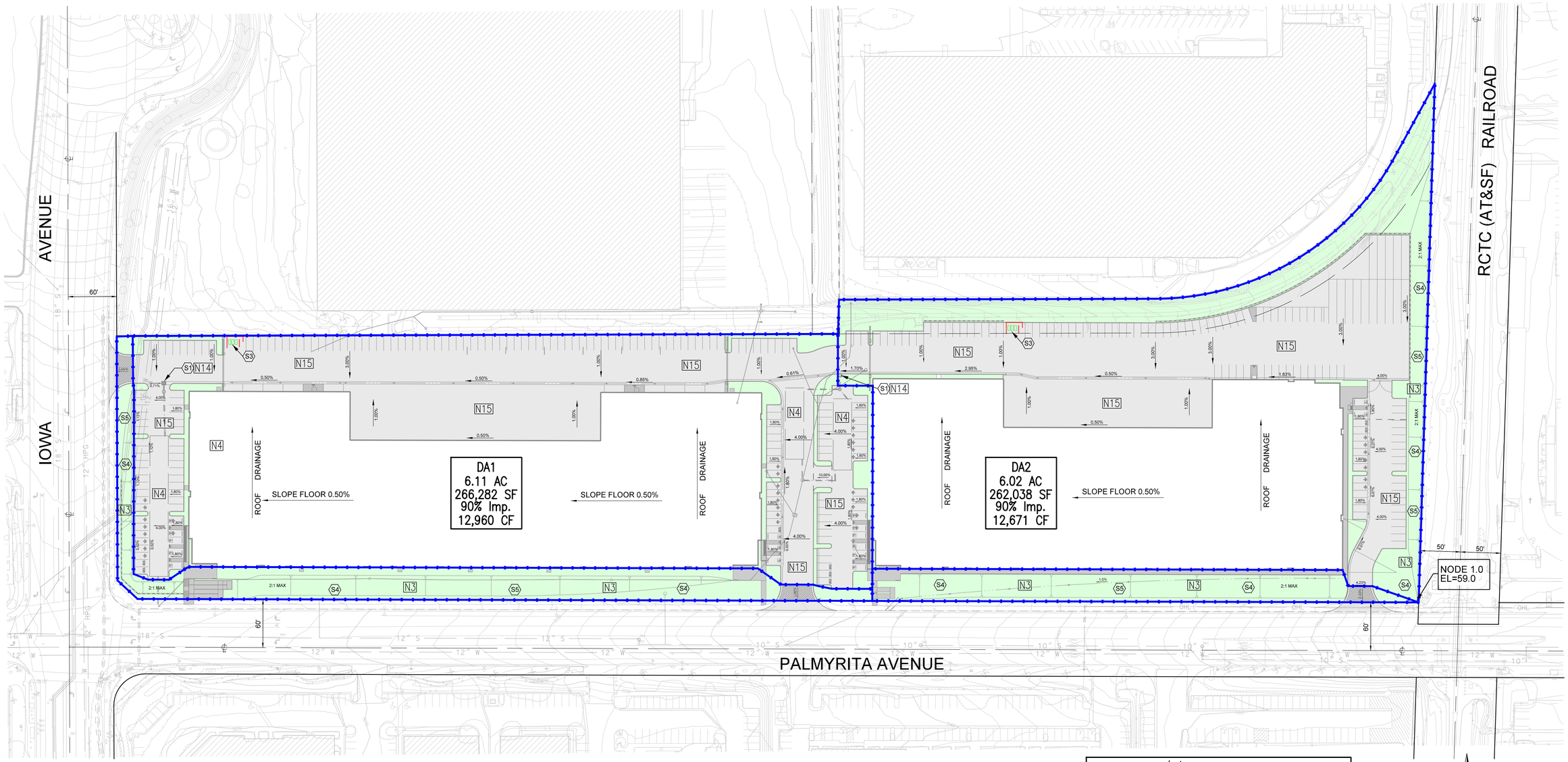
Location Map, WQMP Site Plan and Receiving Waters Map

Exhibit A Location Map



Source: USGS

PWQMP PLAN



STRUCTURAL SOURCE CONTROL BMPS

- S1 STORM DRAIN STENCILING
- S3 TRASH STORAGE AREAS, SD-32
- S4 EFFICIENT IRRIGATION, SD-12
  TYPICAL ALL LANDSCAPING
- S5 FG OF LANDSCAPE AREAS A MINIMUM OF
  1" TO 2" BELOW TC, SIDEWALK, OR PAVEMENT.
  TYPICAL ALL LANDSCAPE AREAS.

NON-STRUCTURAL SOURCE CONTROL BMPS

- N1 – EDUCATION
- N2 – ACTIVITY RESTRICTIONS
- N3 – LANDSCAPE MANAGEMENT
- N4 – BMP MAINTENANCE
- N6 – LOCAL WATER QUALITY ORDINANCES
- N7 – SPILL CONTINGENCY PLAN
- N8 – UNDERGROUND STORAGE TANK COMPLIANCE
- N9 – HAZARDOUS MATERIALS DISCLOSURE COMPLIANCE
- N10 – UNIFORM FIRE CODE IMPLEMENTATION
- N11 – LITTER/DEBRIS CONTROL PROGRAM
- N12 – EMPLOYEE TRAINING
- N14 – CATCH BASIN INSPECTION PROGRAM
- N15 – VACUUM SWEEPING OF PARKING LOT
- N17 – COMPLIANCE WITH ALL OTHER APPLICABLE NPDES STANDARDS

LID BMP SUMMARY

DA1
- 266,282 SF / 90% IMPERVIOUS
- DCV = 12,960 CF
- PROVIDE 68 MC-3500 CHAMBERS
- V-PROVIDED = 13,202 CF

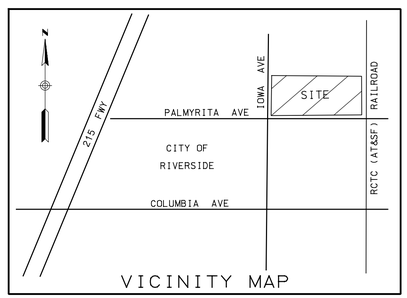
DA2
- 262,038 SF / 90% IMPERVIOUS
- DCV = 12,671 CF
- PROVIDE 68 MC-3500 CHAMBERS
- V-PROVIDED = 13,202 CF

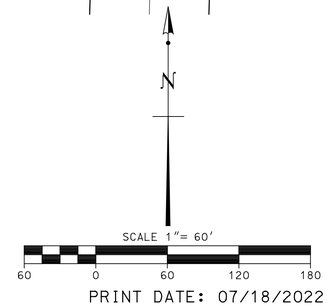
LEGEND

DRAINAGE AREA DATA

DAX/DMA X	DRAINAGE AREA
X.XX AC	DMA AREA (ACRES)
XX,XXX SF	DMA AREA (SF)
90% Imp.	DMA PERCENT IMPERVIOUS
XX,XXX CF	DMA TREATMENT VOLUME (Vbmp)

DRAINAGE AREA (DA) BOUNDARY





PRINT DATE: 07/18/2022

Underground Service Alert
Call: TOLL FREE
1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS L. GOODMAN
No. 28500
CIVIL
3-31-24
STATE OF CALIFORNIA

Goodman & ASSOCIATES
2079 SKY VIEW DRIVE
COLTON, CA 92324
(909) 824-2775

DOUGLAS L. GOODMAN
RCE 28500, 3-31-2024
DATE

MARK	REVISIONS	APPR.	DATE

DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____

CITY OF RIVERSIDE

PLANNING DEPARTMENT

APPROVAL _____ DATE _____

PRELIMINARY WATER QUALITY MANAGEMENT PLAN

PREPARED FOR DEDEAUX PROPERTIES
1151 PALMYRITA AVENUE
APN: 247-170-030 & 247-170-039

SCALE: AS SHOWN

SHEET 1 OF 1 SHEETS

Appendix 2: Construction Plans

Grading and Drainage Plans

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Sladden Engineering

45090 Golf Center Parkway, Suite F, Indio, CA. 92201 (760) 863-0713 Fax (760) 863-0847
6782 Stanton Avenue, Suite C, Buena Park, CA. 90621 (714) 523-0952 Fax (714) 523-1369
450 Egan Avenue, Beaumont, CA. 92223 (951) 845-7743 Fax (951) 845-8863
www.sladdenengineering.com

June 14, 2022

Project No. 644-22043
22-06-082

Dedeaux Properties
100 Wilshire Boulevard, Suite 250
Santa Monica, California 90401

Project: Proposed Industrial/Warehouse Buildings
NEC Iowa Avenue and Palmyrita Avenue
APN 247-170-030 & 039
Riverside, California

Subject: Percolation/Infiltration Testing for On-Site Stormwater Management

Ref: Geotechnical Investigation, Proposed Industrial/Warehouse Building, NEC Iowa Avenue and Palmyrita Avenue, Riverside, California; prepared by Sladden Engineering, Project No 644-22043, Report No. 22-06-081, dated June 13, 2022.

In accordance with your request, we have performed percolation testing on the subject site to evaluate the infiltration potential of the near surface soil to assist in stormwater management system design. It is our understanding that on-site stormwater retention including infiltration is proposed for the project.

Percolation testing was performed on May 3, 2022, within two (2) shallow tests bores excavated on the site. Testing was performed at depths of approximately 5.00 and 10.00 feet below existing grade. The approximate locations of the test holes are presented on the attached Exploration Location Plan (Figure 3). Testing was performed by placing water within the test holes and recording the drop in the water surface with time. Testing was performed in general accordance with the *United States Bureau of Reclamation (BOR) Procedure 7300-89 (1999).* Test results are summarized in the following table.

PERCOLATION TEST RESULTS

Test No.	Depth (Ft)	USCS	Percolation Rate (in/hr)	Infiltration Rate (in/hr)
P-1	5.00	SC	6.25	0.61
P-2	10.00	SC	10.00	1.03

The percolation rates determined represent the ultimate field rates that do not include a safety factor. The corresponding infiltration rates were calculated using the Porchet Method.

Based on our field investigation and our review of groundwater levels[1] within the vicinity, it is our professional opinion that groundwater should not be a controlling factor in on-site stormwater retention/infiltration system design.

If you have any questions regarding this memo or the testing summarized herein, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

Matthew J. Cohrt
Principal Geologist

CERTIFIED ENGINEERING GEOLOGIST
MATTHEW J. COHRT
2634
STATE OF CALIFORNIA

Brett L. Anderson
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
BRETT L. ANDERSON
No. C45389
CIVIL ENGINEERING
STATE OF CALIFORNIA

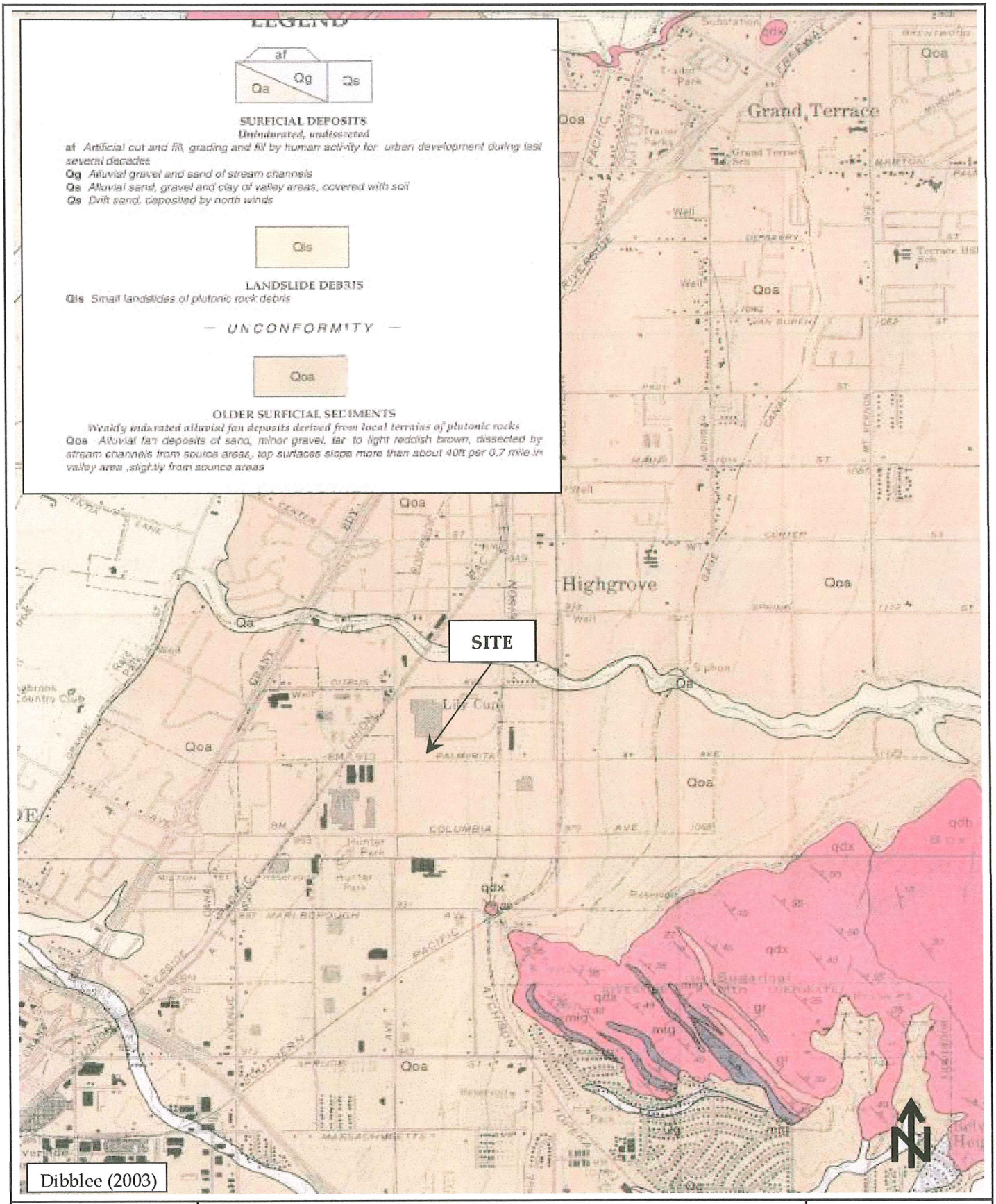
Copies: 4/Addressee

[1] California Department of Water Resources (CDWR), 2022, Historical Data by Well-Map Interface, available at: http://wdl.water.ca.gov/waterdatalibrary/Home.aspx

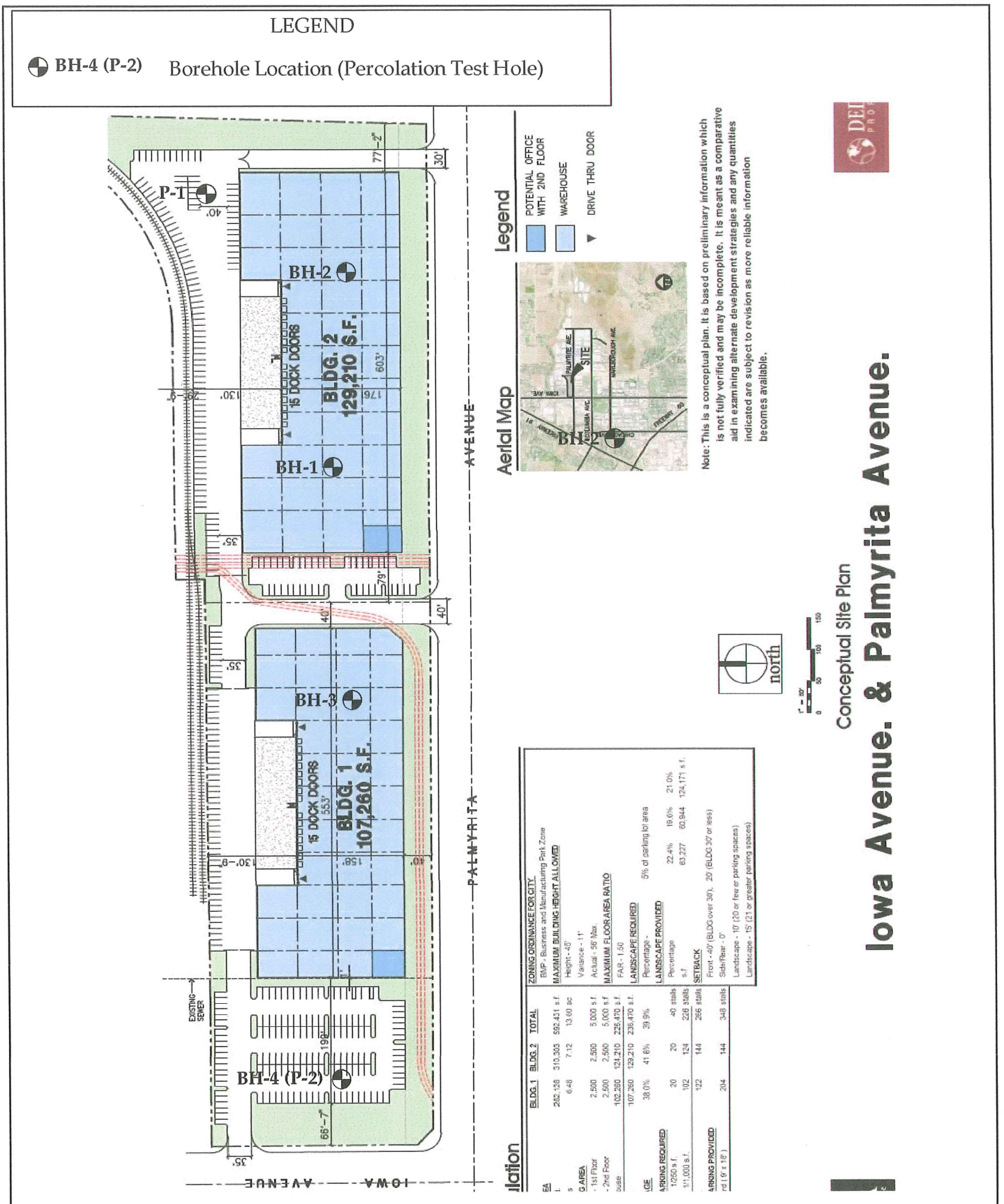
SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PLAN



Sladden Engineering	SITE LOCATION MAP	FIGURE 1
	Project Number: 644-22043	
	Report Number: 22-06-082	
	Date: June 14, 2022	



Sladden Engineering	REGIONAL GEOLOGIC MAP	FIGURE 2
	Project Number: 644-22043	
	Report Number: 22-06-082	
	Date: June 14, 2022	



Sladden Engineering	EXPLORATION LOCATION PLAN	FIGURE 3
	Project Number:	644-22043
	Report Number:	22-06-082
	Date:	June 14, 2022

BORELOGS

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.25 inches AC
	6 10 15	1	20	44.2	9.5	127.8	2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
	13 13 17			50.1	8.4	129.0	4		Sandy Clay (CL); dark grayish brown, dry, very stiff, low plasticity with gravel (Qoa).
	8 9 8			28.3	5.0		10		Clayey Sand (SC); light yellowish brown, dry, medium dense, fine- to coarse-grained with gravel; micaceous (Qoa).
	24 50-4			27.1	9.1	117.6	16		Clayey Sand (SC); light yellowish brown, dry, very dense, fine- to coarse-grained (Qoa).
	12 17 19			15.6	4.4		20		Silty Sand (SM); yellowish brown, dry, dense, fine- to coarse-grained (Qoa).
	21 50-6			43.0.	10.5	126.6	26		Silty Sand (SM): yellowish brown, dry to slightly moist, very dense, fine- to coarse-grained (Qoa).
	20 27 035			31.3	7.2		30		Clayey Sand (SC); light yellowish brown, dry, very dense, fine- to coarse-grained Qoa).
	27 50-6			27.6	6.7	123.1	36		Clayey Sand (SC); yellowish brown, dry, very dense, fine- to coarse-grained (Qoa).
	14 25 47			41.6	9.4		40		Clayey Sand (SC); yellowish brown, dry to slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
	14 16 26			42.7	11.8	122.8	46		Clayey Sand (SC); yellowish brown,slightly moist, medium dense, fine- to coarse-grained, micaceous (Qoa).
	18 38 46			35.7	7.5		50		Clayey Sand (SC); yellowish brown,slightly moist, very dense, fine- to coarse-grained (Qoa).

Completion Notes:
Terminated at 51.5 Feet bgs .
No Bedrock Encountered.
No Groundwater or Seepage Encountered.

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	1
Report No:	22-06-082		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.50 inches AC
							2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
	7 12 13			49.2	12.3		6		Clayey Sand (SC); dark yellowish brown, slightly moist, medium dense, fine- to coarse-grained, micaceous (Qoa).
	19 50-6			49.6	9.7	127.3	10		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
	20 33 50			21.7	6.9		16		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
	12 26 50			21.6	7.0	122.7	20		Clayey Sand (SC); dark yellowish brown, slightly moist, very dense, fine- to coarse-grained, micaceous (Qoa).
							22		Terminated at ~21.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	2
Report No:	22-06-082		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		3.25 inches AC/4.00 inches Base Material
							2		Silty Sand (SM); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
	14 24 45			37.0	10.5	124.4	4–8		Clayey Sand (SC); light yellowish brown, slightly moist, dense, fine- to coarse-grained with gravel, micaceous (Qoa).
	3 4 5			6.6	2.4		10–14		Sand (SW); yellowish browen, dry, loose, fine- to coarse-grained with gravel (Qoa).
	12 28 44			38.1	9.3	126.7	16		Clayey Sand (SC); light yellowish brown, slightly moist, dense, fine- to coarse-grained with gravel, micaceous (Qoa).
	50-6			20.9	7.2		18–20		Clayey Sand (SC); light yellowish brown, slightly moist, very dense, fine- to coarse-grained with gravel, micaceous (Qoa).
							22–50		Terminated at ~20.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	3
Report No:	22-06-082		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	BH-4/P-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							0		Silty Sand (SM) to Clayey Sand (SC); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
							2		
							4		
	15 24 28			60.4	13.8		6		Sandy Silt (ML); yellowish brown, moist, hard, low plasticity (Qoa).
							8		
	14 19 30			48.6	10.9	128.4	10		Clayey Sand (SC); yellowish brown, slightly moist, dense, fine- to coarse-grained, micaceous (Qoa).
							12		Terminated at 11.5 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	4
Report No:	22-06-082		

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	4/19/2022
Elevation:	935 Ft. MSL	Boring No:	P-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM) to Clayey Sand (SC); yellowish brown, dry to slightly moist, fine- to coarse-grained with gravel (Fill).
							4		Clayey Sand (SC); yellowish brown, slightly moist, dense, fine- to coarse-grained, micaceous (Qoa).
							6		Terminated at ~5.00 Feet bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							8		
							10		
							12		
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED INDUSTRIAL/WAREHOUSE BUILDINGS
NEC IOWA AVENUE AND PALMYRITA AVENUE, RIVERSIDE

Project No:	644-22043	Page	5
Report No:	22-06-082		

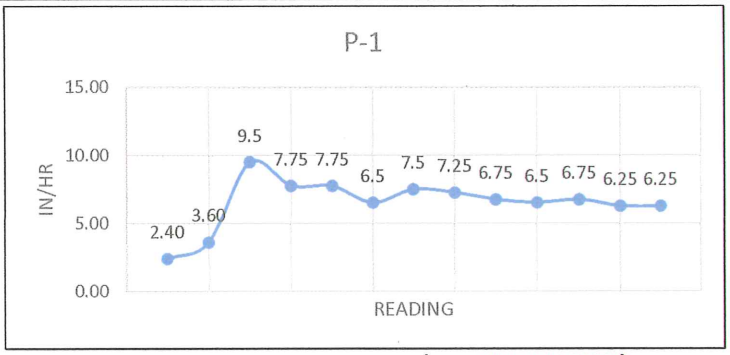
PERCOLATION/INFILTRATION TEST DATA SHEETS

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	NEC Iowa Ave and Palmyrita	Depth (ft):	5.00
Job No. :	644-22043	USCS Soil Class:	SC
Date:	5/3/2022	Sandy Soil:	R.O.
Test Hole #:	P-1	Tested By:	R.O.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	5.00	20	19	1	2.40
B	25.00	5.00	20	18.5	1 4/8	3.60

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	5.00	20	15 2/8	4 6/8	9.5
2	30.00	5.00	20	16 1/8	3 7/8	7.75
3	30.00	5.00	20	16 1/8	3 7/8	7.75
4	30.00	5.00	20	16 6/8	3 2/8	6.5
5	30.00	5.00	20	16 2/8	3 6/8	7.5
6	30.00	5.00	20	16 3/8	3 5/8	7.25
7	30.00	5.00	20	16 5/8	3 3/8	6.75
8	30.00	5.00	20	16 6/8	3 2/8	6.5
9	30.00	5.00	20	16 5/8	3 3/8	6.75
10	30.00	5.00	20	16 7/8	3 1/8	6.25
11	30.00	5.00	20	16 7/8	3 1/8	6.25



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	43.13
r =	4.00
D_0 =	40
D_t =	60.00
H_0 =	20
H_f =	16.875
ΔH =	3.13
H_{avg} =	18.44

Δt (minutes)
D_f (Final Depth to water)
r (hole radius in inches)
D_0 (Initial Depth to water)
D_t (Total Depth of test hole)
H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

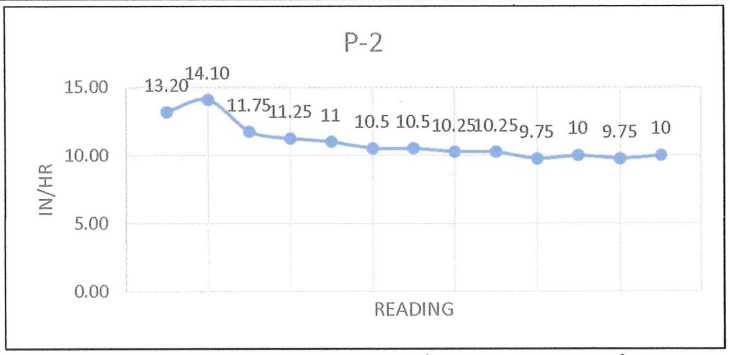
Field Rate:	6.25 in/hr
Infiltration Rate:	0.61 in/hr

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	NEC Iowa Ave and Palmyrita	Depth (ft):	10.00
Job No. :	644-22043	USCS Soil Class:	SC
Date:	5/3/2022	Sandy Soil:	R.O.
Test Hole #:	P-1	Tested By:	R.O.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	10.00	20	14 4/8	5 4/8	13.20
B	25.00	10.00	20	14 1/8	5 7/8	14.10

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	10.00	20	14 1/8	5 7/8	11.75
2	30.00	10.00	20	14 3/8	5 5/8	11.25
3	30.00	10.00	20	14 4/8	5 4/8	11
4	30.00	10.00	20	14 6/8	5 2/8	10.5
5	30.00	10.00	20	14 6/8	5 2/8	10.5
6	30.00	10.00	20	14 7/8	5 1/8	10.25
7	30.00	10.00	20	14 7/8	5 1/8	10.25
8	30.00	10.00	20	15 1/8	4 7/8	9.75
9	30.00	10.00	20	15	5	10
10	30.00	10.00	20	15 1/8	4 7/8	9.75
11	30.00	10.00	20	15	5	10



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	105.00
r =	4.00
D_0 =	100
D_t =	120.00
H_0 =	20
H_f =	15
ΔH =	5.00
H_{avg} =	17.50

Δt (minutes)
D_f (Final Depth to water)
r (hole radius in inches)
D_0 (Initial Depth to water)
D_t (Total Depth of test hole)
H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

Field Rate:	10 in/hr
Infiltration Rate:	1.03 in/hr

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Not Applicable

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Not Applicable

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Goodman and Associates	Date	7/8/2022
Designed by	Aaron Skeers	Case No	
Company Project Number/Name	Palmyrita Avenue Warehouses		

BMP Identification

BMP NAME / ID: 1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
1/A	*266,282*	*Concrete or Asphalt*	*1*	*0.89*	*237523.5*			
1/C	*39379*	*Ornamental Landscaping*	*0.1*	*0.11*	*4349.7*			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Goodman and Associates	Date	7/8/2022
Designed by	Aaron Skeers	Case No	
Company Project Number/Name	Palmyrita Avenue Warehouses		

BMP Identification

BMP NAME / ID: 2

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
2/B	*262,039*	*Concrete or Asphalt*	*1*	*0.89*	*233738.8*			
2/D	*24,747*	*Ornamental Landscaping*	*0.1*	*0.11*	*2733.5*			

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Palmyrita Avenue Warehouses no.1
Engineer:	Aaron Skeers
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	12961 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	18 in.
Design Constraint Dimensions:	(26 ft. x 190 ft.)

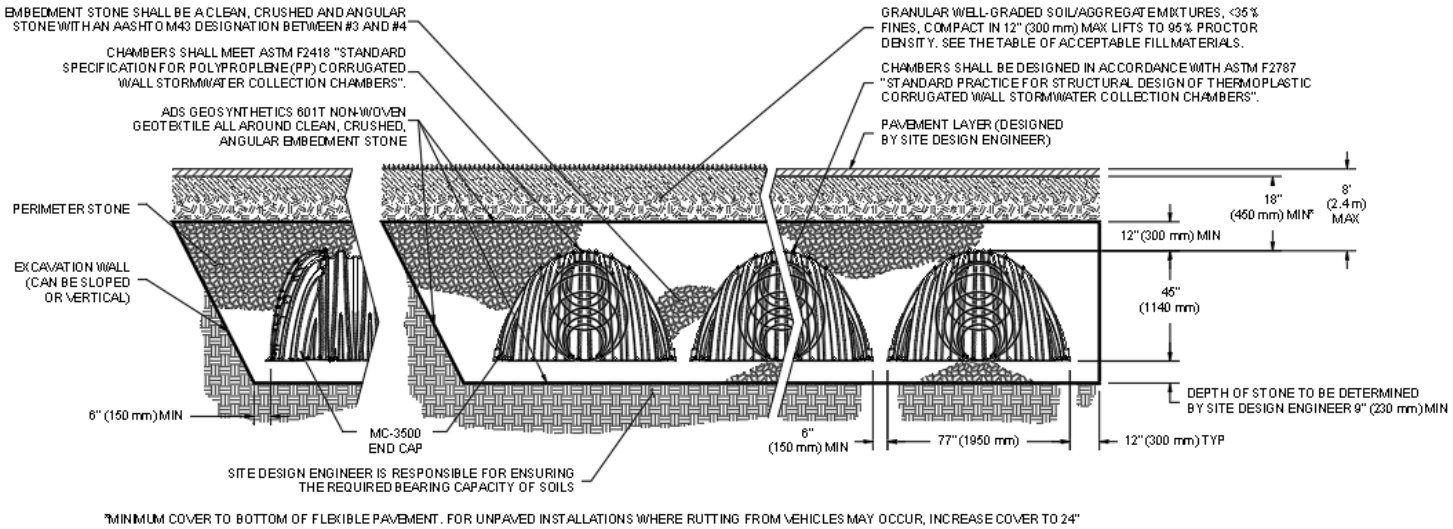
Results

System Volume and Bed Size

Installed Storage Volume:	13202.01 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	68
Number Of End Caps Required:	6
Chamber Rows:	3
Maximum Length:	174.72 ft.
Maximum Width:	22.85 ft.
Approx. Bed Size Required:	3938.39 square ft.

System Components

Amount Of Stone Required:	522.17 cubic yards
Volume Of Excavation (Not Including Fill):	802.26 cubic yards
Total Non-woven Geotextile Required:	1340.00 square yards
Woven Geotextile Required (excluding Isolator Row):	33.46 square yards
Woven Geotextile Required (Isolator Row):	196.68 square yards
Total Woven Geotextile Required:	230.14 square yards



NOAA Atlas 14, Volume 6, Version 2
Location name: Riverside, California, USA*
Latitude: 34.0055°, Longitude: -117.338°
Elevation: 932.58 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

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NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.090** (0.075-0.109)	**0.115** (0.096-0.140)	**0.149** (0.124-0.181)	**0.177** (0.146-0.217)	**0.216** (0.171-0.274)	**0.246** (0.191-0.319)	**0.277** (0.210-0.368)	**0.309** (0.228-0.424)	**0.354** (0.250-0.506)	**0.389** (0.265-0.576)
10-min	**0.128** (0.107-0.156)	**0.165** (0.137-0.200)	**0.213** (0.177-0.260)	**0.254** (0.209-0.311)	**0.309** (0.246-0.392)	**0.352** (0.274-0.457)	**0.397** (0.301-0.528)	**0.443** (0.327-0.607)	**0.507** (0.358-0.725)	**0.557** (0.380-0.826)
15-min	**0.155** (0.130-0.188)	**0.199** (0.166-0.242)	**0.258** (0.214-0.314)	**0.307** (0.253-0.376)	**0.374** (0.297-0.475)	**0.426** (0.331-0.553)	**0.480** (0.364-0.639)	**0.536** (0.395-0.734)	**0.613** (0.433-0.877)	**0.674** (0.459-0.999)
30-min	**0.235** (0.196-0.285)	**0.302** (0.251-0.366)	**0.391** (0.324-0.475)	**0.464** (0.382-0.569)	**0.565** (0.450-0.718)	**0.644** (0.502-0.836)	**0.726** (0.551-0.966)	**0.811** (0.598-1.11)	**0.928** (0.655-1.33)	**1.02** (0.695-1.51)
60-min	**0.344** (0.287-0.417)	**0.442** (0.368-0.536)	**0.572** (0.475-0.696)	**0.680** (0.560-0.834)	**0.828** (0.659-1.05)	**0.944** (0.735-1.23)	**1.06** (0.807-1.42)	**1.19** (0.875-1.63)	**1.36** (0.959-1.94)	**1.49** (1.02-2.21)
2-hr	**0.491** (0.410-0.595)	**0.627** (0.522-0.760)	**0.806** (0.669-0.980)	**0.953** (0.784-1.17)	**1.15** (0.918-1.47)	**1.31** (1.02-1.70)	**1.47** (1.12-1.96)	**1.64** (1.21-2.24)	**1.86** (1.32-2.67)	**2.04** (1.39-3.03)
3-hr	**0.601** (0.501-0.728)	**0.764** (0.637-0.927)	**0.981** (0.814-1.19)	**1.16** (0.953-1.42)	**1.40** (1.11-1.78)	**1.59** (1.24-2.06)	**1.78** (1.35-2.37)	**1.98** (1.46-2.71)	**2.25** (1.59-3.22)	**2.46** (1.68-3.65)
6-hr	**0.836** (0.697-1.01)	**1.07** (0.887-1.29)	**1.37** (1.13-1.66)	**1.61** (1.33-1.98)	**1.95** (1.55-2.47)	**2.20** (1.71-2.86)	**2.46** (1.87-3.28)	**2.73** (2.02-3.75)	**3.10** (2.19-4.44)	**3.39** (2.31-5.02)
12-hr	**1.11** (0.921-1.34)	**1.42** (1.18-1.72)	**1.82** (1.51-2.22)	**2.15** (1.77-2.64)	**2.60** (2.07-3.30)	**2.94** (2.29-3.82)	**3.29** (2.50-4.38)	**3.65** (2.69-5.00)	**4.13** (2.92-5.91)	**4.51** (3.07-6.68)
24-hr	**1.47** (1.30-1.69)	**1.90** (1.68-2.19)	**2.46** (2.17-2.84)	**2.91** (2.55-3.40)	**3.53** (2.99-4.25)	**4.00** (3.32-4.92)	**4.48** (3.63-5.64)	**4.97** (3.92-6.43)	**5.63** (4.26-7.59)	**6.14** (4.49-8.56)
2-day	**1.79** (1.58-2.06)	**2.35** (2.08-2.71)	**3.09** (2.72-3.57)	**3.69** (3.23-4.30)	**4.51** (3.82-5.43)	**5.13** (4.26-6.31)	**5.77** (4.67-7.27)	**6.43** (5.07-8.32)	**7.31** (5.54-9.86)	**8.00** (5.86-11.2)
3-day	**1.91** (1.69-2.20)	**2.56** (2.26-2.95)	**3.40** (3.00-3.94)	**4.10** (3.59-4.78)	**5.05** (4.28-6.09)	**5.79** (4.80-7.12)	**6.54** (5.30-8.24)	**7.32** (5.77-9.47)	**8.38** (6.34-11.3)	**9.20** (6.73-12.8)
4-day	**2.05** (1.82-2.37)	**2.77** (2.45-3.20)	**3.73** (3.29-4.31)	**4.51** (3.95-5.26)	**5.59** (4.73-6.73)	**6.42** (5.33-7.90)	**7.28** (5.89-9.16)	**8.16** (6.44-10.6)	**9.38** (7.10-12.6)	**10.3** (7.56-14.4)
7-day	**2.36** (2.09-2.72)	**3.22** (2.85-3.72)	**4.36** (3.85-5.05)	**5.31** (4.64-6.19)	**6.60** (5.59-7.96)	**7.62** (6.32-9.37)	**8.65** (7.01-10.9)	**9.73** (7.67-12.6)	**11.2** (8.49-15.1)	**12.4** (9.06-17.3)
10-day	**2.56** (2.27-2.95)	**3.51** (3.11-4.06)	**4.79** (4.22-5.54)	**5.84** (5.11-6.81)	**7.29** (6.17-8.79)	**8.43** (6.99-10.4)	**9.59** (7.77-12.1)	**10.8** (8.52-14.0)	**12.5** (9.45-16.8)	**13.8** (10.1-19.3)
20-day	**3.10** (2.75-3.58)	**4.30** (3.80-4.96)	**5.91** (5.21-6.84)	**7.25** (6.34-8.46)	**9.12** (7.72-11.0)	**10.6** (8.78-13.0)	**12.1** (9.81-15.3)	**13.7** (10.8-17.8)	**15.9** (12.1-21.5)	**17.7** (13.0-24.7)
30-day	**3.69** (3.26-4.25)	**5.11** (4.52-5.90)	**7.04** (6.21-8.15)	**8.66** (7.57-10.1)	**10.9** (9.25-13.2)	**12.7** (10.6-15.6)	**14.6** (11.8-18.4)	**16.6** (13.1-21.5)	**19.3** (14.6-26.1)	**21.5** (15.7-30.0)
45-day	**4.42** (3.91-5.09)	**6.10** (5.39-7.04)	**8.39** (7.40-9.71)	**10.3** (9.03-12.0)	**13.0** (11.0-15.7)	**15.2** (12.6-18.7)	**17.5** (14.2-22.0)	**19.9** (15.7-25.8)	**23.3** (17.6-31.4)	**26.0** (19.0-36.3)
60-day	**5.16** (4.57-5.95)	**7.08** (6.25-8.16)	**9.69** (8.54-11.2)	**11.9** (10.4-13.9)	**15.0** (12.7-18.1)	**17.5** (14.5-21.6)	**20.2** (16.3-25.4)	**23.0** (18.1-29.7)	**26.9** (20.4-36.3)	**30.1** (22.0-42.0)

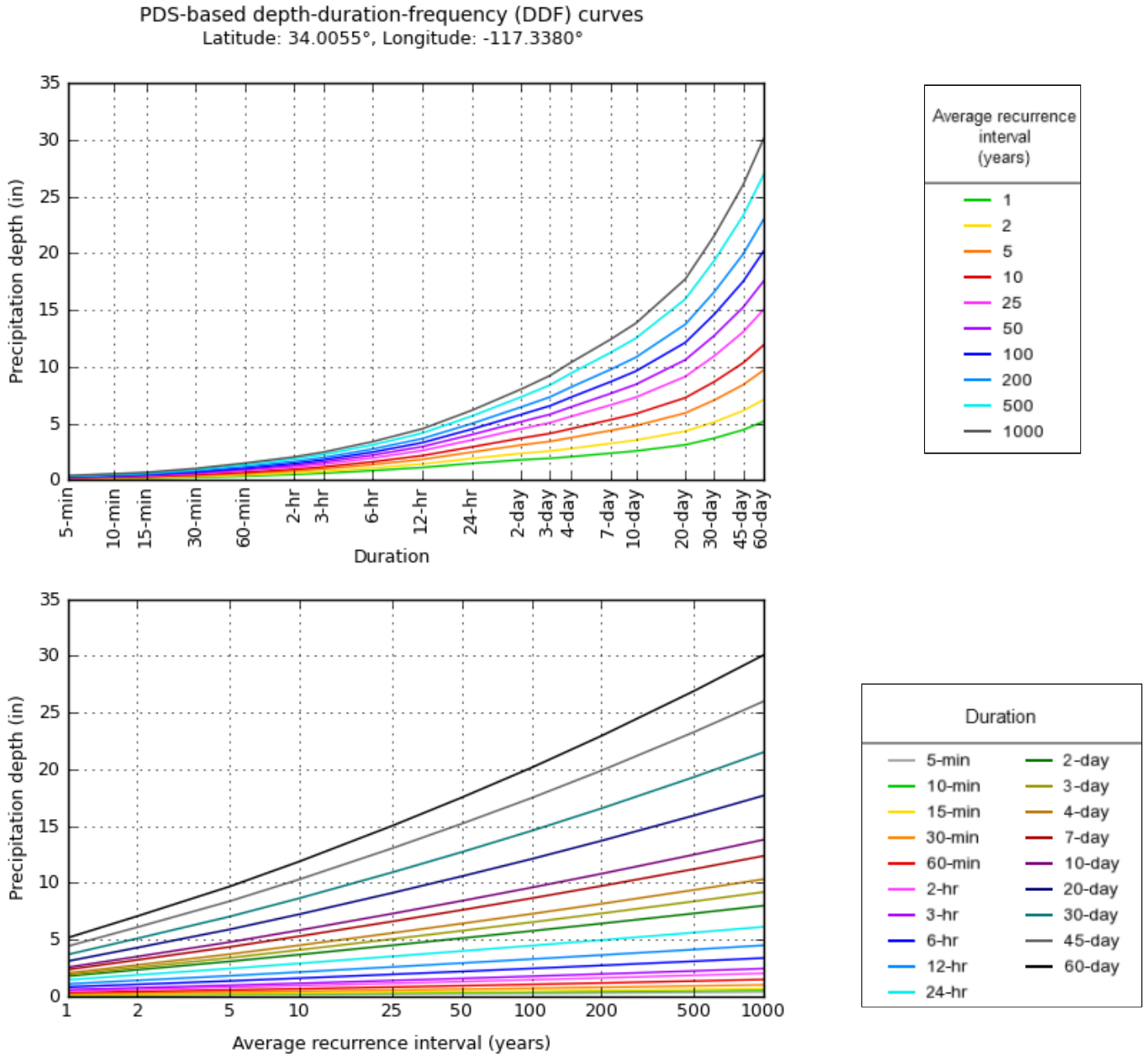
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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Questions?: HDSC.Questions@noaa.gov

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Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

PALMYRITA AVENUE WAREHOUSES NO.1

RIVERSIDE, CA

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

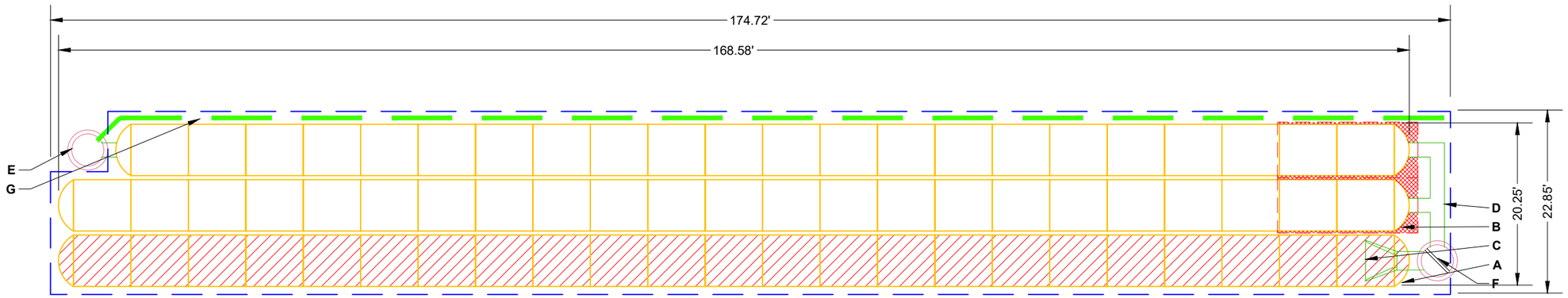
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

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PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS	
68	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.50
6	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	6.50
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	6.00
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	6.00
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	6.00
13204	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	5.50
		TOP OF MC-3500 CHAMBER:	4.50
		24" ISOLATOR ROW PLUS INVERT:	0.92
		18" x 18" BOTTOM MANIFOLD INVERT:	0.90
3938	SYSTEM AREA (SF)	18" BOTTOM CONNECTION INVERT:	0.90
395.1	SYSTEM PERIMETER (ft)	BOTTOM OF MC-3500 CHAMBER:	0.75
		UNDERDRAIN INVERT:	0.00
		BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.06"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS	1.77"	
FLAMP	C	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC350024RAMP		
MANIFOLD	D	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
CONCRETE STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		4.0 CFS OUT
CONCRETE STRUCTURE W/WEIR	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		11.0 CFS IN
UNDERDRAIN	G	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

PALMYRITA AVENUE
WAREHOUSES NO.1
RIVERSIDE, CA

DATE:
DRAWN: AS
CHECKED: N/A
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

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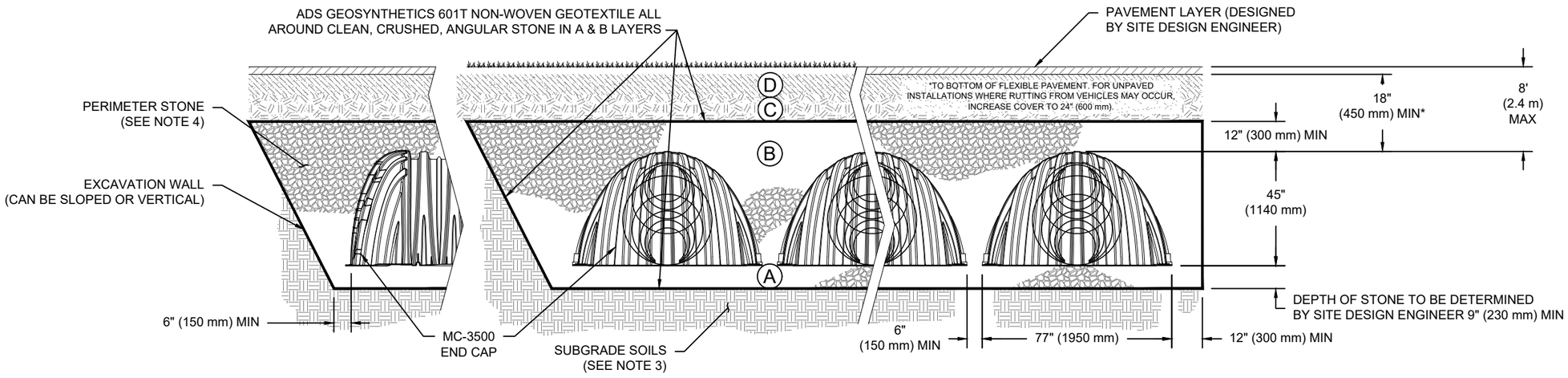
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 15' 30'

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

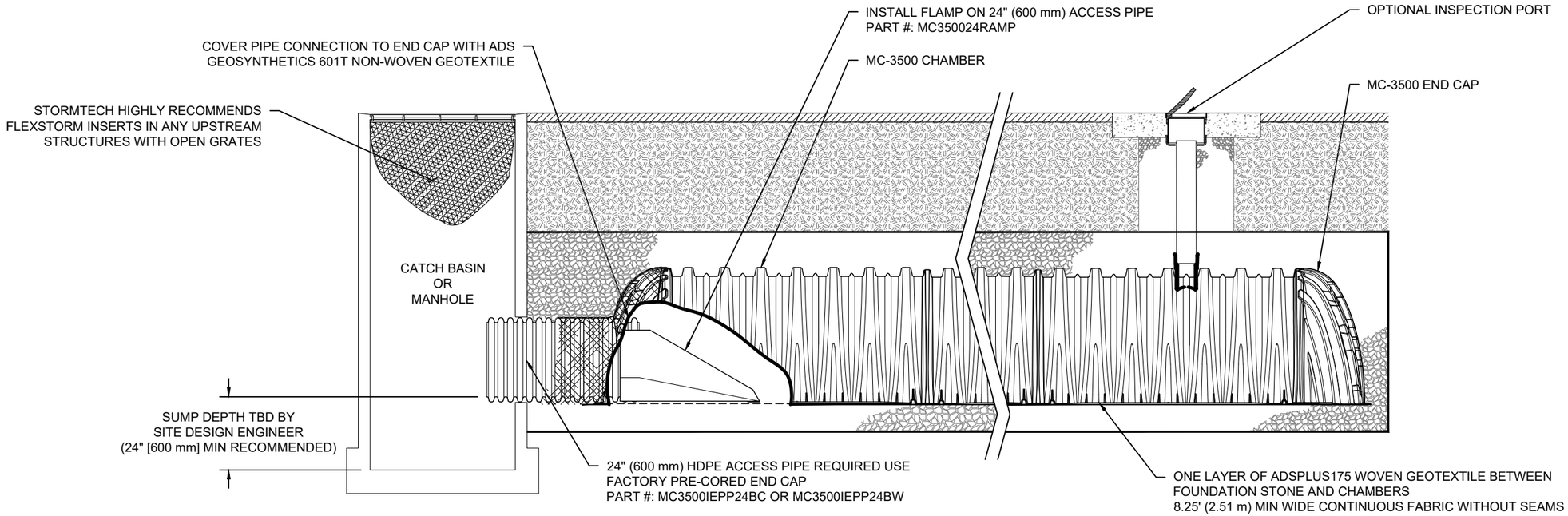
PALMYRITA AVENUE WAREHOUSES NO.1
RIVERSIDE, CA
DRAWN: AS
CHECKED: N/A
DATE:
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

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MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

PALMYRITA AVENUE
WAREHOUSES NO.1
RIVERSIDE, CA

DATE: | DRAWN: AS | CHECKED: N/A
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

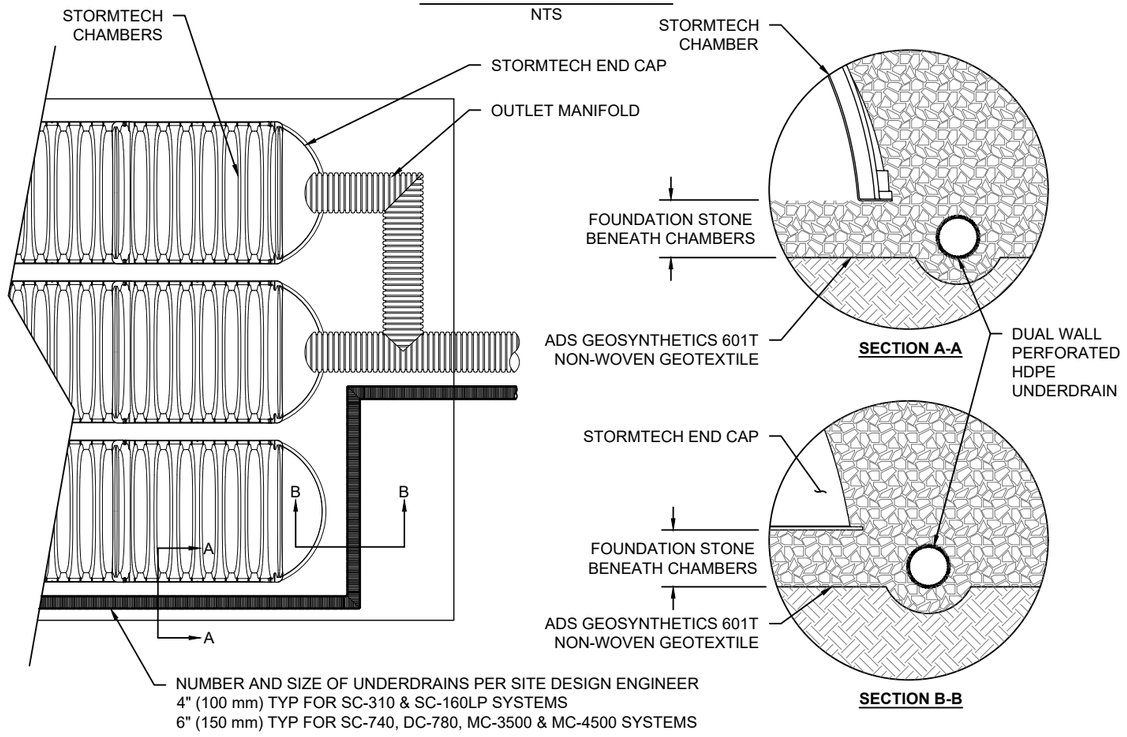
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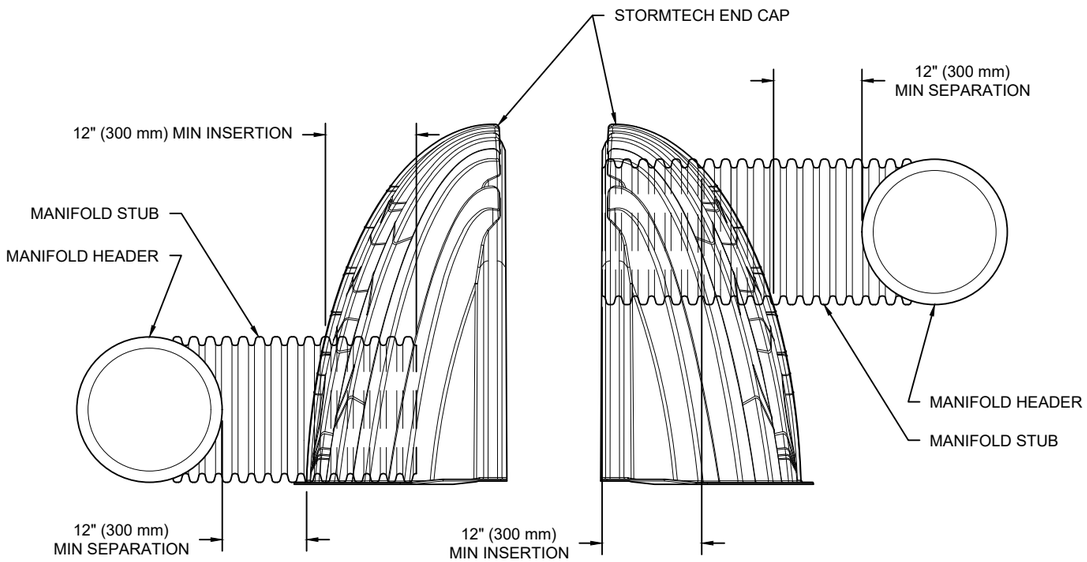
UNDERDRAIN DETAIL

NTS



MC-SERIES END CAP INSERTION DETAIL

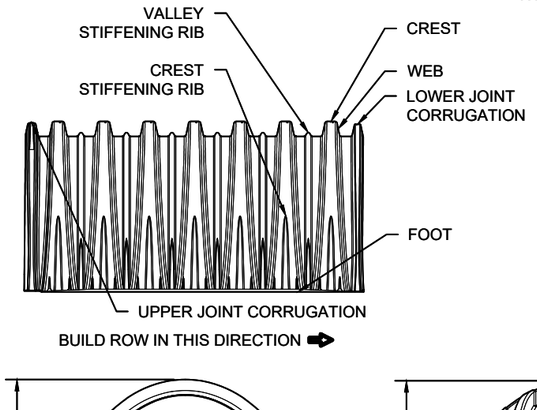
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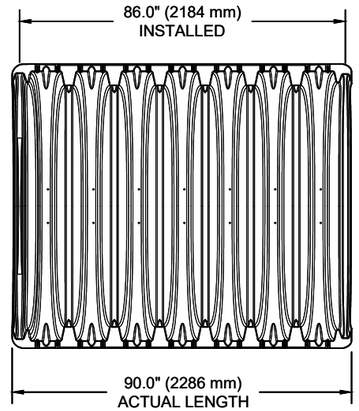


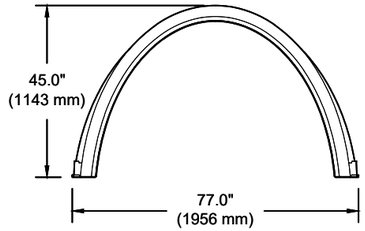
NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

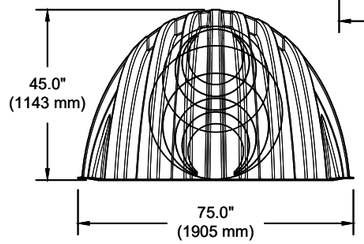
MC-3500 TECHNICAL SPECIFICATION

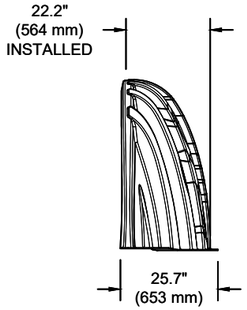
NTS











NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

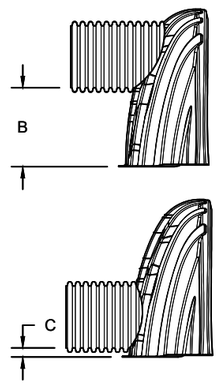
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

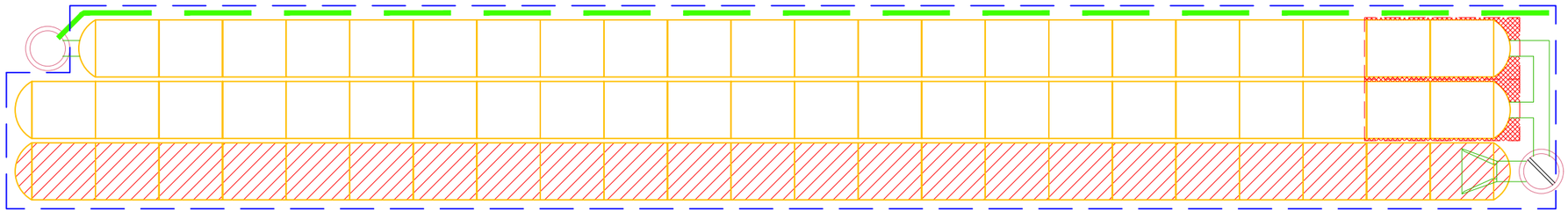
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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

PALMYRITA AVENUE WAREHOUSES NO. 2

RIVERSIDE, CA

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

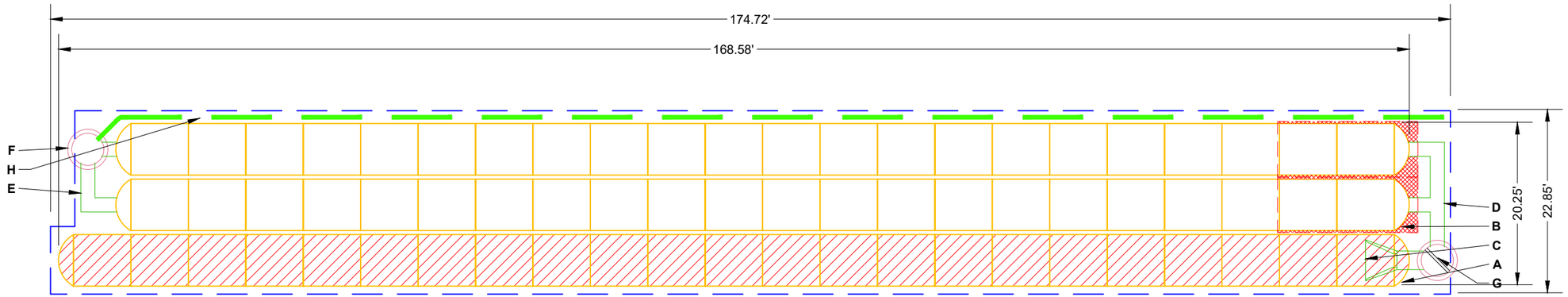
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

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PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS	
67	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.50
6	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	6.50
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	6.00
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	6.00
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	6.00
13160	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	5.50
		TOP OF MC-3500 CHAMBER:	4.50
		24" ISOLATOR ROW PLUS INVERT:	0.92
		18" x 18" BOTTOM MANIFOLD INVERT:	0.90
3948	SYSTEM AREA (SF)	18" x 18" BOTTOM MANIFOLD INVERT:	0.90
395.1	SYSTEM PERIMETER (ft)	18" BOTTOM CONNECTION INVERT:	0.90
		BOTTOM OF MC-3500 CHAMBER:	0.75
		UNDERDRAIN INVERT:	0.00
		BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.06"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS	1.77"	
FLAMP	C	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC350024RAMP		
MANIFOLD	D	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
MANIFOLD	E	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
CONCRETE STRUCTURE	F	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		8.0 CFS OUT
CONCRETE STRUCTURE W/WEIR	G	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		11.0 CFS IN
UNDERDRAIN	H	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

PALMYRITA AVENUE
WAREHOUSES NO. 2
RIVERSIDE, CA

DRAWN: AS
CHECKED: N/A
DATE:
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

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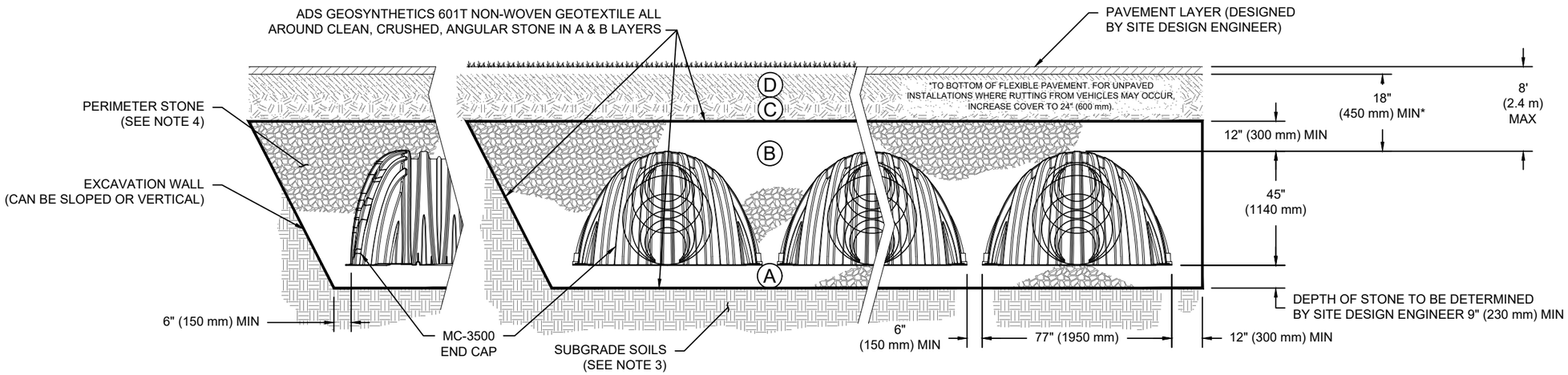
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HILLIARD, OH 43026
1-800-733-7473

0 15' 30'

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

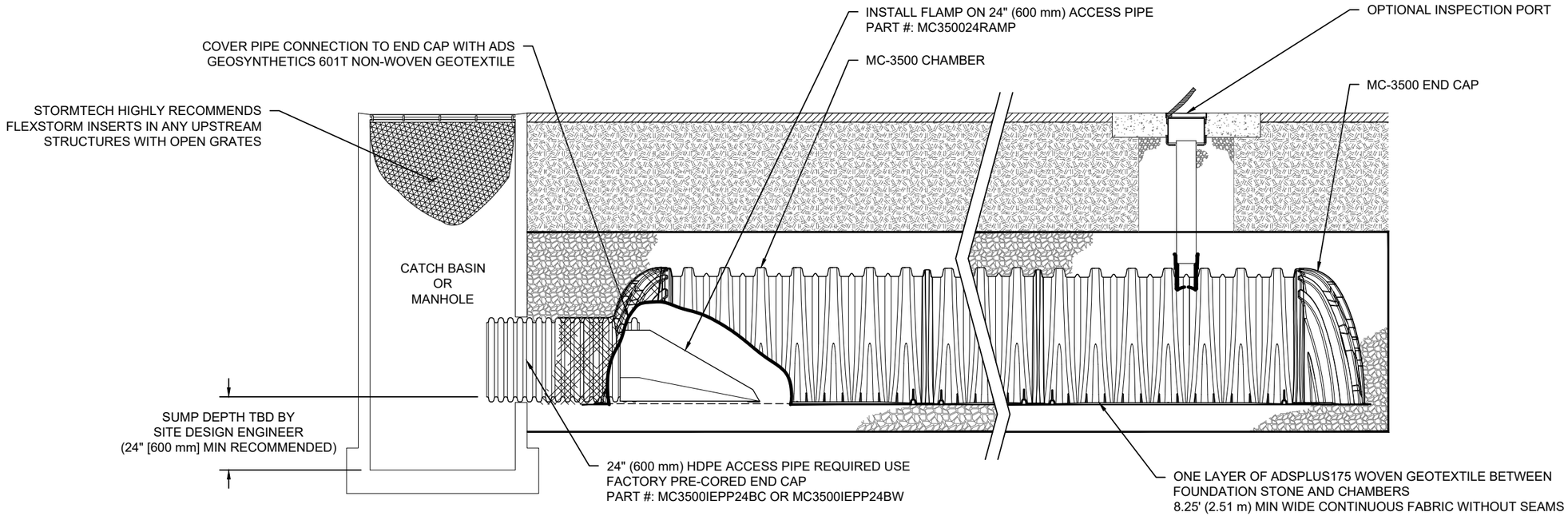
PALMYRITA AVENUE WAREHOUSES NO. 2
RIVERSIDE, CA
DATE: DRAWN: AS CHECKED: N/A
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

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MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

PALMYRITA AVENUE
WAREHOUSES NO. 2
RIVERSIDE, CA

DATE: | DRAWN: AS | PROJECT #: | CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

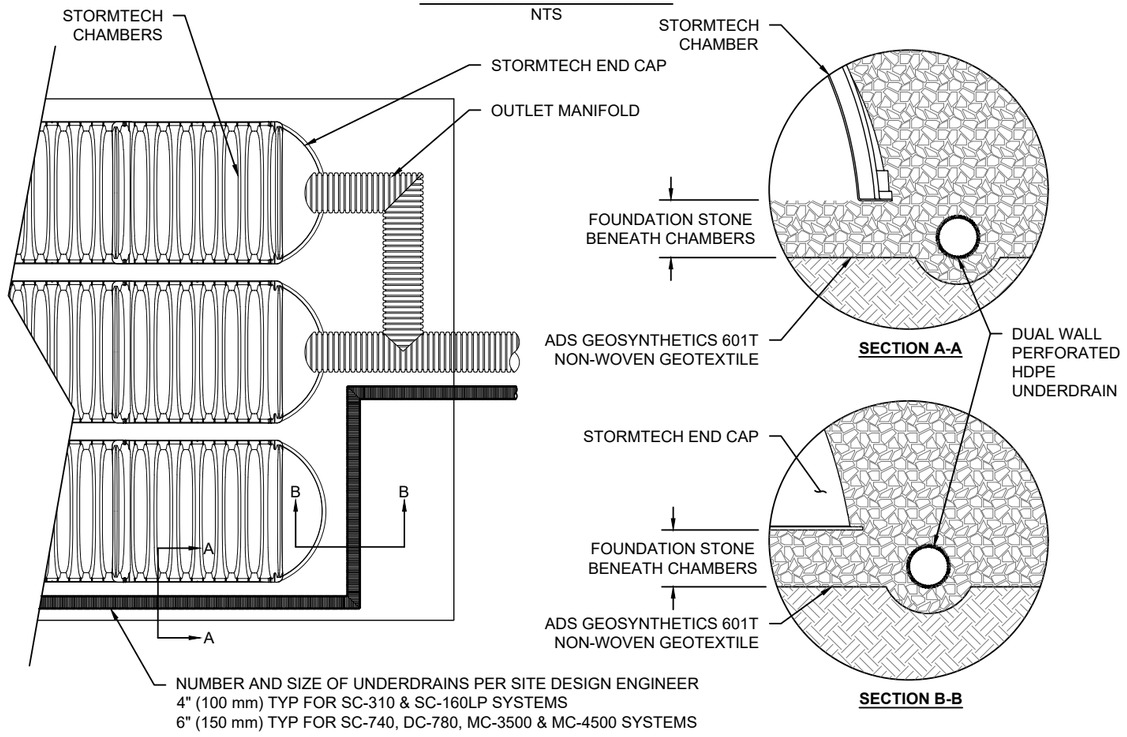
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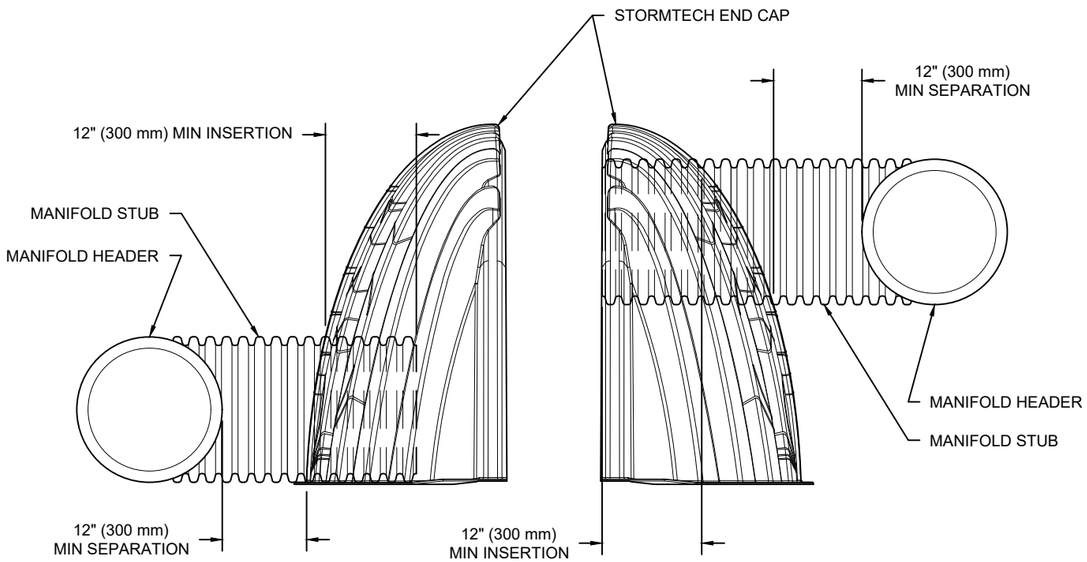
UNDERDRAIN DETAIL

NTS



MC-SERIES END CAP INSERTION DETAIL

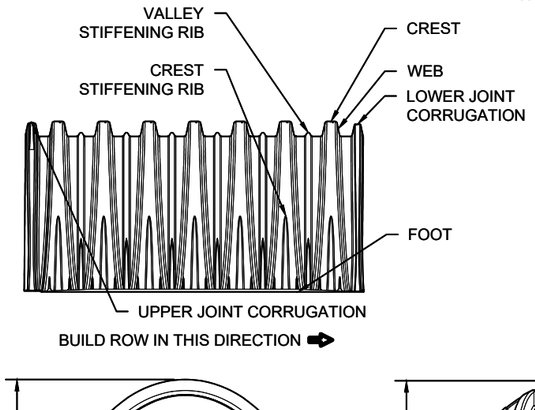
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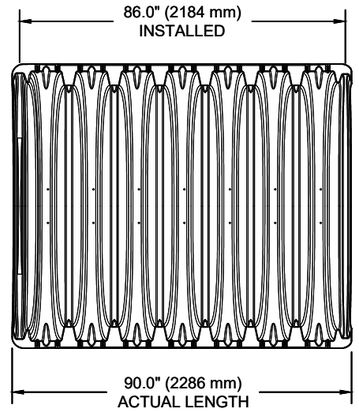


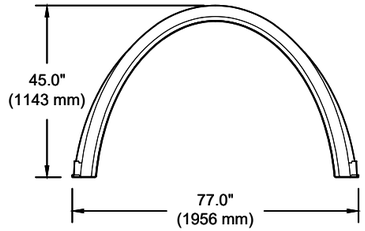
NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

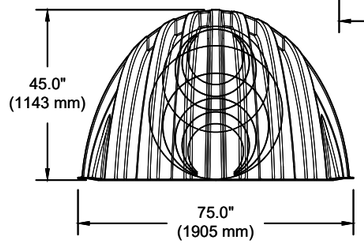
MC-3500 TECHNICAL SPECIFICATION

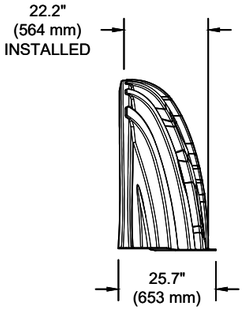
NTS











NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

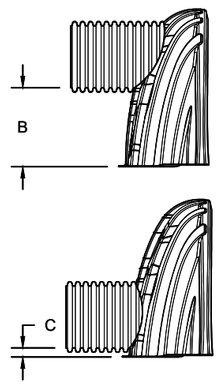
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

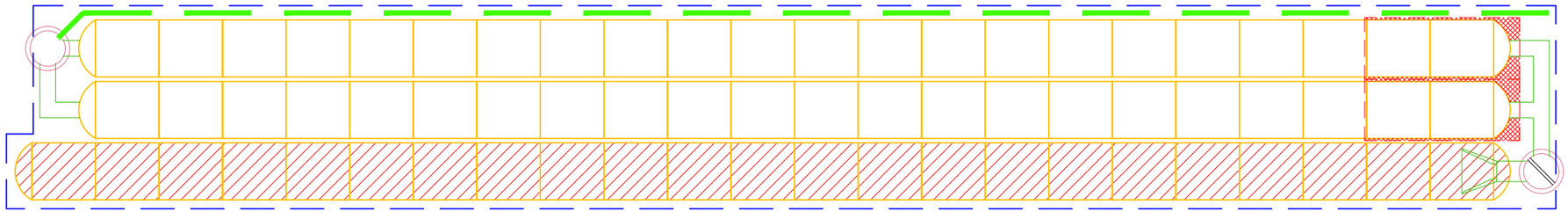
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Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

HCOC Applicability Map

WQMP Report

County of Riverside Stormwater Project

Santa Ana River Watershed Geodatabase

Report generated: Thu Jul 07 2022 10:19:47 GMT-0700 (Pacific Daylight Time)

Note: The information provided in this report and on the Stormwater Geodatabase for the County of Riverside Stormwater Program is intended to provide basic guidance in the preparation of the applicant's Water Quality Management Plan (WQMP) and should not be relied upon without independent verification. All searches will include any data found within 200 feet of the provided coordinates unless otherwise noted.

Center Point	34.00581950530195, -117.33695089794539
Map	
Parcel Number(s)	247170020, 247140034, 249060024, 249060025, 247170030, 249040015, 247170047, 247170024, 247170042, 249060003, 249060021, 247170039,

	247170023, 249060004, 247170046, 249060020, 247170021, 247140009, 247140035, 249060033
Site Acreage	13.06
Watershed(s)	SANTA ANA
Cities (within 1 mile)	RIVERSIDE
Hydrologic Units	**HUC Number**: 180702030804 — **HUC Name**: East Etiwanda Creek-Santa Ana River
The HUCs Contribute stormwater to the following 303d listed water bodies and TMDLs which may include drainage from your proposed Project Site	**WBID Number**: CAR8012100019990211140353 — **WBID Name**: Santa Ana River, Reach 3
These 303d listed water bodies and TMDLs have the following Pollutants of Concern (POC)	**Category**: Bacterial Indicators — **Pollutants**: Pathogens **Category**: Metals/Metalloids — **Pollutants**: Copper **Category**: Metals/Metalloids — **Pollutants**: Lead
Is the Project Site subject to Hydromodification?	NO
Limitations of Infiltration	**Onsite Soils Group(s)**: C / A **Known Groundwater Contamination Plumes**: NO

(within 1000 ft)	
Adjacent Water Wells	NO - Please contact your local water agency for more information.
Local Supplier	CITY OF RIVERSIDE W.S.A
Wholesale Supplier	METROPOLITAN WATER DISTRICT

Environmentally Sensitive Areas within 200 feet

Fish and Wildlife Habitat/Species	• None found
CVMSHCP	• None found
WRMSHCP	• Burrowing Owl Survey Required Area

Groundwater Elevation from Mean Sea Level	795 ft.
85th Percentile Design Storm Depth	0.643 in.
Groundwater Basin	Riverside-F
MSHCP / CVMSHCP Criteria Cell(s)	No data

Retention Ordinance Information

City	Ordinance	Description	Storm Event (Required Design Capture Volume)
No ordinances found			

Related Studies and Reports

- IBI Scores - Southern Cal.pdf
- RiversideBasin.pdf

	• bulletin118_4-sc.pdf • WaterFacts2022.pdf • 8039-SAR-Hydromodification.pdf • CBRP.pdf • University MDP.pdf • 2012 Annual Report of SAR.pdf

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	**... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE**		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☒ **A.** On-site storm drain inlets	☒ Locations of inlets.	☒ Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	☒ Maintain and periodically repaint or replace inlet markings. ☒ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☒ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☒ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☐ **B.** Interior floor drains and elevator shaft sump pumps		☐ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.
☒ **D2.** Landscape/ Outdoor Pesticide Use	☐ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☒ Show self-retaining landscape areas, if any. ☐ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☐ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☒ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☒ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☒ Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☒ Maintain landscaping using minimum or no pesticides. ☒ See applicable operational BMPs in "What you should know for…..Landscape and Gardening" at http://rcflood.org/stormwater/Error! Hyperlink reference not valid. ☒ Provide IPM information to new owners, lessees and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☐ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
☐ **F.** Food service	☐ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☐ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☐ Describe the location and features of the designated cleaning area. ☐ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☐ See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ **Provide this brochure to new site owners, lessees, and operators.**
☐ **G.** Refuse areas	☒ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☐ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☐ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☒ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☒ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☒ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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❑ **H.** Industrial processes.	❑ Show process area.	❑ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	❑ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
❑ **J.** Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	❑ If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑ **Car dealerships and similar may rinse cars with water only.**

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ❑ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ❑ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	❑ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ❑ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ❑ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the Stormwater Control Plan, note that all of the following restrictions apply to use the site: ❑ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ❑ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ❑ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment. Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

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☐ **L.** Fuel Dispensing Areas	☐ Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ☐ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		☐ The property owner shall dry sweep the fueling area routinely. ☐ See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
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❑ **M.** Loading Docks	❑ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ❑ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ❑ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		❑ Move loaded and unloaded items indoors as soon as possible. ❑ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☐ **N.** Fire Sprinkler Test Water		☐ Provide a means to drain fire sprinkler test water to the sanitary sewer.	☐ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water or Other Sources ☐ Boiler drain lines ☒ Condensate drain lines ☐ Rooftop equipment ☐ Drainage sumps ☐ Roofing, gutters, and trim. ☐ Other sources		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☒ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☐ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☐ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☒ **P.** Plazas, sidewalks, and parking lots.			☒ Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

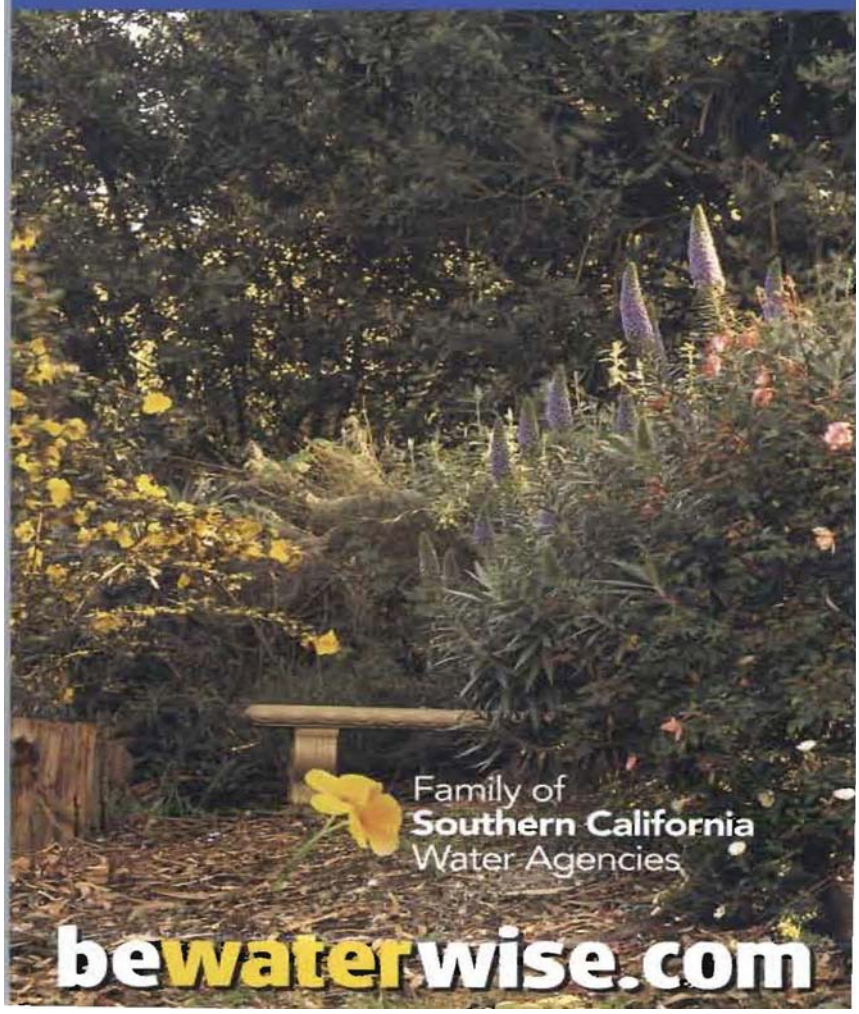
Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

10 Ways to Save Water Outdoors



TIP #1 The average homeowner uses twice the amount of water needed to keep plants healthy. Use the watering calculator and index at **bewaterwise.com** to know exactly how much water your plants need.

TIP #2 Check your sprinkler system for leaks, overspray and broken sprinkler heads. Update with drip or other more water-efficient sprinklers where appropriate.

TIP #3 This fall, plant a portion of your garden with beautiful native and California Friendly plants. Browse the plant database at **bewaterwise.com** to find just the right look for your outdoor spaces.

TIP #4 Reduce the amount of water-thirsty grass. Keep only what you need and replace the rest with less-thirsty plants or permeable paving.

TIP #5 For the grass you keep, set your lawnmower blade higher.

TIP #6 Adjust your sprinkler timer downward in September. Plants need less water when days are shorter.

TIP #7 Use a broom instead of the hose for cleaning sidewalks and patios.

TIP #8 Mulch! A layer of bark, gravel, compost, sawdust or low-growing groundcover evens out soil temperature and allows better water retention.

TIP #9 Check the list of invasive plants that hurt our environment at **caleppc.org** and remove any from your garden.

TIP #10 Share these tips with your gardener, neighbors and friends. Water conservation should be a part of every Southern Californian's lifestyle, but that doesn't mean we can't have lush and beautiful outdoor spaces.

bewaterwise.com

For Information:

Local Sewering Agencies in Riverside County:

City of Beaumont	(909) 769-8520
Belair Homeowners Association	(909) 277-1414
City of Banning	(909) 922-3130
City of Blythe	(760) 922-6161
City of Coachella	(760) 391-5008
Coachella Valley Water District	(760) 398-2651
City of Corona	(909) 736-2259
Desert Center, CSA #51	(760) 227-3203
Eastern Municipal Water District	(909) 928-3777
Elsinore Valley MWD	(909) 674-3146
Farm Mutual Water Company	(909) 244-4198
Idyllwild Water District	(909) 659-2143
Jurupa Community Services Dist.	(909) 685-7434
Lake Hemet MWD	(909) 658-3241
Lee Lake Water District	(909) 277-1414
March Air Force Base	(909) 656-7000
Mission Springs Water District	(760) 329-6448
City of Palm Springs	(760) 323-8242
Rancho Caballero	(909) 780-9272
Rancho California Water Dist.	(909) 676-4101
Ripley, CSA #62	(760) 922-4909
Rubidoux Community Services Dist.	(909) 684-7580
City of Riverside	(909) 782-5341
Silent Valley Club, Inc	(909) 849-4501
Valley Sanitary District	(760) 347-2356
Western Municipal Water District	(909) 780-4170

Spill Response Agency:
Haz-Mat: (909) 358-5055
Hazardous Waste Disposal: (909) 358-5055
To Report Illegal Dumping or a Clogged Storm Drain: 1-800-506-2555

StormWater CleanWater
PROTECTION PROGRAM

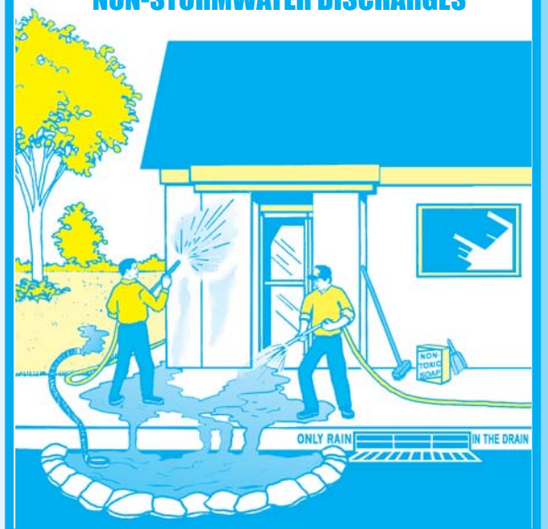
Riverside County gratefully acknowledges the Bay Area Stormwater Management Agencies Association and the Cleaning Equipment Trade Association for information provided in this brochure.

StormWater Pollution

What you should know for...

OUTDOOR CLEANING ACTIVITIES

NON-STORMWATER DISCHARGES



GUIDELINES for disposal of washwater from:

- Sidewalk, plaza or parking lot cleaning
- Vehicle washing or detailing
- Building exterior cleaning
- Waterproofing
- Equipment cleaning or degreasing

Do you know . . . where the water should go?



Riverside County has two drainage systems - sanitary sewers and storm drains. The storm drain system is designed to prevent flooding by carrying excess rainwater away from streets. . . it's not designed to be a waste disposal system. Since the storm drain system does not provide for water treatment, it often serves the unintended function of transporting pollutants directly to our waterways.

Unlike sanitary sewers, storm drains are not connected to a treatment plant - they flow directly to our local streams, rivers and lakes.

Non-stormwater discharges such as washwater generated from outdoor cleaning projects often transport harmful pollutants into storm drains and our local waterways. Polluted runoff contaminates local waterways and poses a threat to groundwater resources.

Soaps, degreasers, automotive fluids, litter, and a host of other materials washed off buildings, sidewalks, plazas, parking areas, vehicles, and equipment can all pollute our waterways.

The Cities and County of Riverside StormWater/CleanWater Protection Program

Since preventing pollution is much easier, and less costly than cleaning up "after the fact," the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses of pollution prevention activities such as those described in this pamphlet.

The Cities and County of Riverside have adopted ordinances for stormwater management and discharge control. In accordance with state and federal law, these local stormwater ordinances **prohibit** the discharge of wastes into the storm drain system or local surface waters. This includes non-stormwater discharges containing oil, grease, detergents, degreasers, trash, or other waste materials.



PLEASE NOTE: The discharge of pollutants into the street, gutters, storm drain system, or waterways - without a Regional Water Quality Control Board permit or waiver - is ***strictly prohibited*** by local ordinances and state and federal law.

Help Protect Our Waterways!

Use These Guidelines For Outdoor Cleaning Activities and Washwater Disposal

DO . . . Dispose of **small amounts** of **washwater from cleaning building exteriors, sidewalks, or plazas** onto landscaped or unpaved surfaces provided you have the owner's permission and the discharge will not cause flooding or nuisance problems, or flow into a storm drain.

DO NOT . . . Discharge **large amounts** of these types of washwater onto landscaped areas or soil where water may run to a street or storm drain. Wastewater from exterior cleaning may be pumped to a sewer line with specific permission from the local sewering agency.

DO . . . Check with your local sewering agency's policies and requirements concerning waste water disposal. **Water from many outdoor cleaning activities** may be acceptable for disposal to the sewer system. See the list on the back of this flyer for phone numbers of the sewering agencies in your area.

DO NOT . . . Pour **hazardous wastes** or toxic materials into the storm drain or sewer system . . . properly dispose of it instead. When in doubt, contact the local sewering agency! The agency will tell you what types of liquid wastes can be accepted.

DO . . . Understand that **water (without soap) used to remove dust from clean vehicles** may be discharged to a street or storm drain. **Washwater from sidewalk, plaza, and building surface cleaning** may go into a street or storm drain if ALL of the following conditions are met:

1) The surface being washed is free of residual oil stains, debris and similar pollutants by using dry cleanup methods (sweeping, and cleaning any oil or chemical spills with rags or other absorbent materials before using water).
2) Washing is done with water only - no soap or other cleaning materials.
3) You have not used the water to remove paint from surfaces during cleaning.

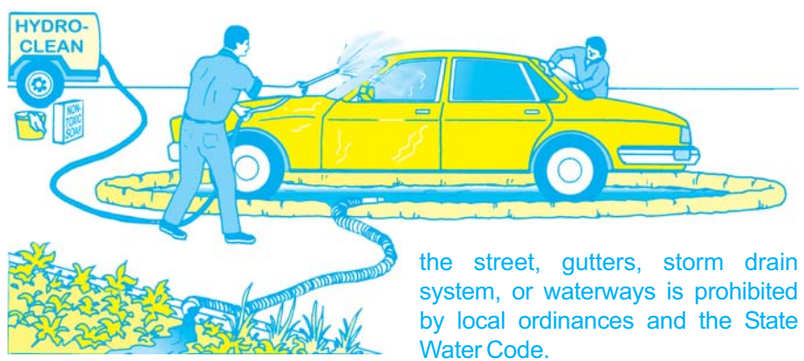
DO NOT . . . Dispose of water containing **soap or any other type of cleaning agent** into a storm drain or water body. This is a direct violation of state and/or local regulations. Because **wastewater from cleaning parking areas or roadways** normally contains metallic brake pad dust, oil and other automotive fluids, it should never be discharged to a street, gutter, or storm drain.

DO . . . Understand that **mobile auto detailers** should divert washwater to landscaped or dirt areas. Note: Be aware that soapy washwater may adversely affect landscaping; consult with the property owner. Residual washwater may remain on paved surfaces to evaporate; sweep up any remaining residue. If there is sufficient water volume to reach the storm drain, collect the runoff and obtain permission to pump it into the sanitary sewer. Follow local sewering agency's requirements for disposal.

DO NOT . . . Dispose of left over cleaning agents into the gutter, storm drain or sanitary sewer.

Regarding Cleaning Agents:

If you must use soap, use biodegradable/phosphate free cleaners. Avoid use of petroleum based cleaning products. Although the use of nontoxic cleaning products is strongly encouraged, ***do*** understand that these products can still degrade water quality and, therefore, the discharge of these products into



the street, gutters, storm drain system, or waterways is prohibited by local ordinances and the State Water Code.

Note: When cleaning surfaces with a high pressure washer or steam cleaning methods, additional precautions should be taken to prevent the discharge of pollutants into the storm drain system. These two methods of surface cleaning, as compared to the use of a low pressure hose, can remove additional materials that can contaminate local waterways.

Other Tips to Help Protect Our Water . . .

Screening Wash Water

A thorough dry cleanup before washing (without soap) surfaces such as building exteriors and decks without loose paint, sidewalks, or plaza areas, *should be sufficient to protect storm drains.* **However**, if any debris (solids) could enter storm drains or remain in the gutter or street after cleaning, washwater should first pass through a "20 mesh" or finer screen to catch the solid material, which should then be disposed of in the trash.

Drain Inlet Protection/ Containing & Collecting Wash Water

- Sand bags can be used to create a barrier around storm drain inlets.
- Plugs or rubber mats can be used to temporarily seal storm drain openings.
- You can also use vacuum booms, containment pads, or temporary berms to keep wash water away from the street, gutter, or storm drain.

Equipment and Supplies

Special materials such as absorbents, storm drain plugs and seals, small sump pumps, and vacuum booms are available from many vendors. For more information check catalogs such as New Pig (800-468-4647), Lab Safety Supply (800-356-0783), C&H (800-558-9966), and W.W. Grainger (800-994-9174); or call the Cleaning Equipment Trade Association (800-441-0111) or the Power Washers of North America (800-393-PWNA).

For Information:

For information on “closed-loop” suppliers and recycling/disposal vendors, contact:
County of Riverside
Health Services Agency
Department of Environmental Health
at (909) 358-5055.

Spill Response Agency:
Haz-Mat: (909) 358-5055
After 5:00 p.m.: (909) 358-5245 or 911

Recycling and Hazardous Waste Disposal: (909) 358-5055

To Report Illegal Dumping or a Clogged Storm Drain: 1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, call: (909) 955-1111.

The Cities and County of Riverside
StormWater/CleanWater Protection Program
1-800-506-2555

StormWater CleanWater
PROTECTION PROGRAM

Riverside County gratefully acknowledges the Santa Clara Valley Nonpoint Source Pollution Control Program and the City of Los Angeles Stormwater Management Division for information provided in this brochure.

StormWater Pollution

What you should know for...

AUTOMOTIVE MAINTENANCE & CAR CARE



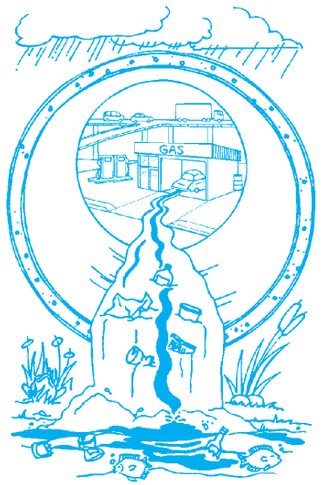
Best Management Practices (BMPS) for:

- Auto Body Shops
- Auto Repair Shops
- Car Dealerships
- Gas Stations
- Fleet Service Operations

StormWater Pollution . . . What You Should Know

Riverside County has two drainage systems - sanitary sewers and storm drains. The storm drain system is designed to help prevent flooding by carrying excess rainwater away from streets. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our waterways.

Unlike sanitary sewers, storm drains are not connected to a treatment plant - they flow directly to our local streams, rivers and lakes.



Rain and water runoff from automotive shops and businesses can carry pollutant material into storm drains. Examples of pollutants include oil and grease from cars, copper and asbestos from worn brake linings, zinc from tires, and toxics from spilled fluids.

Stormwater pollution causes as much as 60% of our water pollution problem. It jeopardizes the quality of our waterways and poses a threat to groundwater resources if pollutants percolate through soil.

The Cities and County of Riverside StormWater/CleanWater Protection Program

Since preventing pollution is much easier, and less costly, than cleaning up “after the fact,” the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses on pollution prevention activities such as the Best Management Practices (BMPs) described in this pamphlet.

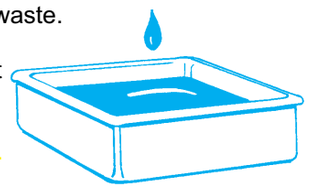
The Cities and County of Riverside have adopted ordinances for stormwater management and discharge control. In accordance with state and federal law, these local stormwater ordinances **prohibit** the discharge of wastes into the storm drain system or local surface waters. This includes discharges containing oil, antifreeze, gasoline and other waste materials.

PLEASE NOTE: A common stormwater pollution problem associated with automotive shops and businesses is the hosing down of service bays, parking and other areas. Often, this activity flushes pollutants into the storm drain system. The discharges of pollutants is ***strictly prohibited*** by local ordinances and state and federal regulations.

Keep your shop in tune. Follow these Practices to help prevent stormwater pollution . . .

1. Changing Automotive Fluids

- Designate an area away from storm or sanitary drains to change automotive fluids.
- Collect, separate, and recycle motor oil, antifreeze, transmission fluid, and gear oil.
- Drain brake fluid and other non-recyclables into a proper container and handle as a hazardous waste.
- Use a radiator flushing fluid that can be recycled, and add it to the waste antifreeze.



2. Working on Transmissions, Engines, and Miscellaneous Repairs

- Keep a drip pan or a wide low-rimmed container under vehicles to catch fluids whenever you unclip hoses, unscrew filters, or change parts, to contain unexpected leaks.

3. Preventing Leaks and Spills

- Avoid spills by emptying and wiping drip pans when you move them to another vehicle or when they are half-full.
- Routinely check equipment to wipe up spills and repair leaks.
- Place large pans or an inflatable portable berm under wrecked cars.
- Drain all fluids from wrecked vehicles or "parts" cars you keep on site.

4. Cleaning up Spills

- Clean up small spills immediately using shop rags.



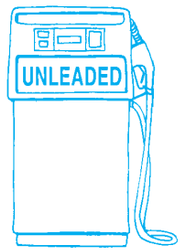
- Keep dry absorbent materials and/or a wet/dry vacuum cleaner on hand for mid-sized spills.
- Contain large spills immediately; block or shut off floor and parking lot drains and notify the authorities.
- Train employees to be familiar with hazardous spill response plans and emergency procedures.

5. Identify and Control Wastewater Discharges

- Ensure that shop sinks and floor drains are connected to the sanitary sewer. Check with the local sewer authority regarding permitting or other requirements.
- Post signs to prevent disposal of liquid wastes into sanitary drains.

6. Fueling Vehicles

- Clean-up minor spills, with a dry absorbent, rather than allowing them to evaporate. Dispose of the absorbent as a dry hazardous waste.
- Use a damp cloth and a damp mop to keep the area clean rather than a hose or a wet mop.

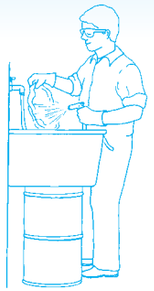


7. Removing and Storing Batteries

- Store batteries indoors, on an open rack.
- Return used batteries to a battery vendor.
- Contain cracked batteries to prevent hazardous spills.

8. Cleaning Parts

- Clean parts in a self-contained unit, solvent sink, or parts washer to prevent solvents and grease from entering a sewer or storm drain connection.



9. Metal Grinding and Finishing

- Catch metal filings in an enclosed unit or on a tarpaulin.
- Sweep filing area to prevent washing metals into floor drains.

10. Storing and Disposing of Waste

- Store recyclable and non-recyclable waste separately.
- Place liquid waste (hazardous or otherwise) within a bermed or secondary containment area.
- Cover outdoor storage areas to prevent contact with rain water.
- Collect used parts for delivery to a scrap metal dealer.

11. Selecting and Controlling Inventory

- Purchase recyclable or non-toxic materials.
- Select "closed-loop" suppliers and purchase supplies in bulk.



12. Outdoor Parking and Auto Maintenance

- Treat outdoor areas as an extension of your service bays or avoid using altogether.
- Sweep-up trash and dirt from outdoor parking and maintenance areas. Do not hose down areas. All non-storm water discharges are prohibited.
- Drain work areas to a sanitary drain rather than a storm drain. Contact the local sewer authority to determine if pretreatment is required.

13. Washing Vehicles, Cleaning Engines, and Other Steam Cleaning

- For occasional car exterior cleaning, minimize the water used and divert runoff to landscaped areas, keeping it out of the storm drain.
- Wash vehicles with biodegradable, phosphate-free detergent.
- Make sure no wastewater from engine or parts cleaning or steam cleaning is discharged where it may flow to a street, gutter, or storm drain.

14. Cleaning Work Areas

- Sweep or vacuum the shop floor frequently.
- Damp mop work areas - do not hose down work areas into the street or gutter.
- Do not pour mop water into the parking lot, street, gutter or storm drain.
- Use non-toxic cleaning products whenever possible.

Please remember:



Riverside County Stormwater Members

Flood Control District
(Lead Agency)
(951) 955-1250

County of Riverside
(951) 955-1000

City of Banning
(951) 922-3130

City of Beaumont
(951) 769-8520

City of Calimesa
(909) 795-9801

City of Canyon Lake
(951) 244-2955

Cathedral City
(760) 770-0349

City of Coachella
(760) 398-3502

City of Corona
(951) 736-2248

City of Desert Hot Springs
(760) 329-6411

City of Hemet
(951) 765-2300

City of Indian Wells
(760) 346-2489

City of San Jacinto
(951) 487-7330

City of Indio
(760) 391-4000

City of Lake Elsinore
(951) 674-3124

City of La Quinta
(760) 777-7000

City of Menifee
(951) 672-6777

City of Moreno Valley
(951) 413-3120

City of Murrieta
(951) 304-2489

City of Norco
(951) 735-3900

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City of Rancho Mirage
(760) 324-4511

City of Riverside
(951) 926-5311

City of Temecula
(951) 694-6444

City of Wildomar
(951) 677-7751

Coachella Valley Water District
(760) 398-2651

The Riverside County "Only Rain Down the Storm Drain" Pollution Prevention Program gratefully acknowledges San Bernardino County's Stormwater Program for their contribution to this brochure.

Stormwater Pollution

What you should know for...

Industrial & Commercial Facilities

Best Management Practices (BMPS) for:

- Industrial
- Commercial Facilities



3.2 INFILTRATION TRENCH

Type of BMP	LID - Infiltration
Treatment Mechanisms	Infiltration, Evapotranspiration (when vegetated), Evaporation
Maximum Drainage Area	10-acres
Other Names	None

Description

Infiltration trenches are shallow excavated areas that are filled with rock material to create a subsurface reservoir layer. The trench is sized to store the design capture volume, V_{BMP}, in the void space between the rocks. Over a period of 72 hours, the stormwater infiltrates through the bottom of the trench into the surrounding soil. Infiltration basins are highly effective in removing all targeted pollutants from stormwater runoff.

Figure 1 shows the components of an infiltration trench. The section shows the reservoir layer and observation well, which is used to monitor water depth. An overflow pipe that is used to bypass flows once the trench fills with stormwater is also shown.

Site Considerations

Location

The use of infiltration trenches may be restricted by concerns over groundwater contamination, soil permeability, and clogging at the site. See the applicable WQMP for any specific feasibility considerations for using infiltration BMPs. Where this BMP is being used, the soil beneath the basin must be thoroughly evaluated in a geotechnical report since the underlying soils are critical to the basin's long term performance. These basins may not be appropriate for the following site conditions:

- Industrial sites or locations where spills of toxic materials may occur.
- Sites with very low soil infiltration rates.
- Sites with high groundwater tables or excessively high soil infiltration rates, where pollutants can affect groundwater quality.
- Sites with unstabilized soil or construction activity upstream.
- On steeply sloping terrain.
- Infiltration trenches located in a fill condition should refer to Appendix A of this Handbook for details on special requirements/restrictions.

This BMP has a flat surface area, so it may be challenging to incorporate into steeply sloping terrain.

Setbacks

Always consult your geotechnical engineer for site specific recommendations regarding setbacks for infiltration trenches. Recommended setbacks are needed to protect buildings, walls, onsite or nearby wells, streams, and tanks. Setbacks should be considered early in the design process as they affect where infiltration facilities may be placed and how deep they are allowed to be. For instance, depth setbacks can dictate fairly shallow facilities that will have a larger footprint and, in some cases, may make an infiltration trench infeasible. In that instance, another BMP must be selected.

In addition to setbacks recommended by the geotechnical engineer, infiltration trenches must be set back:

- 10 feet from the historic high groundwater mark (measured vertically from the bottom of the trench, as shown in Figure 1)
- 5 feet from bedrock or impermeable surface layer (measured vertically from the bottom of the trench, as shown in Figure 1)
- From all mature tree drip lines as indicated in Figure 1
- 100 feet horizontally from wells, tanks or springs

Setbacks to walls and foundations must be included as part of the Geotechnical Report.

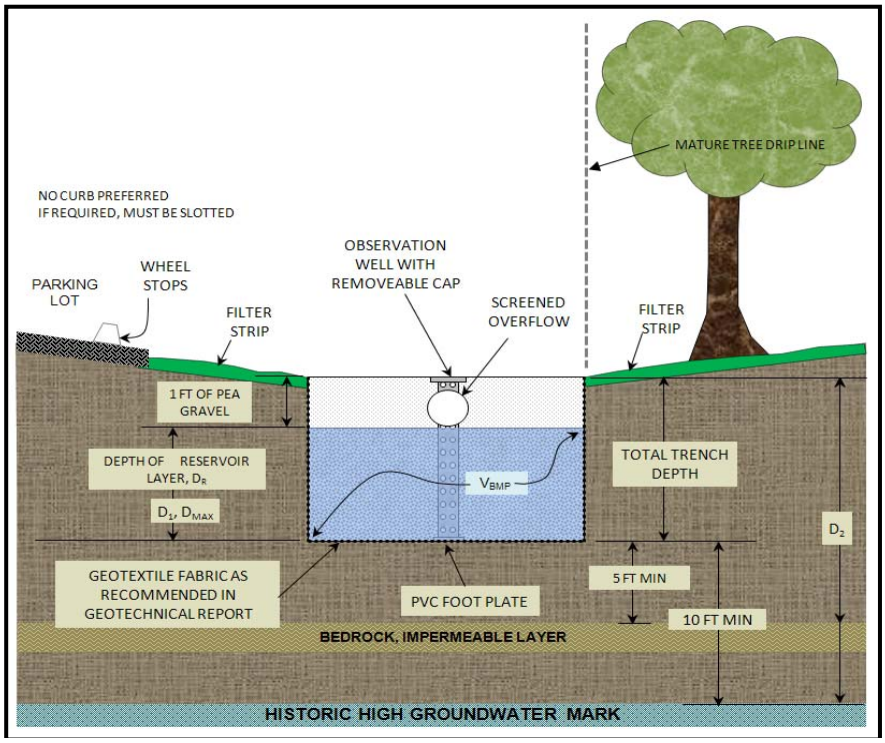


Figure 1 Section View of an Infiltration Trench

Sediment Control

Infiltration BMPs have the risk of becoming plugged over time. To prevent this, sediment must be removed before stormwater enters the trench. Both sheet and concentrated flow types have requirements that should be considered in the design of an infiltration trench.

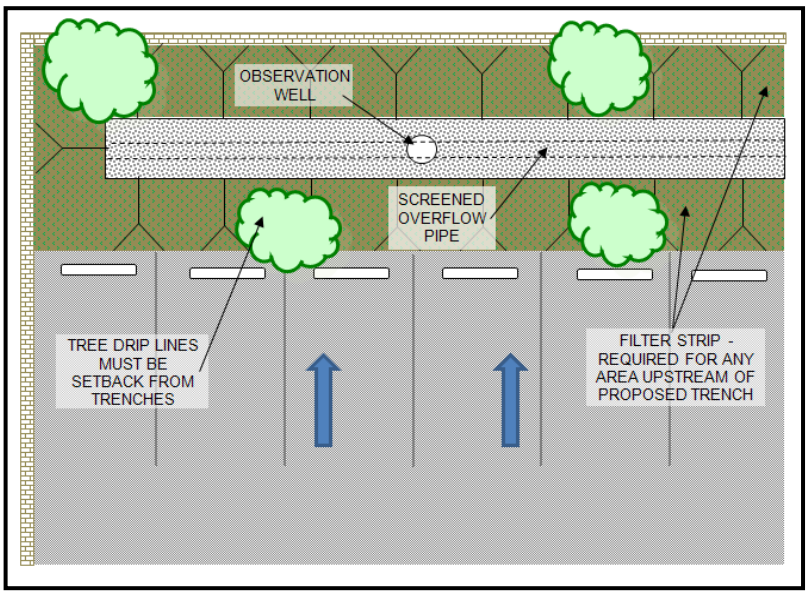


Figure 2 Plan View, Sheet Type Flows

When sheet type flows approach the trench along its length (as illustrated in Figure 2), a vegetated filter strip should be placed between the trench and the upstream drainage area. The filter strip must be a minimum of 5 feet wide and planted with grasses (preferably native) or covered with mulch.

Concentrated flows require a different approach. A 2004 Caltrans BMP Retrofit Report found that flow spreaders recommended in many water quality manuals are ineffective in distributing concentrated flows. As such, concentrated flows should either be directed toward a traditional vegetated swale (as shown on the right side of Figure 3) or to catch basin filters that can remove litter and sediment. Catch basins must discharge runoff as surface flow above the trench; they cannot outlet directly into the reservoir layer of the infiltration trench. If catch basins are used, the short and long term costs of the catch basin filters should be considered.

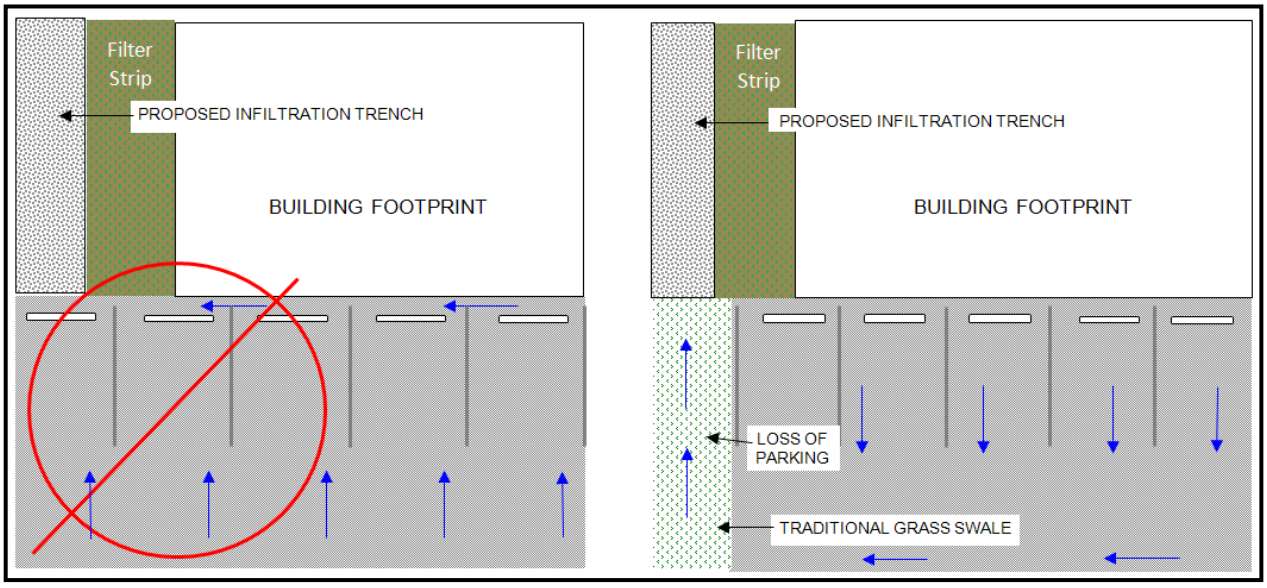


Figure 3 Plan View, Concentrated Flows

Additional Considerations

Class V Status

In certain circumstances, for example, if an infiltration trench is "deeper than its widest surface dimension," or includes an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground, it would probably be considered by the EPA to be a Class V injection well. Class V injection wells are subject to regulations and reporting requirements via the Underground Injection Control (UIC) Program. To ensure that infiltration trenches are not considered Class V wells, the design procedure in this manual requires that the trench not be deeper than it is wide.

Geotechnical Report

A geotechnical report must be included for all infiltration trenches. Appendix A of this Handbook entitled "Infiltration Testing Guidelines", details which types of infiltration tests are acceptable and how many tests or boring logs must be performed. A Geotechnical Report must be submitted in support of all infiltration trenches. Setbacks to walls and foundations must be included in the Geotechnical Report.

Observation Wells

One or more observation wells should be provided. The observation well consists of a vertical section of perforated pipe, 4 to 6 inches in diameter, installed flush with top of trench on a foot plate and have a locking, removable cap.

Overflow

An overflow route is needed to bypass storm flows larger than the V_{BMP} or in the event of clogging. Overflow systems must connect to an acceptable discharge point such as a downstream conveyance system.

Maintenance Access

Normal maintenance of an infiltration trench includes maintenance of the filter strip as well as debris and trash removal from the surface of the trench and filter strip. More substantial maintenance requiring vehicle access may be required every 5 to 10 years. Vehicular access along the length of the swale should be provided to all infiltration trenches. It is preferred that trenches be placed longitudinally along a street or adjacent to a parking lot area. These conditions have high visibility which makes it more likely that the trench will be maintained on a regular basis.

Inspection and Maintenance

Schedule	Inspection and Maintenance Activity
Every two weeks, or as often as necessary to maintain a pleasant appearance	- Maintain adjacent landscaped areas. Remove clippings from landscape maintenance activities. - Remove trash & debris
3 days after Major Storm Events	- Check for surface ponding. If ponding is only above the trench, remove, wash and replace pea gravel. May be needed every 5-10 years. - Check observation well for ponding. If the trench becomes plugged, remove rock materials. Provide a fresh infiltration surface by excavating an additional 2-4 inches of soil. Replace the rock materials.

Design and Sizing Criteria

Design Parameter	Design Criteria
Design Volume	V_{BMP}
Design Drawdown time	72 hrs
Maximum Tributary Drainage Area	10 acres
Maximum Trench Depth	8.0 ft
Width to Depth Ratio	Width must be greater than depth
Reservoir Rock Material	AASHTO #3 or 57 material or a clean, washed aggregate 1 to 3-in diameter equivalent
Filter Strip Width	Minimum of 5 feet in the direction of flow for all areas draining to trench
Filter Strip Slope	Max slope = 1%
Filter Strip Materials	Mulch or grasses (non-mowed variety preferred)
Historic High Groundwater Mark	10 ft or more below bottom of trench
Bedrock/Impermeable Layer Setback	5 ft or more below bottom of trench
Tree Setbacks	Mature tree drip line must not overhang the trench
Trench Lining Material	As recommended in Geotechnical Report

Infiltration Trench Design Procedure

1. Enter the area tributary to the trench, maximum drainage area is 10 acres.

2. Enter the Design Volume, $V_{BMP,}$ determined from Section 2.1 of this Handbook.

3. Enter the site infiltration rate, found in the geotechnical report.

4. Enter the factor of safety from Table 1 of Appendix A, Infiltration Testing.

5. Determine the maximum reservoir layer depth, $D_{MAX.}$ The value is obtained by taking the smaller of two depth equations but may never exceed 8 feet. The first depth, D_1 is related to the infiltration rate of the soil. The second depth, $D_{2,}$ is related to required setbacks to groundwater, bedrock/impermeable layer. These parameters are shown in Figure 1.

   Calculate D_1.

$$D_1 = \frac{I\left({}^{in}/_{hr}\right) \times 72\ (hrs)}{12\left({}^{in}/_{ft}\right) \times {}^{n}/_{100} \times FS}$$

   Where:

   I = site infiltration rate (in/hr), found in the geotechnical report
   FS = factor of safety, refer to Appendix A - Infiltration Testing
   n = porosity of the trench material, 40%

   Calculate D_2. Enter the depth to the seasonal high groundwater and bedrock/impermeable layer measured from the finished grade. The spreadsheet checks the minimum setbacks shown in Figure 1 and selects the smallest value. The equations are listed below for those doing hand calculations.

   Minimum Setbacks (includes 1 foot for pea gravel):

   = Depth to historic high groundwater mark - 11 feet
   = Depth to impermeable layer - 6 feet

   D_2 is the smaller of the two values.

   D_{MAX} is the smaller value of D_1 and $D_{2,}$ and must be less than or equal to 8 feet.

6. Enter the proposed reservoir layer depth, D_R. The value must be no greater than D_{MAX}.

7. Find the required surface area of the trench, A_S. Once D_R is entered, the spreadsheet will calculate the corresponding depth of water and the minimum surface area of the trench.

$$Design\ d_W = D_R \times \left({}^{n}/_{100}\right) \qquad A_S = \frac{V_{BMP}}{Design\ d_W}$$

Where:

A_S = minimum area required (ft^2)
V_{BMP} = BMP storage volume (ft^3)
Design d_W = Depth of water in reservoir layer (ft)

8. Enter the proposed design surface area; it must be greater than the minimum surface area.

9. Calculate the minimum trench width. This is to ensure that EPA's Class V Injection well status is not triggered. The total trench depth (shown in Figure 1) includes the upper foot where the overflow pipe is located. The minimum surface dimension is D_R + 1 foot.

Additional Items

The following items detailed in the preceding sections should also be addressed in the design.

- Sediment Control
- Geotechnical Report
- Observation well(s)
- Overflow

Reference Material

California Stormwater Quality Association. California Stormwater BMP Handbook New Development and Redevelopment. 2003.

County of Los Angeles Department of Public Works. Stormwater BMP Best Management Practice Design and Maintenance Manual for Publicly Maintained Storm Drain Systems. Los Angeles, CA, 2009.

LandSaver Stormwater Management System. Tech Sheet - Porosity of Structural Backfill. 2006.

United States Environmental Protection Agency. Office of Water, Washington D.C. Storm Water Technology Fact Sheet Vegetated Swales. 1999.

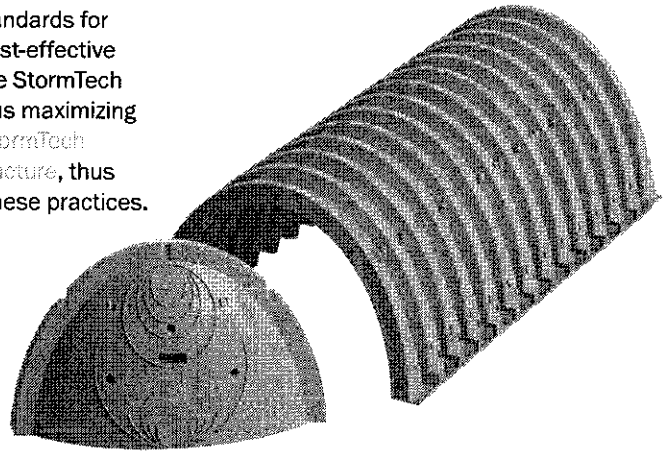
United States Environmental Protection Agency. Office of Water. Memorandum on Clarification on Which Stormwater Infiltration Practices/technologies Have the Potential to Be Regulated as "Class V" Wells by Underground Injection Control Program. By Linda Boornazian and Steve Heare. Washington D.C., 2008.

Ventura Countywide Stormwater Quality Management Program. Land Development Guidelines Biofilter Fact Sheet. Ventura, CA, 2001.

Ventura Countywide Stormwater Quality Management Program. Technical Guidance Manual for Stormwater Quality Control Measures. Ventura, CA, 2002.

STORMTECH SC-740 CHAMBER

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.



STORMTECH SC-740 CHAMBER
(not to scale)

Nominal Chamber Specifications

Size (L x W x H)
85.4" x 51" x 30"
2,170 mm x 1,295 mm x 762 mm

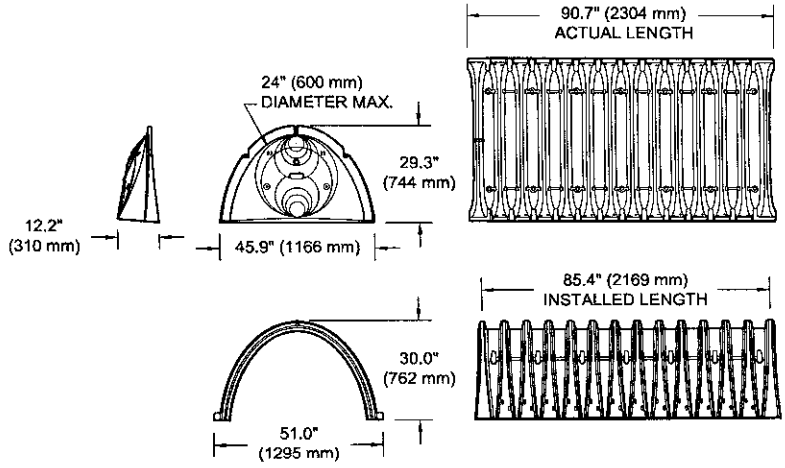
Chamber Storage
45.9 ft³ (1.30 m³)

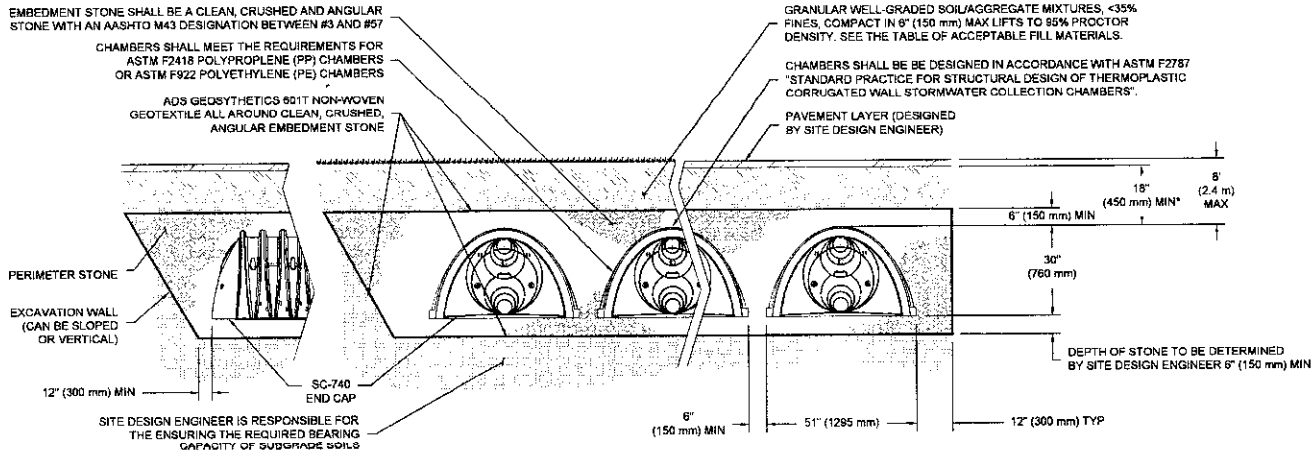
Min. Installed Storage*
74.9 ft³ (2.12 m³)

Weight
74.0 lbs (33.6 kg)

Shipping
30 chambers/pallet
60 end caps/pallet
12 pallets/truck

*Assumes 6" (150 mm) stone above, below and between chambers and 40% stone porosity.





*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24" (600 mm).

StormTech®

ADS®

SC-740 CUMULATIVE STORAGE VOLUMES PER CHAMBER

Assumes 40% Stone Porosity. Calculations are Based Upon a 6" (150 mm) Stone Base Under Chambers.

Depth of Water in System Inches (mm)		Incremental Chamber Storage ft³ (m³)	Total System Cumulative Storage ft³ (m³)
42 (1067)	↑	45.90 (1.300)	74.90 (2.121)
41 (1041)		45.90 (1.300)	73.77 (2.089)
40 (1016)	Stone	45.90 (1.300)	72.64 (2.057)
39 (991)	Cover	45.90 (1.300)	71.52 (2.025)
38 (965)		45.90 (1.300)	70.39 (1.993)
37 (940)	↓	45.90 (1.300)	69.26 (1.961)
36 (914)		45.90 (1.300)	68.14 (1.929)
35 (889)		45.85 (1.298)	66.98 (1.897)
34 (864)		45.69 (1.294)	65.75 (1.862)
33 (838)		45.41 (1.286)	64.46 (1.825)
32 (813)		44.81 (1.269)	62.97 (1.783)
31 (787)		44.01 (1.246)	61.36 (1.737)
30 (762)		43.06 (1.219)	59.66 (1.689)
29 (737)		41.98 (1.189)	57.89 (1.639)
28 (711)		40.80 (1.155)	56.05 (1.587)
27 (686)		39.54 (1.120)	54.17 (1.534)
26 (660)		38.18 (1.081)	52.23 (1.479)
25 (635)		36.74 (1.040)	50.23 (1.422)
24 (610)		35.22 (0.977)	48.19 (1.365)
23 (584)		33.64 (0.953)	46.11 (1.306)
22 (559)		31.99 (0.906)	44.00 (1.246)
21 (533)		30.29 (0.858)	1.85 (1.185)
20 (508)		28.54 (0.808)	39.67 (1.123)
19 (483)		26.74 (0.757)	37.47 (1.061)
18 (457)		24.89 (0.705)	35.23 (0.997)
17 (432)		23.00 (0.651)	32.96 (0.939)
16 (406)		21.06 (0.596)	30.68 (0.869)
15 (381)		19.09 (0.541)	28.36 (0.803)
14 (356)		17.08 (0.484)	26.03 (0.737)
13 (330)		15.04 (0.426)	23.68 (0.670)
12 (305)		12.97 (0.367)	21.31 (0.608)
11 (279)		10.87 (0.309)	18.92 (0.535)
10 (254)		8.74 (0.247)	16.51 (0.468)
9 (229)		6.58 (0.186)	14.09 (0.399)
8 (203)		4.41 (0.125)	11.66 (0.330)
7 (178)		2.21 (0.063)	9.21 (0.264)
6 (152)	↑	0 (0)	6.76 (0.191)
5 (127)		0 (0)	5.63 (0.160)
4 (102)	Stone	0 (0)	4.51 (0.128)
3 (76)	Foundation	0 (0)	3.38 (0.096)
2 (51)		0 (0)	2.25 (0.064)
1 (25)	↓	0 (0)	1.13 (0.032)

Note: Add 1.13 ft³ (0.032 m³) of storage for each additional inch (25 mm) of stone foundation.

STORAGE VOLUME PER CHAMBER FT³ (M³)

	Bare Chamber Storage ft³ (m³)	Chamber and Stone Foundation Depth in (mm)		
		6" (150)	12" (300)	18" (450)
SC-740 Chamber	45.9 (1.3)	74.9 (2.1)	81.7 (2.3)	88.4 (2.5)

Note: Assumes 6" (150 mm) stone above chambers, 6" (150 mm) row spacing and 40% stone porosity.

AMOUNT OF STONE PER CHAMBER

ENGLISH TONS (yds³)	Stone Foundation Depth		
	6"	12"	18"
SC-740	3.8 (2.8)	4.6 (3.3)	5.5 (3.9)
METRIC MT (yds³)	6" (150 mm)	12" (300 mm)	18" (450 mm)
SC-740	3,450 (2.1)	4,170 (2.5)	4,490 (3.0)

Note: Assumes 6" (150 mm) of stone above and between chambers.

VOLUME EXCAVATION PER CHAMBER YD³ (M³)

	Stone Foundation Depth		
	6" (150)	12" (300)	18" (450)
SC-740	5.5 (4.2)	6.2 (4.7)	6.8 (5.2)

Note: Assumes 6" (150 mm) of row separation and 18" (450 mm) of cover. The volume of excavation will vary as depth of cover increases.



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and utilize the StormTech Design Tool

For more information on the StormTech SC-740 Chamber and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710

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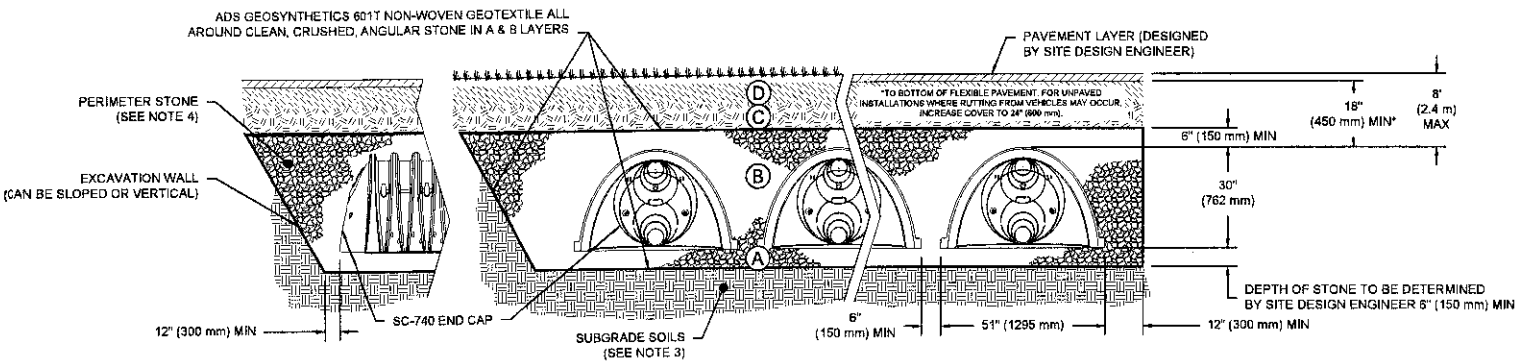
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ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-4, A-3 OR AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-740
STANDARD CROSS SECTION

DATE: 05-10-19 | DRAWN: KR | CHECKED: KR | PROJECT #:

DATE	DRWN	CHKD	DESCRIPTION

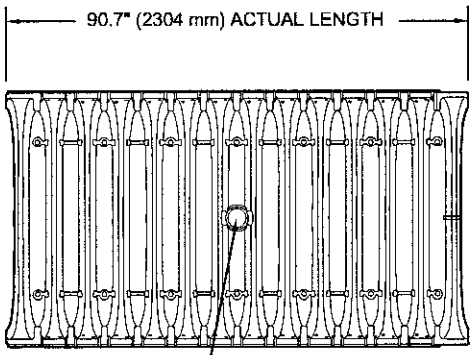
StormTech
70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

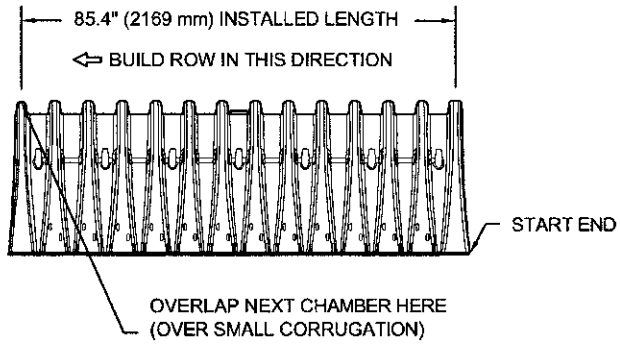
ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

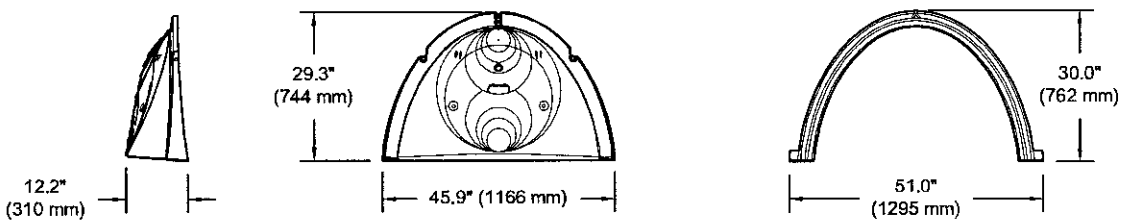
SC-740 TECHNICAL SPECIFICATION

NTS





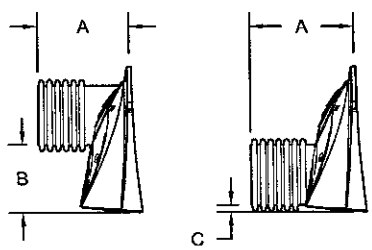
ACCEPTS 4" (100 mm) SCH 40 PVC PIPE FOR INSPECTION PORT. FOR PIPE SIZES LARGER THAN 4" (100 mm) UP TO 10" (250 mm) USE INSERTA TEE CONNECTION CENTERED ON A CHAMBER CREST CORRUGATION



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



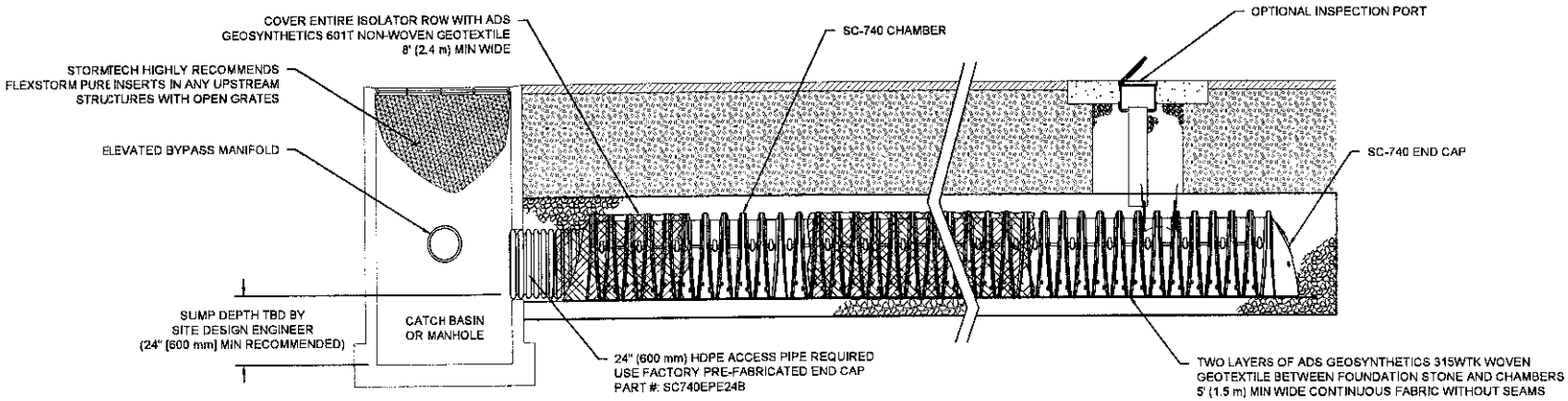
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE06B / SC740EPE06BPC			—	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	—
SC740EPE10B / SC740EPE10BPC			—	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	—
SC740EPE12B / SC740EPE12BPC			—	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	—
SC740EPE15B / SC740EPE15BPC			—	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	—
SC740EPE18B / SC740EPE18BPC			—	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	—	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



SC-740 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

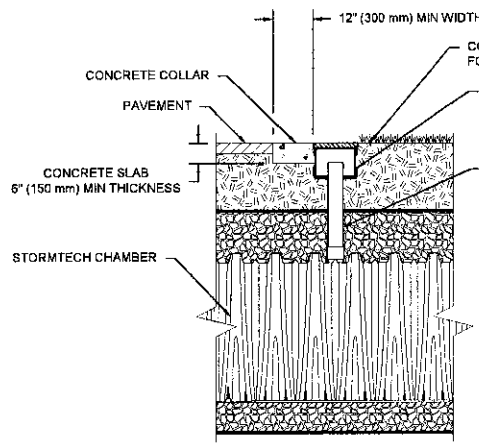
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

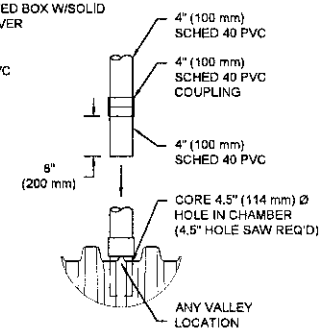
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).

4" PVC INSPECTION PORT DETAIL
NTS



CONNECTION DETAIL
NTS

SC-740
ISOLATOR ROW DETAILS

DATE: 05-10-19 | DRAWN: KR | CHECKED: KR | PROJECT #:

DATE	DRWN	CHKD	DESCRIPTION

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70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADS
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SC-310/SC-740/DC-780

StormTech Construction Guide

StormTech® An ADS company

REQUIRED MATERIALS AND EQUIPMENT LIST

- Acceptable fill materials per Table 1
- Woven and non-woven geotextiles
- StormTech solid end caps and pre-cored end caps
- StormTech chambers
- StormTech manifolds and fittings

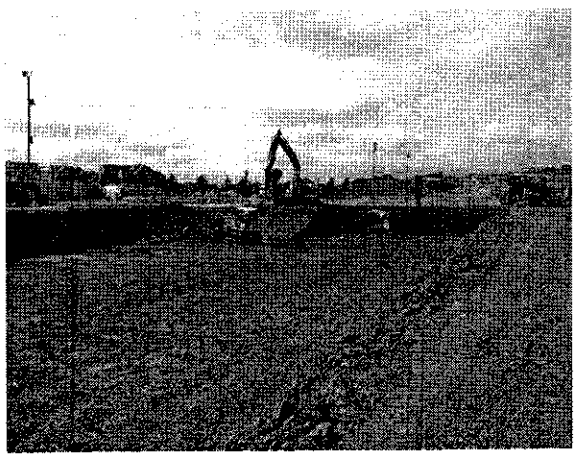
IMPORTANT NOTES:

A. This installation guide provides the minimum requirements for proper installation of chambers. Non-adherence to this guide may result in damage to chambers during installation. Replacement of damaged chambers during or after backfilling is costly and very time consuming. It is recommended that all installers are familiar with this guide, and that the contractor inspects the chambers for distortion, damage and joint integrity as work progresses.

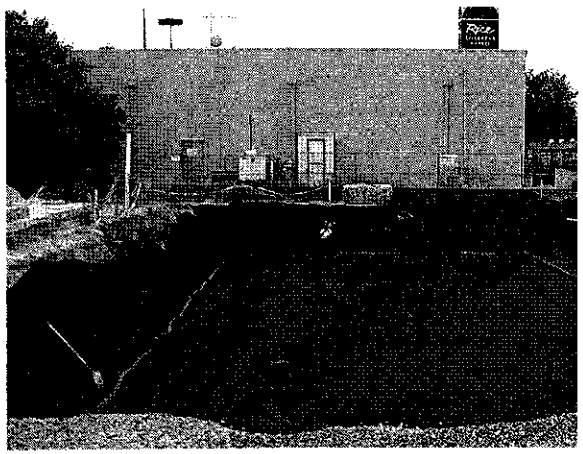
B. Use of a dozer to push embedment stone between the rows of chambers may cause damage to chambers and is not an acceptable backfill method. Any chambers damaged by using the "dump and push" method are not covered under the StormTech standard warranty.

C. Care should be taken in the handling of chambers and end caps. Avoid dropping, prying or excessive force on chambers during removal from pallet and initial placement.

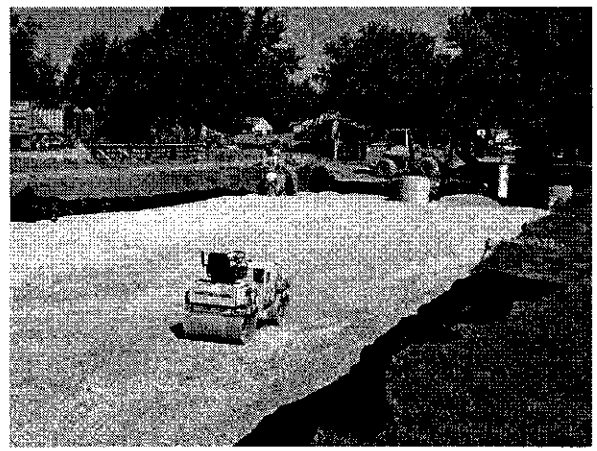
Requirements for System Installation



Excavate bed and prepare subgrade per engineer's plans.



Place non-woven geotextile over prepared soils and up excavation walls. Install underdrains if required.

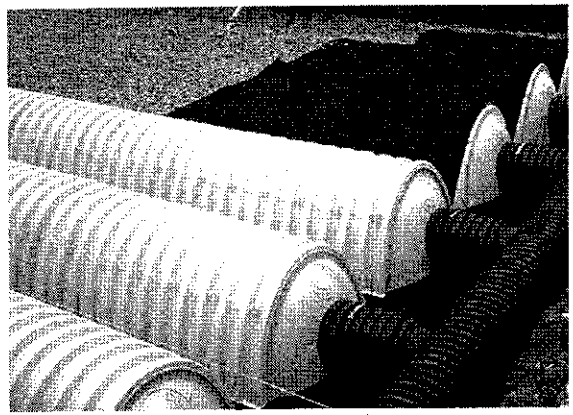


Place clean, crushed, angular stone foundation 6" (150 mm) min. Compact to achieve a flat surface.

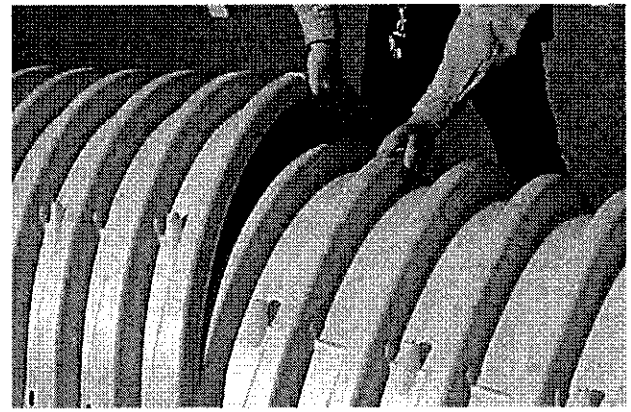
Manifold, Scour Fabric and Chamber Assembly



Install manifolds and lay out woven scour geotextile at inlet rows [min. 12.5 ft (3.8 m)] at each inlet end cap. Place a continuous piece (no seams, double layer) along entire length of Isolator® Row(s).

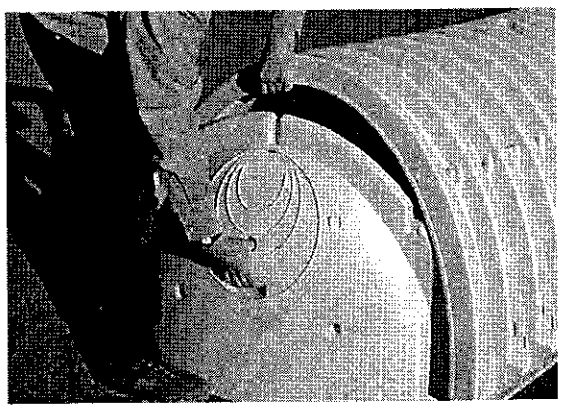


Align the first chamber and end cap of each row with inlet pipes. Contractor may choose to postpone stone placement around end chambers and leave ends of rows open for easy inspection of chambers during the backfill process.



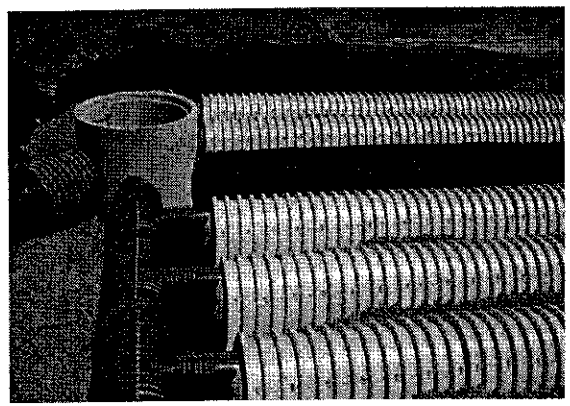
Continue installing chambers by overlapping chamber end corrugations. Chamber joints are labeled "Lower Joint – Overlap Here" and "Build this direction – Upper Joint" Be sure that the chamber placement does not exceed the reach of the construction equipment used to place the stone. Maintain minimum 6" (150 mm) spacing between rows.

Attaching the End Caps



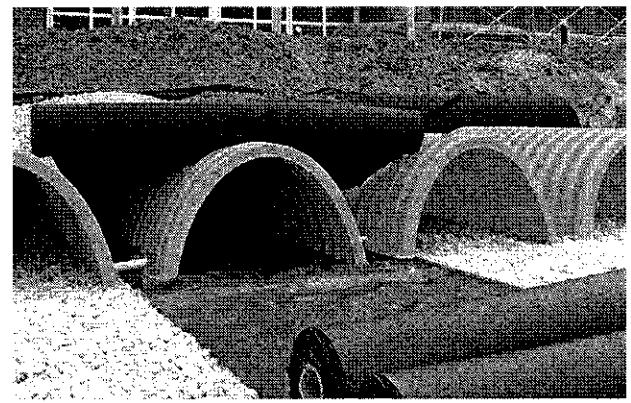
Lift the end of the chamber a few inches off the ground. With the curved face of the end cap facing outward, place the end cap into the chamber's end corrugation.

Prefabricated End Caps



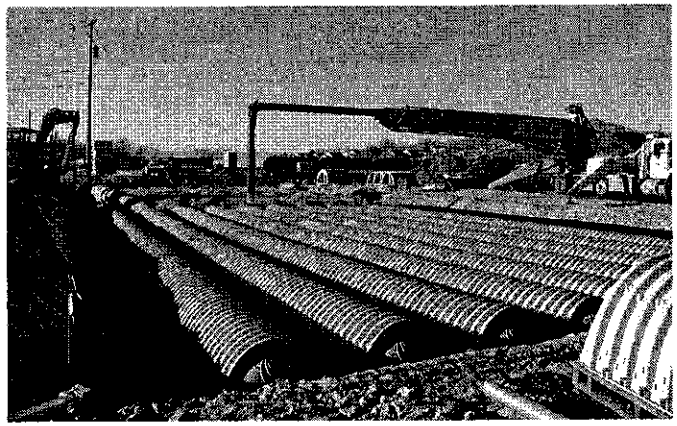
24" (600 mm) inlets are the maximum size that can fit into a SC-740/DC-780 end cap and must be prefabricated with a 24" (600 mm) pipe stub. SC-310 chambers with a 12" (300 mm) inlet pipe must use a prefabricated end cap with a 12" (300 mm) pipe stub.

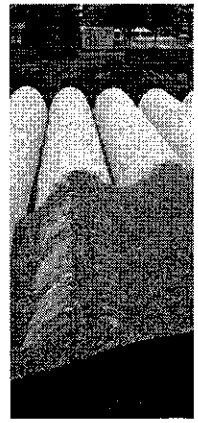
Isolator Row



Place two continuous layers of ADS Woven fabric between the foundation stone and the isolator row chambers, making sure the fabric lays flat and extends the entire width of the chamber feet. Drape a strip of ADS non-woven geotextile over the row of chambers (not required over DC-780). This is the same type of non-woven geotextile used as a separation layer around the angular stone of the StormTech system.

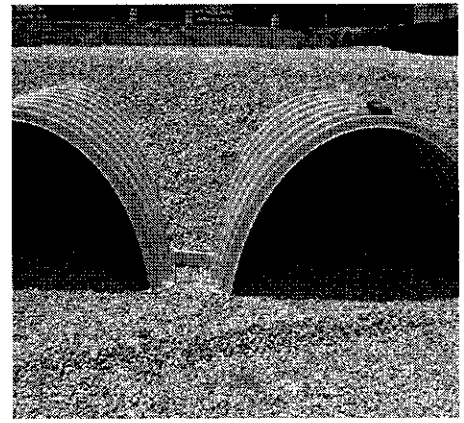
Initial Anchoring of Chambers – Embedment Stone





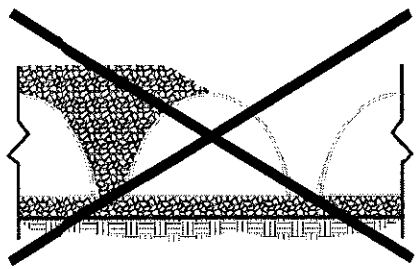
Initial embedment shall be spotted along the centerline of the chamber evenly anchoring the lower portion of the chamber. This is best accomplished with a stone conveyor or excavator reaching along the row.



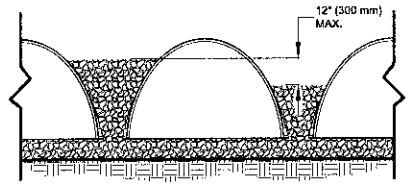


No equipment shall be operated on the bed at this stage of the installation. Excavators must be located off the bed. Dump trucks shall not dump stone directly on to the bed. Dozers or loaders are not allowed on the bed at this time.

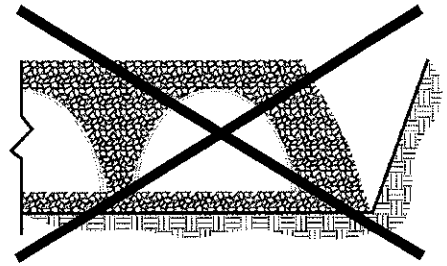
Backfill of Chambers – Embedment Stone



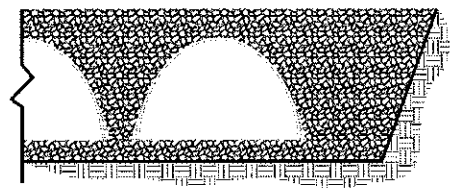
UNEVEN BACKFILL



EVEN BACKFILL



PERIMETER NOT BACKFILLED

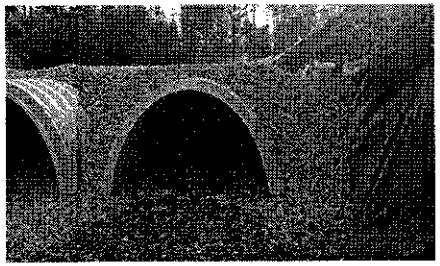


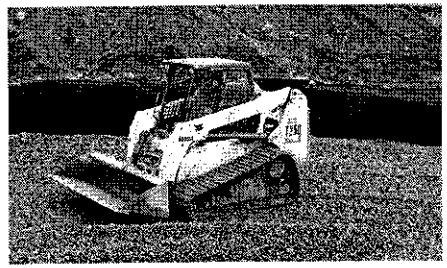
PERIMETER FULLY BACKFILLED

Backfill chambers evenly. Stone column height should never differ by more than 12" (300 mm) between adjacent chamber rows or between chamber rows and perimeter.

Perimeter stone must be brought up evenly with chamber rows. Perimeter must be fully backfilled, with stone extended horizontally to the excavation wall.

Backfill - Embedment Stone & Cover Stone

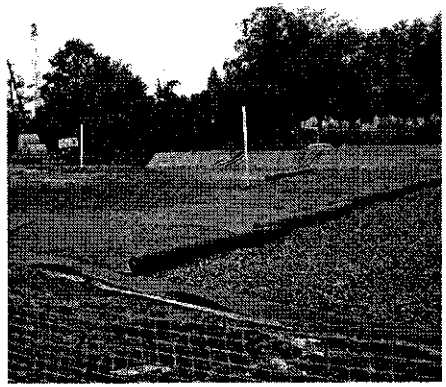


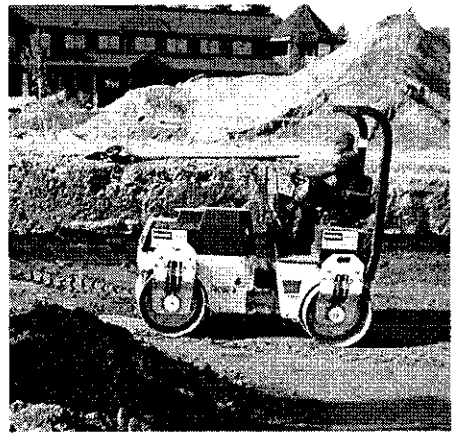


Continue evenly backfilling between rows and around perimeter until embedment stone reaches tops of chambers. Perimeter stone must extend horizontally to the excavation wall for both straight or sloped sidewalls. **Only after chambers have been backfilled to top of chamber and with a minimum 6" (150 mm) of cover stone on top of chambers can small dozers be used over the chambers for backfilling remaining cover stone.**

Small dozers and skid loaders may be used to finish grading stone backfill in accordance with ground pressure limits in Table 2. They must push material parallel to rows only. Never push perpendicular to rows. StormTech recommends that the contractor inspect chambers before placing final backfill. Any chambers damaged by construction shall be removed and replaced.

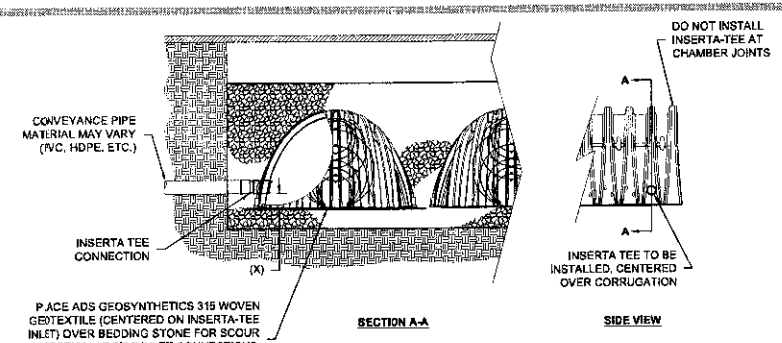
Final Backfill of Chambers - Fill Material





Install non-woven geotextile over stone. Geotextile must overlap 24" (600 mm) min. where edges meet. Compact each lift of backfill as specified in the site design engineer's drawings. Roller travel parallel with rows.

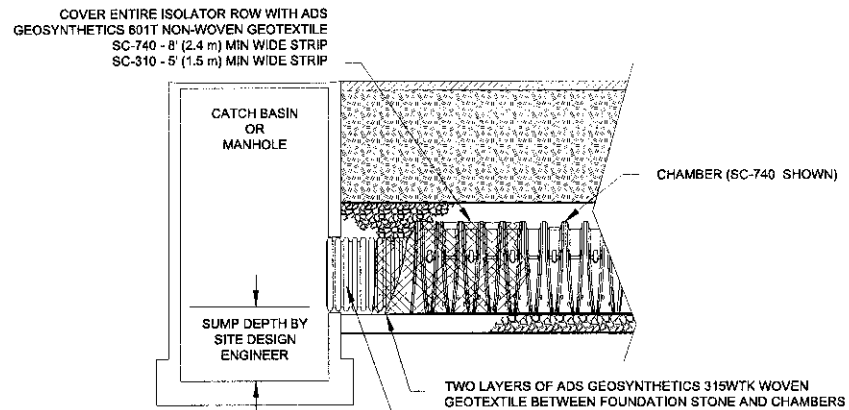
Inserta Tee Detail



CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	6" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

StormTech Isolator Row Detail



NOTE: NON-WOVEN GEOTEXTILE OVER DC-780 ISOLATOR ROW CHAMBERS IS NOT REQUIRED.

Table 1- Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation	Compaction / Density Requirement
(D) Final Fill: Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per site design engineer's plans. Paved installations may have stringent material and preparation requirements.
(C) Initial Fill: Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 18" (450 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/ aggregate mixtures, <35% fines or processed aggregate. Most pavement subbase materials can be used in lieu of this layer.	AASHTO M45 A-1, A-2-4, A-3 or AASHTO M431 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after min. 12" (300 mm) of material over the chambers is reached. Compact additional layers in 6" (150 mm) max. lifts to a min. 95% Proctor density for well-graded material and 95% relative density for processed aggregate materials. Roller gross vehicle weight not to exceed 12,000 lbs (53 kN). Dynamic force not to exceed 20,000 lbs (89 kN)
(B) Embedment Stone: Embedment Stone surrounding chambers from the foundation stone to the 'C' layer above.	Clean, crushed, angular stone	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	No compaction required.
(A) Foundation Stone: Foundation Stone below the chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone,	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	Place and compact in 6" (150 mm) lifts using two full coverages with a vibratory compactor.[2,3]

PLEASE NOTE:

1. The listed AASHTO designations are for gradations only. The stone must also be clean, crushed, angular. For example, a specification for #4 stone would state: "clean, crushed, angular no. 4 (AASHTO M43) stone".
2. StormTech compaction requirements are met for 'A' location materials when placed and compacted in 6" (150 mm) (max) lifts using two full coverages with a vibratory compactor.
3. Where infiltration surfaces may be compromised by compaction, for standard installations and standard design load conditions, a flat surface may be achieved by raking or dragging without compaction equipment. For special load designs, contact StormTech for compaction requirements.

Figure 1- Inspection Port Detail

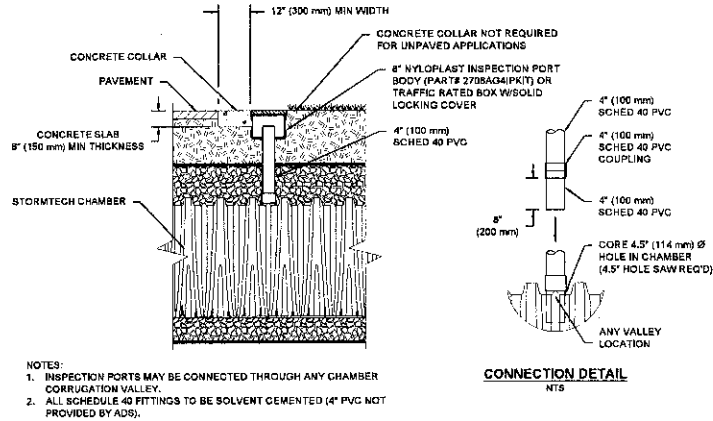
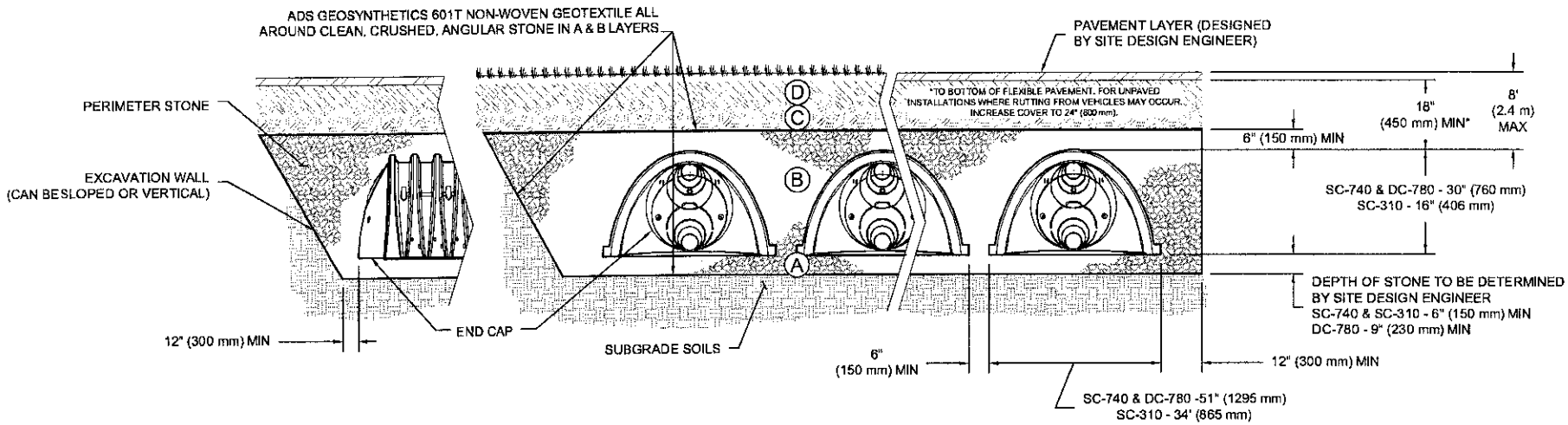


Figure 2 - Fill Material Locations



NOTES:

1. 36" (900 mm) of stabilized cover materials over the chambers is required for full dump truck travel and dumping.
2. During paving operations, dump truck axle loads on 18" (450 mm) of cover may be necessary. Precautions should be taken to avoid rutting of the road base layer, to ensure that compaction requirements have been met, and that a minimum of 18" (450 mm) of cover exists over the chambers. Contact StormTech for additional guidance on allowable axle loads during paving.
3. Ground pressure for track dozers is the vehicle operating weight divided by total ground contact area for both tracks. Excavators will exert higher ground pressures based on loaded bucket weight and boom extension.
4. Mini-excavators (< 8,000lbs/3,628 kg) can be used with at least 12" (300 mm) of stone over the chambers and are limited by the maximum ground pressures in Table 2 based on a full bucket at maximum boom extension.
5. Storage of materials such as construction materials, equipment, spoils, etc. should not be located over the StormTech system. The use of equipment over the StormTech system not covered in Table 2 (ex. soil mixing equipment, cranes, etc) is limited. Please contact StormTech for more information.
6. Allowable truck loads based on vehicle travel only. Excavators shall not operate on chamber beds until the total backfill reaches 3 feet (900 mm) over the entire bed.

Table 2 - Maximum Allowable Construction Vehicle Loads[5]

Material Location	Cover Depth over Chamber ft [mm]	Maximum Allowable Wheel Loads		Maximum Allowable Track Loads		Minimum Allowable Vehicle Loads
		Max Axle Load for Dump Trucks lbs [kN]	Max Wheel Load for Loaders lbs [kN]	Track Width in [mm]	Track Contact Pressure psi [kPa]	Max Operating Weight for Excavators lbs [kg]
Ⓓ Final Fill Material	36" [900] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	3420 [164] 2350 [113] 1850 [89] 1510 [72] 1310 [63]	38,000 [169]
Ⓒ Initial Fill Material	24" [600] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2480 [119] 1770 [85] 1430 [68] 1210 [58] 1070 [51]	20,000 [89]
	24" [600] Loose/Dumped	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2245 [107] 1625 [78] 1325 [63] 1135 [54] 1010 [48]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
	18" [450]	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2010 [96] 1480 [71] 1220 [58] 1060 [51] 950 [45]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
Ⓑ Embedment Stone	12" [300]	16,000 [71]	NOT ALLOWED	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	1540 [74] 1190 [57] 1010 [48] 910 [43] 840 [40]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
	6" [150]	8,000 [35]	NOT ALLOWED	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	1070 [51] 900 [43] 800 [38] 760 [36] 720 [34]	NOT ALLOWED

Table 3 - Placement Methods and Descriptions

Material Location	Placement Methods and Restrictions	Wheel Load Restrictions[6]	Track Load Restrictions	Roller Load Restrictions
		See Table 2 for Maximum Construction Loads		
Ⓓ Final Fill Material	A variety of placement methods may be used. All construction loads must not exceed the maximum limits in Table 2.	36" (900 mm) minimum cover required for dump trucks to dump over chambers.	Dozers to push parallel to rows until 36" (900mm) compacted cover is reached.[4]	Roller travel parallel to rows only until 36" (900 mm) compacted cover is reached.
Ⓒ Initial Fill Material	Excavator positioned off bed recommended. Small excavator allowed over chambers. Small dozer allowed.	Asphalt can be dumped into paver when compacted pavement subbase reaches 18" (450 mm) above top of chambers.	Small LGP track dozers & skid loaders allowed to grade cover stone with at least 6" (150 mm) stone under tracks at all times. Equipment must push parallel to rows at all times.	Use dynamic force of roller only after compacted fill depth reaches 12" (300 mm) over chambers. Roller travel parallel to chamber rows only.
Ⓑ Embedment Stone	No equipment allowed on bare chambers. Use excavator or stone conveyor positioned off bed or on foundation stone to evenly fill around all chambers to at least the top of chambers.	No wheel loads allowed. Material must be placed outside the limits of the chamber bed.	No tracked equipment is allowed on chambers until a min. 6" (150 mm) cover stone is in place.	No rollers allowed.
Ⓐ Foundation Stone	No StormTech restrictions. Contractor responsible for any conditions or requirements by others relative to subgrade bearing capacity, dewatering or protection of subgrade.			

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STANDARD LIMITED WARRANTY OF STORMTECH LLC ("STORMTECH"): PRODUCTS

(A) This Limited Warranty applies solely to the StormTech chambers and end plates manufactured by StormTech and sold to the original purchaser (the "Purchaser"). The chambers and end plates are collectively referred to as the "Products."

(B) The structural integrity of the Products, when installed strictly in accordance with StormTech's written installation instructions at the time of installation, are warranted to the Purchaser against defective materials and workmanship for one (1) year from the date of purchase. Should a defect appear in the Limited Warranty period, the Purchaser shall provide StormTech with written notice of the alleged defect at StormTech's corporate headquarters within ten (10) days of the discovery of the defect. The notice shall describe the alleged defect in reasonable detail. StormTech agrees to supply replacements for those Products determined by StormTech to be defective and covered by this Limited Warranty. The supply of replacement products is the sole remedy of the Purchaser for breaches of this Limited Warranty. StormTech's liability specifically excludes the cost of removal and/or installation of the Products.

(C) **THIS LIMITED WARRANTY IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.**

(D) This Limited Warranty only applies to the Products when the Products are installed in a single layer. **UNDER NO CIRCUMSTANCES, SHALL THE PRODUCTS BE INSTALLED IN A MULTI-LAYER CONFIGURATION.**

(E) No representative of StormTech has the authority to change this Limited Warranty in any manner or to extend this Limited Warranty. This Limited Warranty does not apply to any person other than to the Purchaser.

(F) Under no circumstances shall StormTech be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the Products, or the cost of other goods or services related to the purchase and installation of the Products. For this Limited Warranty to apply, the Products must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and StormTech's written installation instructions.

(G) **THE LIMITED WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES. STORMTECH SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS; LABOR AND MATERIALS; OVERHEAD COSTS; OR OTHER LOSS OR EXPENSE INCURRED BY THE PURCHASER OR ANY THIRD PARTY. SPECIFICALLY EXCLUDED FROM LIMITED WARRANTY COVERAGE ARE DAMAGE TO THE PRODUCTS ARISING FROM ORDINARY WEAR AND TEAR; ALTERATION, ACCIDENT, MISUSE, ABUSE OR NEGLECT; THE PRODUCTS BEING SUBJECTED TO VEHICLE TRAFFIC OR OTHER CONDITIONS WHICH ARE NOT PERMITTED BY STORMTECH'S WRITTEN SPECIFICATIONS OR INSTALLATION INSTRUCTIONS; FAILURE TO MAINTAIN THE MINIMUM GROUND COVERS SET FORTH IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT OF IMPROPER MATERIALS INTO THE PRODUCTS; FAILURE OF THE PRODUCTS DUE TO IMPROPER SITING OR IMPROPER SIZING; OR ANY OTHER EVENT NOT CAUSED BY STORMTECH. A PRODUCT ALSO IS EXCLUDED FROM LIMITED WARRANTY COVERAGE IF SUCH PRODUCT IS USED IN A PROJECT OR SYSTEM IN WHICH ANY GEOTEXTILE PRODUCTS OTHER THAN THOSE PROVIDED BY ADVANCED DRAINAGE SYSTEMS ARE USED. THIS LIMITED WARRANTY REPRESENTS STORMTECH'S SOLE LIABILITY TO THE PURCHASER FOR CLAIMS RELATED TO THE PRODUCTS, WHETHER THE CLAIM IS BASED UPON CONTRACT, TORT, OR OTHER LEGAL THEORY.**

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888.892.2694 fax 866.328.8401
www.stormtech.com

ADS GEOSYNTHETICS 0601T NONWOVEN GEOTEXTILE

Scope

This specification describes ADS Geosynthetics 6.0 oz (0601T) nonwoven geotextile.

Filter Fabric Requirements

ADS Geosynthetics 6.0 oz (0601T) is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. ADS Geosynthetics 6.0 oz (0601T) resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. ADS Geosynthetics 6.0 oz (0601T) conforms to the physical property values listed below:

Filter Fabric Properties

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
Weight (Typical)	ASTM D 5261	oz/yd^2 (g/m^2)	6.0 (203)
Grab Tensile	ASTM D 4632	lbs (kN)	160 (0.711)
Grab Elongation	ASTM D 4632	%	50
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	60 (0.267)
CBR Puncture Resistance	ASTM D 6241	lbs (kN)	410 (1.82)
Permittivity*	ASTM D 4491	sec^{-1}	1.5
Water Flow*	ASTM D 4491	gpm/ft^2 (l/min/m^2)	110 (4480)
AOS*	ASTM D 4751	US Sieve (mm)	70 (0.212)
UV Resistance	ASTM D 4355	%/hrs	70/500

PACKAGING	
Roll Dimensions (W x L) – ft	12.5 x 360 / 15x300
Square Yards Per Roll	500
Estimated Roll Weight – lbs	195

* At the time of manufacturing. Handling may change these properties.

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ADS GEOSYNTHETICS 315W WOVEN GEOTEXTILE

Scope

This specification describes ADS Geosynthetics 315W woven geotextile.

Filter Fabric Requirements

ADS Geosynthetics 315W is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position. ADS Geosynthetics 315W resists ultraviolet deterioration, rotting and biological degradation and is inert to commonly encountered soil chemicals. ADS Geosynthetics 315W conforms to the physical property values listed below:

Filter Fabric Properties

PROPERTY	TEST METHOD	ENGLISH M.A.R.V. (Minimum Average Roll Value)	METRIC M.A.R.V. (Minimum Average Roll Value)
Tensile Strength (Grab)	ASTM D-4632	315 lbs	1400 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	900 lbs	4005 N
Puncture	ASTM D-4833	150 lbs	667 N
Mullen Burst	ASTM D-3786	600 psi	4134 kPa
Trapezoidal Tear	ASTM D-4533	120 lbs	533 N
UV Resistance (at 500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Permittivity	ASTM D-4491	.05 sec^{-1}	.05 sec^{-1}
Water Flow Rate	ASTM D-4491	4 gpm/ft^2	163 $l/min/m^2$
Roll Sizes		12.5' x 360' 15.0' x 300' 17.5' x 258'	3.81 m x 109.8 m 4.57 m x 91.5 m 5.33 m x 78.6 m

*Maximum average roll value.

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Appendix G:
Noise Supporting Information

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Noise Appendix Executive Summary

PROJECT DESCRIPTION

Project Location and Setting

The proposed project is located in the City of Riverside, in Riverside County, California. The approximately 13.60-acre project site is located at 1151 Palmyrita Avenue, which is situated on the north side of Palmyrita Avenue and east of Iowa Avenue, corresponding to Assessor's Parcel Numbers (APNs) 247-170-030 and -039. The site is located within the *San Bernadino South, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

Project Description

The proposed project involves the construction of two new warehouse buildings (Building 1 and Building 2) under two scenarios: a 100 percent warehousing scenario (Scenario 1), and a 75 percent warehousing and 25 percent manufacturing scenario (Scenario 2).

Scenario 1

Under Scenario 1, Building 1 would total 139,667 square feet, and consist of a 132,167-square-foot warehouse, 4,000-square-foot first floor office, and 3,500-square-foot second floor office. Building 1 would include 125 standard parking stalls, four Americans with Disabilities Act (ADA) standard stalls, two ADA van stalls, one electric vehicle (EV) ADA standard stall, one EV ADA van stall, 16 EV standard stalls, three Clean Air/Vanpool/EV stalls, and 10 parallel parking stalls, for a total of 162 parking stalls.

Building 2 would total 126,091 square feet, and consist of a 116,691-square-foot warehouse, 5,000-square-foot first floor office, and 4,400-square-foot second floor office. Building 2 would include 126 standard parking stalls, four ADA standard stalls, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 155 stalls. The square footage of both buildings would total 265,758 square feet, with combined parking of 317 parking stalls. Scenario 1 would include 15 trailer parking stalls.

Scenario 2

Under Scenario 2, Building 1 would total 122,315 square feet, and consist of an 88,736-square-foot warehouse with 30,579 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 1 would include 168 standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and three Clean Air/Vanpool/EV stalls, for a total of 195 stalls.

Building 2 would total 122,127 square feet and consist of an 88,595-square-foot warehouse with 30,532 square feet of manufacturing uses and a 3,000-square-foot first floor office. Building 2 would include 159

standard parking stalls, four ADA, two ADA van stalls, one EV ADA standard stall, one EV ADA van stall, 16 EV standard stalls, and five Clean Air/Vanpool/EV stalls, for a total of 188 stalls. The square footage of both buildings would total 244,442 square feet, with combined parking of 383 parking stalls.

Circulation

Access to the site would be provided via two driveways, one 40-foot-wide driveway and one 30-foot-wide driveway along Palmyrita Avenue, and one 35-foot-wide driveway along Iowa Avenue.

The main freight truck entrance/exit to the proposed warehouse would be from Palmyrita Avenue; the main passenger vehicle entrance would be from Iowa Avenue. It is conservatively assumed the building would operate 24 hours a day, 7 days per week, with the exception of some holidays. The proposed project is anticipated to employ no more than 236 employees. The proposed project would include roadway and frontage improvements along Palmyrita Avenue and Iowa Avenue, as well as the construction of a raised median along Iowa Avenue. Improvements to Palmyrita Avenue and Iowa Avenue would total approximately 0.56 acre.

IMPACT ANALYSIS SUMMARY OF FINDINGS

The noise impact analysis contained in this document has been prepared by FirstCarbon Solutions (FCS) to evaluate short-term (construction) and long-term (operation) noise impacts of the proposed project to satisfy the City's noise impact analysis requirements. The following appendix materials include noise measurement data, construction noise modeling input assumptions and calculations for reasonable worst-case conditions, and truck loading/unloading calculations for reasonable worst-case conditions.

Land Use/Noise Compatibility

The noise measurement results provided in this appendix show The noise measurement results show that the project site's existing ambient noise environment (from all noise sources) experiences daytime hourly average noise levels up to 68.8 A-weighted decibel (dBA) equivalent continuous sound level (L_{eq}), and 24-hour average noise levels of up to 66.9 dBA Community Noise Equivalent Level (CNEL). These measured noise levels demonstrate that the existing ambient noise environment is below 70 dBA CNEL. The City considers these noise levels as normally acceptable for new industrial land use development. Therefore, the proposed project would not conflict with the City's Noise/Land Use Noise Compatibility Criteria and this impact would be less than significant.

Temporary Construction Noise Impacts

The construction noise level calculations provided in this appendix show that reasonable worst-case project construction activity would not exceed even the City's night noise performance threshold of 45 dBA L_{eq}. As such, they would not be considered a substantial temporary increase in ambient noise levels compared to noise levels existing without the project. Therefore, project construction noise levels would be less than significant and no mitigation would be required.

Traffic Noise Impacts

The analysis demonstrates that project trips would not result in a doubling of existing traffic volumes along adjacent roadway segments, and therefore project traffic would not result in a substantial increase of more than 3 dBA above existing noise levels. In fact, implementation of the proposed project would result in less than a 1 dBA increase in traffic noise levels on any of the local roadways in the project vicinity. Therefore, project-related traffic noise would not result in as substantial permanent increase in ambient noise levels above established standards and the impact would be less than significant and no mitigation would be required.

Stationary Source Noise Impacts

The proposed project would include new stationary noise sources such as mechanical ventilation equipment operation and truck loading activities. The analysis in this document demonstrates that noise generated by proposed mechanical ventilation equipment would attenuate to less than 29 dBA L_{eq} at the nearest sensitive receptor. These noise levels would not exceed even the City's night noise performance threshold of 45 dBA L_{eq}. Therefore, proposed project mechanical equipment operations would not result in as substantial permanent increase in ambient noise levels above established standards and the impact would be less than significant and no mitigation would be required.

As shown in the modeling results provide in this appendix, reasonable worst-case truck loading/unloading activity would attenuate to below 39 dBA L_{max} and below 35 dBA L_{eq} at the nearest noise-sensitive receptor. These noise levels would not exceed even the City's night noise performance threshold of 45 dBA L_{eq}. Therefore, project truck loading/unloading activities would not result in as substantial permanent increase in ambient noise levels above established standards and the impact would be less than significant and no mitigation would be required.

Groundborne Vibration Impacts

The analysis in this document demonstrates that construction-related groundborne vibration levels would range up to 0.12 peak particle velocity (PPV) from operation of the types of equipment that would produce the highest vibration levels. This is below the established construction vibration impact criteria of 0.3 PPV for the closest structure, a building of engineered concrete and masonry construction. Therefore, proposed project construction activities would not generate groundborne vibration levels in excess of established impact criteria, and impacts would be considered less than significant as measured at the nearest receiving structures in the project vicinity. Project construction-related groundborne vibration impacts would be less than significant and no mitigation would be required.

Furthermore, the analysis demonstrates that implementation of the proposed project would not include any permanent sources that would generate groundborne vibration levels that could be noticeable without instruments at the lot line of the project site. Therefore, implementation of the proposed project's groundborne vibration or noise impacts would be less than significant and no mitigation would be required.

CONCLUSIONS

Based on the analysis contained in this document, implementation of the proposed project would not result in a substantial temporary or permanent increase in ambient noise levels in excess of established standards and this impact would be less than significant and no mitigation would be required. Furthermore, implementation of the proposed project's groundborne vibration or noise impacts would be less than significant and no mitigation would be required. And finally, implementation of the proposed project would not expose people residing or working in the project area to excessive noise levels related to airport activity and there would be no impact and no mitigation would be required.

Measurement Report

Report Summary

Meter's File Name	LxT_Data.490	Computer's File Name	20220923_161313.ldbin
Meter	LxT2		
Firmware	2.206		
User		Location	
Description			
Note			
Start Time	17-08-2022 12:40:24	Duration	22:43:36.1
End Time	18-08-2022 11:24:00	Run Time	22:43:36.1
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	61.6 dB		
LAE	110.7 dB	SEA	--- dB
EA	13.2 mPa²h		
EA8	4.6 mPa²h		
EA40	23.2 mPa²h		
LAS_{peak}	106.8 dB	17-08-2022 21:57:57	
LAS_{max}	94.3 dB	18-08-2022 10:27:50	
LAS_{min}	41.7 dB	17-08-2022 23:55:07	
LA_{eq}	61.6 dB		
LC_{eq}	71.3 dB	LC_{eq} - LA_{eq}	9.6 dB
LAI_{eq}	64.0 dB	LAI_{eq} - LA_{eq}	2.4 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	4	0:00:12.5
LAS > 115.0 dB	0	0:00:00.0
LASpeak > 135.0 dB	0	0:00:00.0
LASpeak > 137.0 dB	0	0:00:00.0
LASpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
66.5 dB	62.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
66.9 dB	62.8 dB	61.5 dB	59.6 dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	61.6 dB		--- dB		--- dB	
$LS_{(max)}$	94.3 dB	18-08-2022 10:27:50	--- dB		--- dB	
$LS_{(min)}$	41.7 dB	17-08-2022 23:55:07	--- dB		--- dB	
$L_{Peak(max)}$	106.8 dB	17-08-2022 21:57:57	--- dB		--- dB	

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	65.9 dB
LAS 10.0	63.7 dB
LAS 33.3	59.4 dB
LAS 50.0	56.7 dB
LAS 66.6	53.9 dB
LAS 90.0	48.3 dB

Project Number: 4996.0017 Sheet 4 of 4
Project Name: Palyrita Avenue Warehouse Project
Test Personnel: Spencer Churchill

NOISE MEASUREMENT SURVEY

Site Number: 4 Date: 17 August 2022 - 18 August 2022 Time: From 12:40:24 To 11:24:00 (next day)

Site Location: Along Palmyrita Avenue on the inside of the chain link fence. Adjacent to a large tree and as far as possible from the air conditioning unit mentioned in Short Term Test 1.

Primary Noise Sources: Traffic along Palmyrita Avenue

Measurement Results

	dBA
L_{eq}	61.6 db
L_{max}	94.3 db
L_{min}	41.7 db
L_{peak}	106.8 db
L_5	65.9 db
L_{10}	63.7 db
L_{50}	56.7 db
L_{90}	49.3 db
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	n/a	

Comments: lxT_Data.490. Unit shut off prematurely, however measurement lasted 22:43:46 hours in total.

Equipment: Larson Davis SLM Measured Difference: _____dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast■ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
	5 mph	91 F	22%	UV 8
Comments:				

Measurement Report

Report Summary

Meter's File Name	LxT_Data.486	Computer's File Name	20220923_161212.ldbin
Meter	LxT2		
Firmware	2.206		
User		Location	
Description			
Note			
Start Time	17-08-2022 11:08:51	Duration	0:15:03.2
End Time	17-08-2022 11:23:54	Run Time	0:15:03.2
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	65.2 dB		
LAE	94.8 dB	SEA	--- dB
EA	334.5 µPa²h		
EA8	10.7 mPa²h		
EA40	53.3 mPa²h		
LAS_{peak}	92.8 dB	17-08-2022 11:23:05	
LAS_{max}	77.4 dB	17-08-2022 11:12:40	
LAS_{min}	47.9 dB	17-08-2022 11:20:22	
LA_{eq}	65.2 dB		
LC_{eq}	72.1 dB	LC_{eq} - LA_{eq}	6.9 dB
LAI_{eq}	66.4 dB	LAI_{eq} - LA_{eq}	1.1 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpeak > 135.0 dB	0	0:00:00.0
LASpeak > 137.0 dB	0	0:00:00.0
LASpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
65.2 dB	65.2 dB	0.0 dB

LDEN	LDay	LEve	LNight
65.2 dB	65.2 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	65.2 dB		--- dB		--- dB	
$Ls_{(max)}$	77.4 dB	17-08-2022 11:12:40	--- dB		--- dB	
$LS_{(min)}$	47.9 dB	17-08-2022 11:20:22	--- dB		--- dB	
$L_{Peak(max)}$	92.8 dB	17-08-2022 11:23:05	--- dB		--- dB	

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	71.4 dB
LAS 10.0	69.5 dB
LAS 33.3	64.4 dB
LAS 50.0	61.0 dB
LAS 66.6	56.7 dB
LAS 90.0	50.6 dB

Project Number: 4996.0017 Sheet 1 of 4
Project Name: Palyrita Avenue Warehouse Project
Test Personnel: Spencer Churchill

NOISE MEASUREMENT SURVEY

Site Number: 1 Date: 17 August 2022 Time: From 11:08:51 To 11:23:54

Site Location: Along Palmyrita Avenue on the sidewalk adjacent to the project site. Located in the middle of the southern edge of the project site on the outside of the surrounding chain-link fence.

Primary Noise Sources: Traffic along Palmyrita Ave, air conditioning unit on the eastern edge of the warehouse.

Measurement Results

	dBA
L_{eq}	65.2 db
L_{max}	77.4 db
L_{min}	49.7 db
L_{peak}	64.3 db
L_5	71.4 db
L_{10}	69.5 db
L_{50}	61.0 db
L_{90}	50.6 db
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	n/a	

Comments: IxT_Data.486

Equipment: Larson Davis SLM Measured Difference: _____dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast■ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
	5 mph	91 F	22%	UV 8
Comments:				

Measurement Report

Report Summary

Meter's File Name	LxT_Data.487	Computer's File Name	20220923_161238.ldbin
Meter	LxT2		
Firmware	2.206		
User		Location	
Description			
Note			
Start Time	17-08-2022 11:30:36	Duration	0:15:00.7
End Time	17-08-2022 11:45:36	Run Time	0:15:00.7
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	68.8 dB		
LAE	98.3 dB	SEA	--- dB
EA	759.4 µPa²h		
EA8	24.3 mPa²h		
EA40	121.4 mPa²h		
LAS_{peak}	101.8 dB	17-08-2022 11:41:01	
LAS_{max}	81.1 dB	17-08-2022 11:41:01	
LAS_{min}	49.9 dB	17-08-2022 11:45:31	
LA_{eq}	68.8 dB		
LC_{eq}	77.9 dB	LC_{eq} - LA_{eq}	9.1 dB
LAI_{eq}	70.0 dB	LAI_{eq} - LA_{eq}	1.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpeak > 135.0 dB	0	0:00:00.0
LASpeak > 137.0 dB	0	0:00:00.0
LASpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
68.8 dB	68.8 dB	0.0 dB

LDEN	LDay	LEve	LNight
68.8 dB	68.8 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	68.8 dB		--- dB		--- dB	
$LS_{(max)}$	81.1 dB	17-08-2022 11:41:01	--- dB		--- dB	
$LS_{(min)}$	49.9 dB	17-08-2022 11:45:31	--- dB		--- dB	
$L_{Peak(max)}$	101.8 dB	17-08-2022 11:41:01	--- dB		--- dB	

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	74.5 dB
LAS 10.0	72.2 dB
LAS 33.3	67.7 dB
LAS 50.0	65.0 dB
LAS 66.6	62.0 dB
LAS 90.0	57.1 dB

Project Number: 4996.0017 Sheet 2 of 4
Project Name: Palyrita Avenue Warehouse Project
Test Personnel: Spencer Churchill

NOISE MEASUREMENT SURVEY

Site Number: 2 Date: 17 August 2022 Time: From 11:30:36 To 11:45:36

Site Location: Along Iowa Avenue on the sidewalk adjacent to the project site. Located in the middle of the western edge of the project site on the sidewalk.

Primary Noise Sources: Traffic along Iowa Avenue.

Measurement Results

	dBA
L_{eq}	68.8 db
L_{max}	81.1 db
L_{min}	49.9 db
L_{peak}	101.8 db
L_5	75.5 db
L_{10}	72.2 db
L_{50}	65.0 db
L_{90}	57.1 db
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	n/a	

Comments: lxT_Data.487

Equipment: Larson Davis SLM Measured Difference: _____dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast■ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
	5 mph	91 F	22%	UV 8
Comments:				

Measurement Report

Report Summary

Meter's File Name	LxT_Data.489	Computer's File Name	20220923_161255.ldbin
Meter	LxT2		
Firmware	2.206		
User		Location	
Description			
Note			
Start Time	17-08-2022 12:04:04	Duration	0:15:00.8
End Time	17-08-2022 12:19:05	Run Time	0:15:00.8
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	56.6 dB		
LAE	86.1 dB	SEA	--- dB
EA	45.8 µPa²h		
EA8	1.5 mPa²h		
EA40	7.3 mPa²h		
LAS_{peak}	104.6 dB	17-08-2022 12:04:14	
LAS_{max}	69.2 dB	17-08-2022 12:04:14	
LAS_{min}	54.5 dB	17-08-2022 12:05:39	
LA_{eq}	56.6 dB		
LC_{eq}	70.4 dB	LC_{eq} - LA_{eq}	13.8 dB
LAI_{eq}	59.2 dB	LAI_{eq} - LA_{eq}	2.6 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpeak > 135.0 dB	0	0:00:00.0
LASpeak > 137.0 dB	0	0:00:00.0
LASpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
56.6 dB	56.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
56.6 dB	56.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	56.6 dB		--- dB		--- dB	
$LS_{(max)}$	69.2 dB	17-08-2022 12:04:14	--- dB		--- dB	
$LS_{(min)}$	54.5 dB	17-08-2022 12:05:39	--- dB		--- dB	
$L_{Peak(max)}$	104.6 dB	17-08-2022 12:04:14	--- dB		--- dB	

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	58.4 dB
LAS 10.0	57.5 dB
LAS 33.3	56.5 dB
LAS 50.0	56.1 dB
LAS 66.6	55.8 dB
LAS 90.0	55.4 dB

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Project Number: 4996.0017 Sheet 3 of 4
Project Name: Palyrita Avenue Warehouse Project
Test Personnel: Spencer Churchill

NOISE MEASUREMENT SURVEY

Site Number: 3 Date: 17 August 2022 Time: From 12:04:04 To 12:19:05

Site Location: Within the project side on the eastern edge. Along the chain link fence abutting the train tracks. Next to an operational warehouse

Primary Noise Sources: Air conditioning units from the warehouse, traffic along Palmyrita, distant train whistle and helicopter

Measurement Results

	dBA
L_{eq}	56.6 db
L_{max}	69.2 db
L_{min}	54.5 db
L_{peak}	104.6 db
L_5	58.4 db
L_{10}	57.5 db
L_{50}	56.1 db
L_{90}	55.44 db
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	n/a	

Comments: IxT_Data.489

Equipment: Larson Davis SLM Measured Difference: _____dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast■ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
	7 mph	94 F	22%	UV 8
Comments:				

Mobile Construction Activity Noise Calculation

Receptor:	Receiving residential property line	Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 50 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Backhoe	80	1	40	900	1	3	51.9	35.4	3437.498173
2	Front End Loader	80	1	40	900	1	3	51.9	35.4	3437.498173
3	Scraper	85	1	40	925	1	3	56.7	40.0	10012.5525
4	Rubber Tired Dozer	85	1	40	925	1	3	56.7	40.0	10012.5525
5	Front End Loader	80	1	40	925	1	3	51.7	35.0	3166.247108
6										
7										
8										
9										
10										
							Lmax[4]	57	Leq	45

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Loading/Unloading Noise Calculation

Receptor:	Receiving residential property line	Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 50 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Loading/Unloading Noise Calculation	70	2	25	1190	0.5	3	39.5	29.6	906.8336177
2	Loading/Unloading Noise Calculation	70	2	25	1214	0.5	3	39.3	29.4	862.6771568
3	Loading/Unloading Noise Calculation	70	2	25	1238	0.5	3	39.1	29.1	821.4732076
4	Loading/Unloading Noise Calculation	70	2	25	1262	0.5	3	39.0	28.9	782.9727147
5										
6										
7										
8										
9										
10										
							Lmax[4]	39	Leq	35

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures (6-foot high soundwall along western property line)

[4] Calculated Lmax is the Loudest value.

Appendix H:
Transportation Supporting Information

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H.1 - Trip Generation Assessment

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APPROVED
Vital Patel
02/07/2023

CITY OF RIVERSIDE
City of Arts & Innovation

Public Works Department

Traffic Analysis Scoping Form

This scoping form shall be submitted to the City of Riverside Traffic Engineering Division

Project Identification:

Case Number:	PR-2022-001409
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Palmyrita Warehouse Project
Project Address:	NEC of Iowa and Palmyrita - 1151 Palmyrita Avenue
Project Opening Year:	
Project Description:	Scenario 1: 265,758 SF of warehousing use
	Scenario 2: 177,332 SF of warehousing use, 61,111 SF of manufacturing use totaling 244,442 SF & replacing existing manufacturing use of 99,165 SF

	Consultant:	**Developer:**
Name:	Urban Crossroads - Charlene So	Dedeaux Properties - Benjamin Horning
Address:	1133 Camelback St, #8329	100 Wilshire Bl., Suite 250
	Newport Beach, CA 92658	Santa Monica, CA 90401
Telephone:	949-861-0177	
Fax/Email:	cso@urbanxroads.com	

Scoping & Study Fees:

Fees to be made payable to "City of Riverside" and delivered to Land Development. City Hall 3rd Floor, 3900 Main Street, Riverside, CA 92522

1) Scoping Agreement Fee (For all projects not screened from analysis): **$271.00**

2) TIA Review (For projects with both LOS & VMT analysis of any scale, or standalone LOS analyses with over 100 vehicle trips per hour): **$2671.02**

3) TIA Review (For standalone VMT analysis, or standalone LOS analyses with under 100 vehicle trips per hour): **$1288.20**

Trip Generation Information:

Trip Generation Data Source: ITE, Trip Generation Manual (11th Edition, 2021)

Current General Plan Land Use: B/OP (Business Park/Office)

Proposed General Plan Land Use: B/OP (Business Park/Office)

Current Zoning: BMP

Proposed Zoning: BMP

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				See attached memo - 2 scenarios		
PM Trips						

Trip Internalization: ☐ Yes ☒ No (_____% Trip Discount)

Pass-By Allowance: ☐ Yes ☒ No (_____% Trip Discount)

Potential Screening Checks

Is your project screened from specific analyses in accordance with City Guidelines?

Is the project screened from LOS assessment? ☒ Yes ☐ No

LOS screening justification (see Page 6 of the guidelines): Project generates fewer than 100 net new peak hour trips (for both scenarios)

Is the project screened from VMT assessment? ☐ Yes ☐ No

VMT screening justification (see Pages 23-25 of the guidelines): Scenario 1 is fewer than 110 net new daily trips (and therefore screens out from VMT), however Scenario 2 does not.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
N/A %	%	%	%

- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach legible site plan
- Note other specific items to be addressed:
  - Site access
  - On-site circulation
  - Parking
  - Consistency with Plans supporting Bikes/Peds/Transit
  - Other _____
- Date of Traffic Counts N/A
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model For Scenario 2 only, RIVCOM
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Specific Issues to be addressed in the Study (in addition to the standard analysis described in the Guidelines) (To be filled out by the Public Works Traffic Engineering Division)

1. Eastern most dwy along Palmyrita Avenue shall be right-in/right-out only. Project shall install appropriate signage for right-in/out at the entry way to roadways to implement right-in/out movements.Please label the driveway accordingly on the site plan.

2. Access from the driveway located at Iowa Avenue should be right-in/out only. Project shall install appropriate signage for right-in/out at the entry way to roadways to implement right-in/out movements.Project shall construct a raised median island on Iowa Av. to restrict access to right-in/right-out access only.

3. Project will be conditioned to improve the signal by upgrading the pedestrian push buttons to audible push buttons and installing a battery backup system at Palmyrita & Iowa.

3900 Main Street, Riverside, CA 92522 | Phone: (951) 826-5366| **RiversideCA.gov**

February 7, 2023

Ms. Angela Wolfe
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602

PALMYRITA WAREHOUSE PROJECT TRIP GENERATION ASSESSMENT

Ms. Angela Wolfe,

Urban Crossroads, Inc. is pleased to submit this Trip Generation Assessment for the proposed Palmyrita Warehouse Project (referred to as **Project**) which is located in the City of Riverside. The Project site is bounded to the east by railroad tracks; Palmyrita Avenue to the south; Iowa Avenue to the west; and railroad tracks, large warehouse, and a vacant lot to the north. It should be noted that this trip generation assessment has been prepared in accordance with the City's Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) (**City Guidelines**).

PROPOSED PROJECT

The Project will be evaluated assuming two potential land use scenarios:

- Scenario 1: 139,667 square feet for Building 1 and 126,091 square feet for Building 2 for a total of 265,758 square feet evaluated assuming 100% warehousing use (see Exhibit 1)
- Scenario 2: 119,315 square feet for Building 1 and 119,127 square feet for Building 2 for a total of 244,442 square feet evaluated assuming 177,331 square feet of warehousing and 61,111 square feet of manufacturing use (see Exhibit 2)

There is an existing underutilized warehouse use with some light manufacturing activity within an existing 99,165-square foot building. Access to the site is proposed to be the same between the two scenarios. Building 1 is proposed to have right-in/right-out access to Iowa Avenue and Building 2 is proposed to have right-in/right-out access on Palmyrita Avenue at the eastern end of the site with a shared full-access driveway located mid-point on the site frontage on Palmyrita Avenue which would serve both buildings.

EXHIBIT 1: PRELIMINARY SITE PLAN (SCENARIO 1)

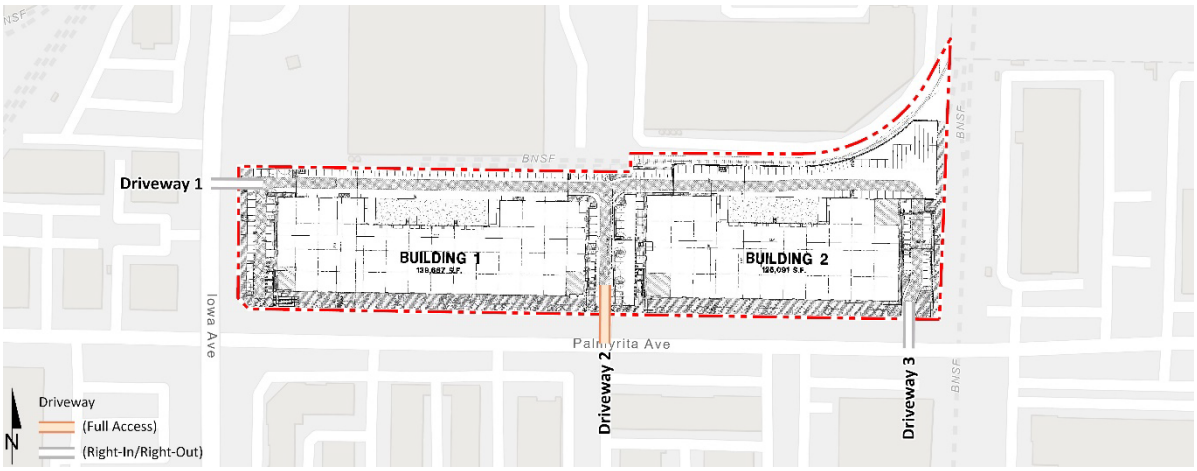
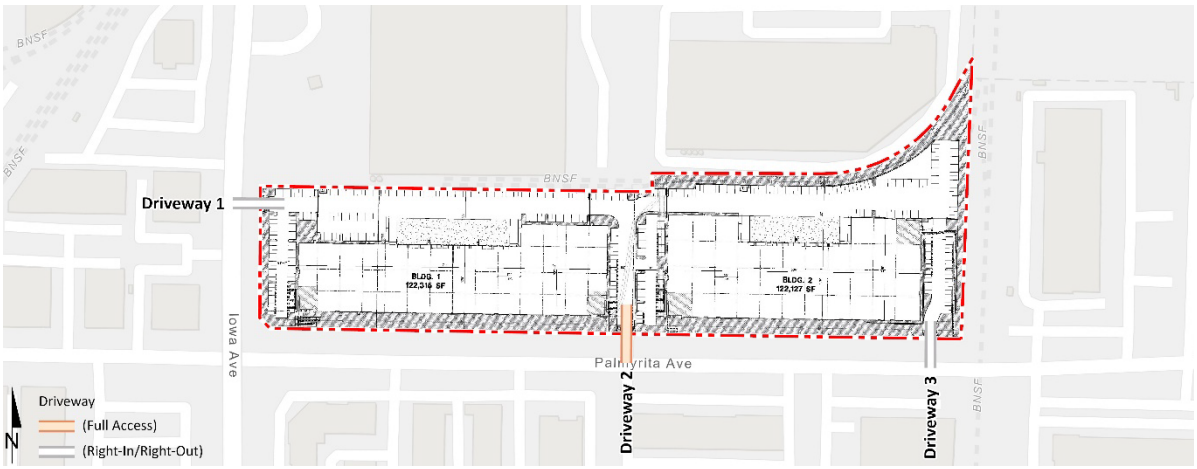


EXHIBIT 2: PRELIMINARY SITE PLAN (SCENARIO 2)



TRIP GENERATION

EXISTING TRAFFIC

The Project site is currently used for a small-scale manufacturing facility occupied by Barrette Wood USA and Barrette Outdoor Living in an existing warehouse building on the west side of the site. Two area of grasslands are located on the western and eastern portions of the site. The central and eastern portions of the Project site consist of paved parking. An inactive railroad spur diagonally transects the eastern side of the Project site. Two additional freight lines transect the northern and eastern perimeters of the Project site. Associated landscaping is located along the southern border of the Project site adjacent to Palmyrita Avenue.

The existing underutilized warehouse use currently includes some light manufacturing activity within an existing 99,165-square foot building (evaluated as manufacturing use). In an effort to understand the existing traffic associated with the current uses, the trip generation rates used

for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual (11th Edition, 2021) using the manufacturing (ITE Land Use Code 140) and warehousing (ITE Land Use Code 150) land use categories (see Table 1).

TABLE 1: TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Manufacturing[3]	140	TSF	0.517	0.163	0.680	0.229	0.511	0.740	4.750
Passenger Cars			0.500	0.150	0.650	0.217	0.493	0.710	4.300
Trucks			0.017	0.013	0.030	0.012	0.018	0.030	0.450
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
Trucks			0.011	0.009	0.020	0.016	0.014	0.030	0.600
Passenger Car Equivalent (PCE):									
Manufacturing[3]	140	TSF	0.517	0.163	0.680	0.229	0.511	0.740	4.750
Passenger Cars			0.500	0.150	0.650	0.217	0.493	0.710	4.300
Trucks (PCE = 2.0)			0.034	0.026	0.060	0.025	0.035	0.060	0.900
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
Trucks (PCE = 2.0)			0.022	0.018	0.040	0.032	0.028	0.060	1.200

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

The following summarizes the proposed land use and vehicle mix:

- Manufacturing – ITE land use code 140 has been used to derive site specific trip generation estimates for both the existing use and the proposed Project. A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. The vehicle mix has been obtained from the ITE's latest Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- Warehousing – ITE Land Use Code 150 has been used to derive site specific trip generation estimates for the proposed Project. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has also been obtained from the ITE's latest Trip Generation Manual. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

The average trip generation rate has been utilized for both land uses as opposed to using the regression equation (fitted curve method). For a building at 99,165 square feet (existing use) the average trip generation rates for both land uses is less than the fitted curve rates. In order to conduct a conservative analysis and calculate a lower trip generation for the existing use, which would be used to take credit against the proposed uses, the average rates have been used. For the proposed Project square footage, the average trip generation rates are either very similar to or greater than the fitted curve rates.

The trip generation summary illustrating daily, and peak hour trip generation estimates for the existing use in actual and passenger car equivalent (PCE) vehicles are shown on Table 2. As shown in Table 2, the existing use generates a total of 474 two-way trips per day with 72 AM peak hour trips and 78 PM peak hour trips (in actual vehicles). In comparison, the existing use generates a total of 520 two-way PCE trips per day with 74 PCE AM peak hour trips and 80 PCE PM peak hour trips (see also Table 2).

PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the City Guidelines and with those used for other projects within the City (PCE factor of 2.0 for all heavy trucks).

TABLE 2: EXISTING TRIP GENERATION

			AM Peak Hour			PM Peak Hour			
Existing Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Manufacturing	99.165	TSF							
Passenger Cars:			50	15	65	22	49	71	428
Total Trucks:			4	3	7	3	4	7	46
Total Trips (Actual Vehicles)			**54**	**18**	**72**	**25**	**53**	**78**	**474**
Passenger Car Equivalent (PCE):									
Manufacturing	99.165	TSF							
Passenger Cars:			50	15	65	22	49	71	428
Total Trucks (PCE):			5	4	9	4	5	9	92
Total Trips (PCE)			**55**	**19**	**74**	**26**	**54**	**80**	**520**

[1] TSF = thousand square feet

PROPOSED PROJECT

The trip generation rates used for this analysis are based upon information collected by the ITE as provided in their Trip Generation Manual (11th Edition, 2021) are shown previously on Table 1.

Scenario 1:

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project (Scenario 1) in actual and PCE vehicles are shown on Table 3 based on 265,758 square feet of warehousing use. As shown in Table 3, the proposed Project is anticipated to generate a total of 456 two-way trips per day with 46 AM peak hour trips and 50 PM peak hour trips (in actual vehicles). In comparison, the proposed Project is anticipated to generate a total of 616 PCE two-way trips per day with 51 PCE AM peak hour trips and 58 PCE PM peak hour trips (see also Table 3).

TABLE 3: PROJECT TRIP GENERATION SUMMARY (SCENARIO 1)

			AM Peak Hour			PM Peak Hour			
Project Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Warehouse	265.758	TSF							
Passenger Cars:			32	8	40	10	31	41	296
Total Trucks:			3	3	6	5	4	9	160
Total Trips (Actual Vehicles)			**35**	**11**	**46**	**15**	**35**	**50**	**456**
Passenger Car Equivalent (PCE):									
Warehouse	265.758	TSF							
Passenger Cars:			32	8	40	10	31	41	296
Total Trucks (PCE):			6	5	11	9	8	17	320
Total Trips (PCE)			**38**	**13**	**51**	**19**	**39**	**58**	**616**

[1] TSF = thousand square feet

Scenario 2:

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project (Scenario 2) in actual and PCE vehicles are shown on Table 4 based on 177,331 square feet of warehousing use and 61,111 square feet of manufacturing use. As shown in Table 4, the proposed Project is anticipated to generate a total of 598 two-way trips per day with 74 AM peak hour trips and 79 PM peak hour trips (in actual vehicles). In comparison, the proposed Project is anticipated to generate a total of 732 PCE two-way trips per day with 80 PCE AM peak hour trips and 86 PCE PM peak hour trips (see also Table 4).

TABLE 4: PROJECT TRIP GENERATION SUMMARY (SCENARIO 2)

Project Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Manufacturing	61.111	TSF							
Passenger Cars:			31	9	40	13	30	43	264
Total Trucks:			1	1	2	1	1	2	28
Warehouse	177.331	TSF							
Passenger Cars:			22	6	28	7	21	28	198
Total Trucks:			2	2	4	3	3	6	108
Total Trips (Actual Vehicles)			**56**	**18**	**74**	**24**	**55**	**79**	**598**
Passenger Car Equivalent (PCE):									
Manufacturing	61.111	TSF							
Passenger Cars:			31	9	40	13	30	43	264
Total Trucks (PCE):			2	2	4	2	2	4	56
Warehouse	177.331	TSF							
Passenger Cars:			22	6	28	7	21	28	198
Total Trucks (PCE):			4	4	8	6	5	11	214
Total Trips (PCE)			**59**	**21**	**80**	**28**	**58**	**86**	**732**

[1] TSF = thousand square feet

TRIP GENERATION COMPARISON

Table 5 shows the trip generation comparison between the existing and proposed use for Scenario 1 and Scenario 2 is summarized on Table 6. The resulting net new trips are identified on Table 5 and Table 6 for each Project Scenario. Per the City's Guidelines, the trip generation comparison is based on PCE as the existing and proposed uses are truck-intensive uses.

As shown on Table 5, the Project (Scenario 1) is anticipated to generate 96 net new two-way trips per day with a net reduction of 23 AM peak hour trips and 22 PM peak hour trips (in PCE) as compared to the existing use.

TABLE 5: TRIP GENERATION COMPARISON (EXISTING VS. SCENARIO 1)

	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
Proposed Project							
Passenger Cars:	32	8	40	10	31	41	296
Total Truck Trips (Actual Vehicles):	3	3	6	5	4	9	160
Total Truck Trips (PCE):	6	5	11	9	8	17	320
Total Trips (Actual Vehicles)[1]	**35**	**11**	**46**	**15**	**35**	**50**	**456**
Total Trips (PCE)[1]	**38**	**13**	**51**	**19**	**39**	**58**	**616**
Existing Use							
Passenger Cars:	50	15	65	22	49	71	428
Total Truck Trips (Actual Vehicles):	4	3	7	3	4	7	46
Total Truck Trips (PCE):	5	4	9	4	5	9	92
Total Trips (Actual Vehicles)[1]	**54**	**18**	**72**	**25**	**53**	**78**	**474**
Total Trips (PCE)[1]	**55**	**19**	**74**	**26**	**54**	**80**	**520**
Variance							
Passenger Cars:	-18	-7	-25	-12	-18	-30	-132
Total Truck Trips (Actual Vehicles):	-1	0	-1	2	0	2	114
Total Truck Trips (PCE):	1	1	2	5	3	8	228
Total Trips (Actual Vehicles)[1]	**-19**	**-7**	**-26**	**-10**	**-18**	**-28**	**-18**
Total Net Trips (PCE)[1]	**-17**	**-6**	**-23**	**-7**	**-15**	**-22**	**96**

[1] Total Trips = Passenger Cars + Truck Trips.

As shown on Table 6, the Project (Scenario 2) is anticipated to generate 212 net new two-way trips per day with a net increase of 6 AM peak hour trips and 6 PM peak hour trips (in PCE) as compared to the existing use.

TABLE 6: TRIP GENERATION COMPARISON (EXISTING VS. SCENARIO 2)

	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
Proposed Project							
Passenger Cars:	53	15	68	20	51	71	462
Total Truck Trips (Actual Vehicles):	3	3	6	4	4	8	136
Total Truck Trips (PCE):	6	6	12	8	7	15	270
Total Trips (Actual Vehicles)[1]	**56**	**18**	**74**	**24**	**55**	**79**	**598**
Total Trips (PCE)[1]	**59**	**21**	**80**	**28**	**58**	**86**	**732**
Existing Use							
Passenger Cars:	50	15	65	22	49	71	428
Total Truck Trips (Actual Vehicles):	4	3	7	3	4	7	46
Total Truck Trips (PCE):	5	4	9	4	5	9	92
Total Trips (Actual Vehicles)[1]	**54**	**18**	**72**	**25**	**53**	**78**	**474**
Total Trips (PCE)[1]	**55**	**19**	**74**	**26**	**54**	**80**	**520**
Variance							
Passenger Cars:	3	0	3	-2	2	0	34
Total Truck Trips (Actual Vehicles):	-1	0	-1	1	0	1	90
Total Truck Trips (PCE):	1	2	3	4	2	6	178
Total Trips (Actual Vehicles)[1]	**2**	**0**	**2**	**-1**	**2**	**1**	**124**
Total Net Trips (PCE)[1]	**4**	**2**	**6**	**2**	**4**	**6**	**212**

[1] Total Trips = Passenger Cars + Truck Trips.

TRUCK ACCESS

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers. Both site plans have the same driveway layout and location, as such, only one set of truck turns has been prepared which is applicable to both plans. A WB-67 truck (53-foot trailer) has been utilized for the purposes of this analysis.

As shown on Exhibit 3, Driveway 1 should be widened by 5-feet and a minimum curb radius of 40-feet should be accommodated on the northeast and southeast corners to accommodate the ingress and egress of heavy trucks (right-in/right-out only). Exhibit 4 shows that Driveway 2 should accommodate a 40-foot curb radius on the northwest corner and a 50-foot curb radius on the northeast corner in order to accommodate the ingress and egress of heavy trucks. Lastly, Exhibit 5 shows that Driveway 3 should be straightened and widened by 20-feet with a minimum curb radius of 40-feet on the northwest and northeast corners in order to accommodate the

ingress and egress of heavy trucks (this driveway will be restricted to right-in/right-out access only).

EXHIBIT 3: TRUCK ACCESS AT DRIVEWAY 1

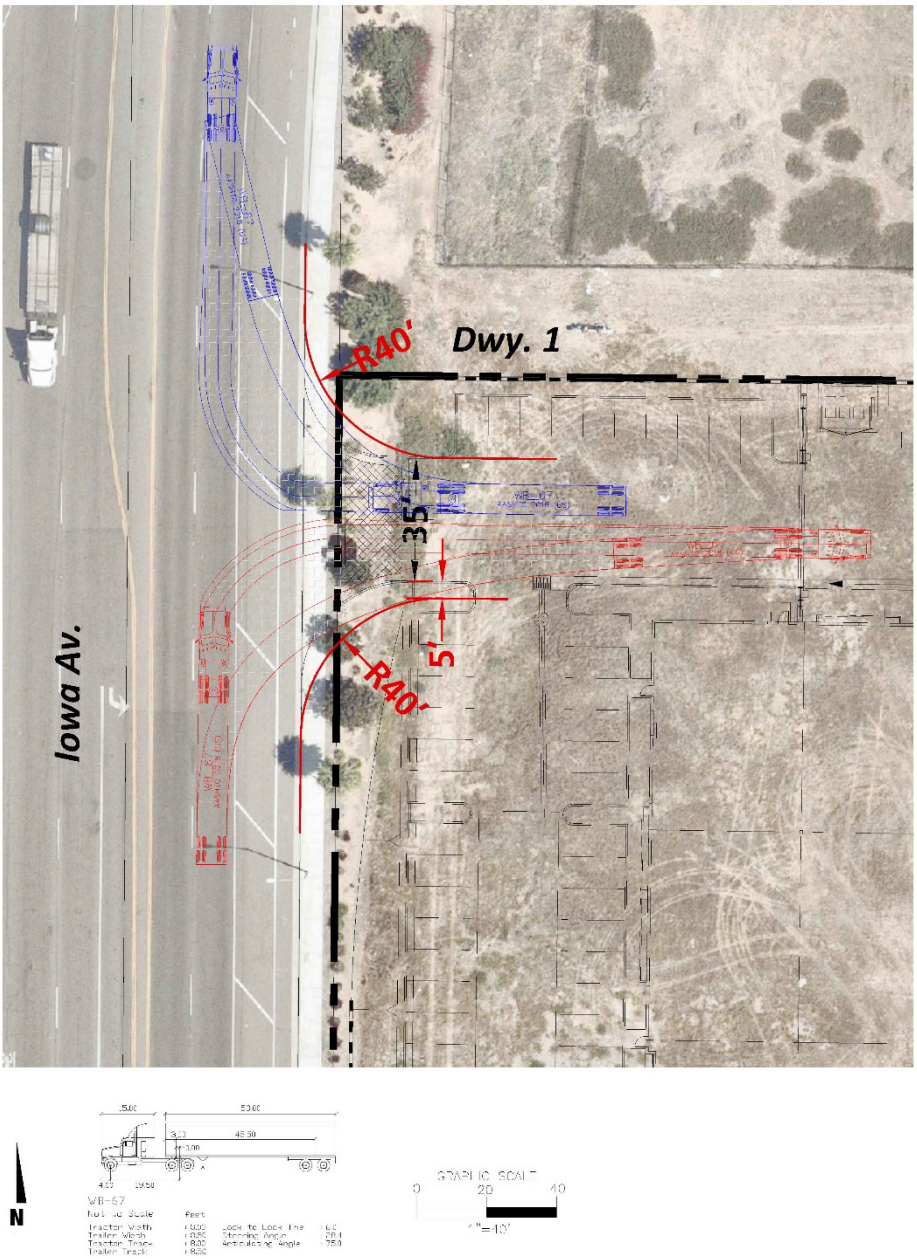


EXHIBIT 4: TRUCK ACCESS AT DRIVEWAY 2

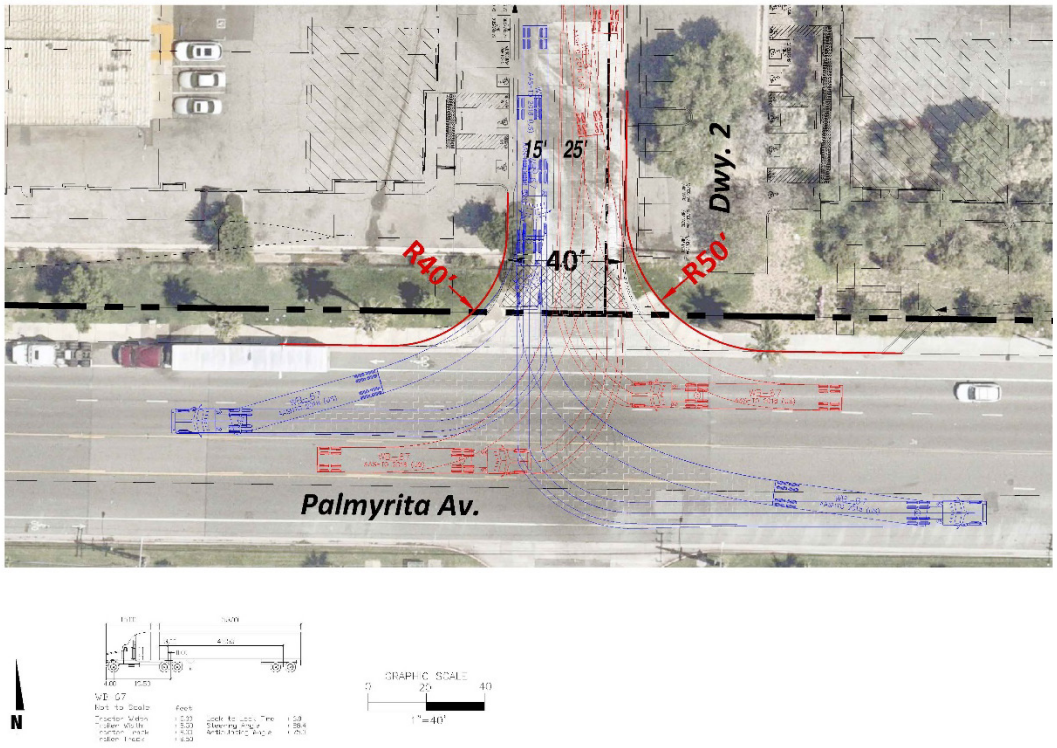
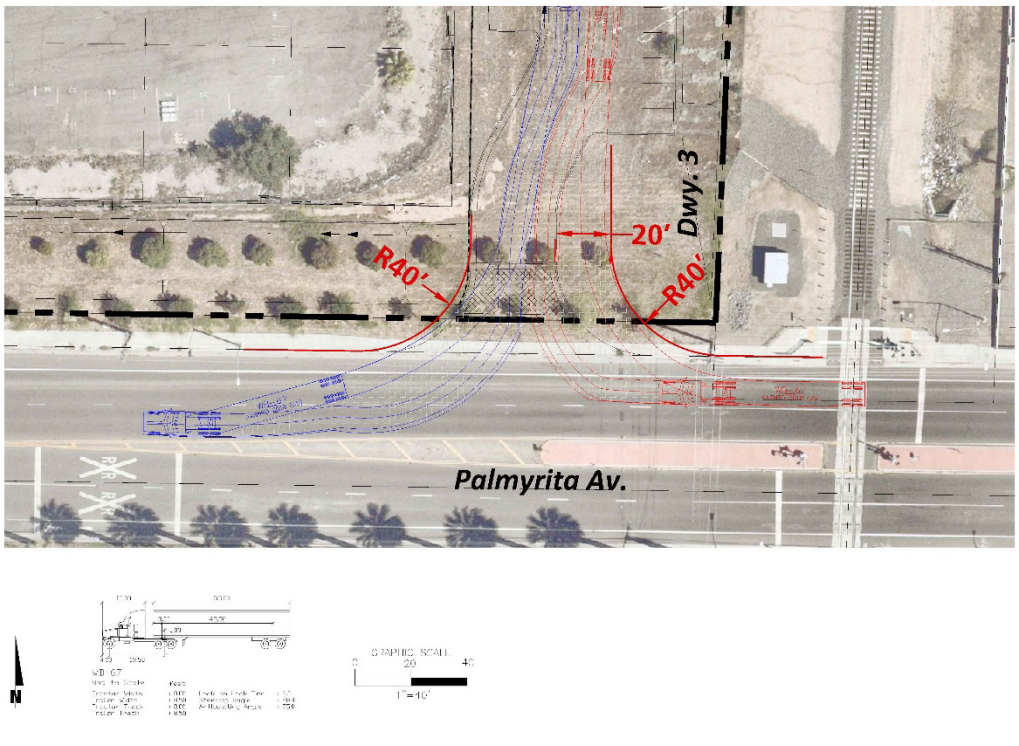


EXHIBIT 5: TRUCK ACCESS AT DRIVEWAY 3



FINDINGS

The City's Guidelines indicates that any use which can demonstrate, based on the most recent edition of the ITE Trip Generation Manual or other approved trip generation data, trip generation of less than 100 vehicle trips during the peak hours are generally exempt from Traffic Analysis requirements as the project would contribute less than 50 peak hour trips to any off-site intersection. The Project is anticipated to generate fewer than 100 net new peak hour trips for each Scenario (see Table 5 and Table 6). As such, additional traffic analysis is not required for this Project based on the City Guidelines.

If you have any questions or comments, I can be reached at cso@urbanxraods.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Principal



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H.2 - Vehicle Miles Traveled Analysis

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October 21, 2022

Ms. Angela Wolfe
FirstCarbon Solutions
250 Commerce, Ste 250
Irvine, CA 92602

PALMYRITA WAREHOUSES VEHICLE MILES TRAVELED (VMT) ANALYSIS

Ms. Angela Wolfe,

Urban Crossroads, Inc. is pleased to provide the following Vehicle Miles Traveled (VMT) Analysis for the Palmyrita Warehouses development (**Project**), which is located on the northeast corner of Iowa Avenue and Palmyrita Avenue in the City of Riverside.

PROJECT OVERVIEW

The Project will be evaluated assuming two potential land use scenarios:

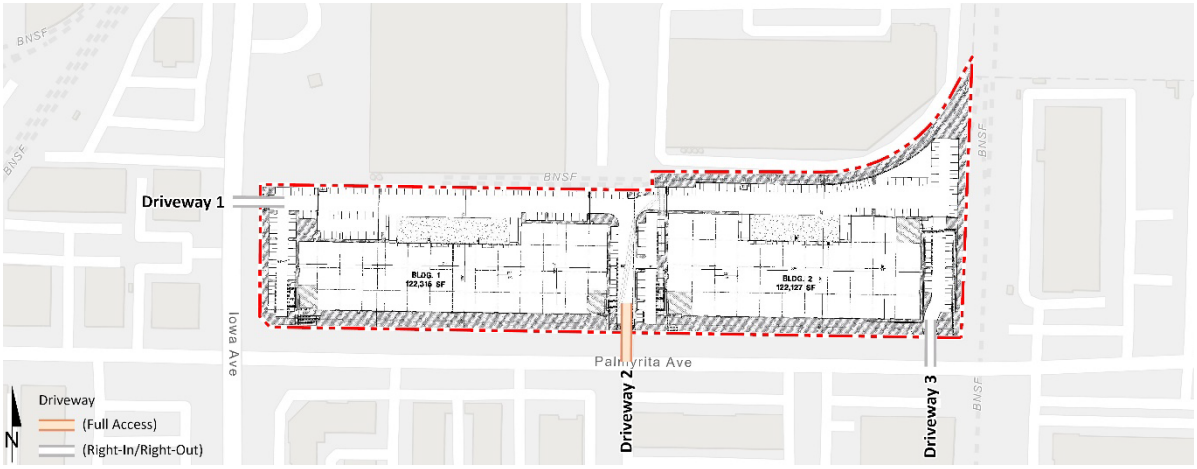
- Scenario 1: 139,667 square feet for Building 1 and 126,091 square feet for Building 2 for a total of 265,758 square feet evaluated assuming 100% warehousing use (see Exhibit 1)
- Scenario 2: 119,315 square feet for Building 1 and 119,127 square feet for Building 2 for a total of 244,442 square feet evaluated assuming 177,331 square feet of warehousing and 61,111 square feet of manufacturing use (see Exhibit 2)

There is an existing underutilized warehouse use with some light manufacturing activity within an existing 99,165-square foot building.

EXHIBIT 1: PRELIMINARY SITE PLAN (SCENARIO 1)



EXHIBIT 2: PRELIMINARY SITE PLAN (SCENARIO 2)



BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, requiring all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**) (1). The City of Riverside City Council adopted analytical procedures, screening tools, and impact thresholds for VMT, which are documented in the City of Riverside Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (July 2020) (**City Guidelines**) (2). The VMT analysis presented in this report has been developed based on the adopted City Guidelines.

VMT SCREENING

The City Guidelines provide details on appropriate screening criteria that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed project level analysis. To aid in the project-level VMT screening process, the City of Riverside utilizes the Western Riverside Council of Governments (WRCOG) VMT Screening Tool (**Screening Tool**). The web-based Screening Tool allows a user to select an assessor's parcel number (APN) to determine if a project's physical location meets one or more of the land use screening thresholds documented in the City Guidelines. Screening criteria is categorized into three steps:

Step 1: Transit Priority Area (TPA) Screening

Step 2: Low VMT Area Screening

Step 3: Project Type Screening

A land use project need only to meet one of the above screening criteria to result in a less than significant impact.

TPA SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary.

However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Based on the Screening Tool, the Project site is shown to be located within a TPA (See Attachment A). However, the Project does not meet the secondary criteria required to qualify for TPA screening, such as having a FAR of greater than 0.75. The Project is contemplated with a FAR of 0.44 for both scenarios.

TPA screening criteria is not met.

LOW VMT AREA SCREENING

City Guidelines state that "Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident or per worker that is similar to the existing land uses in the low VMT area- provided the VMT of the area falls below thresholds."[3] The City uses the WRCOG screening tool to determine low areas of VMT. The screening tool uses the sub-regional Riverside County Model (RIVCOM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the region. The Project's physical location is selected in the Screening Tool by parcel to determine project generated VMT as compared to the City's impact threshold. The parcel containing the proposed Project was

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").
[3] City Guidelines; Page 24

selected and the screening tool was run for the VMT per service employee measure of VMT based on the employment generating nature of the Project. The Project resides within TAZ 1999 and was found to generate 17.5 VMT per employee. This is greater than the City's impact threshold of 13.8 VMT per employee (calculated as 15% below baseline City of Riverside VMT). Accordingly, the Project does not reside within a Low VMT Area (See Attachment A).

Low VMT Area screening criteria is not met.

PROJECT TYPE SCREENING

The City Guidelines identify that local serving retail less than 50,000 square feet or other local serving essential services (e.g., local parks, day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The Project is not intending to develop any local serving retail or essential services.

In addition, the City Guidelines indicate that projects generating fewer than 110 daily vehicle trips may be presumed to have a less than significant impact, subject to discretionary approval by the City.

Project Trip Generation

Existing Traffic

There is an existing underutilized warehouse use with some light manufacturing activity within an existing 99,165-square foot building. In an effort to understand the existing traffic associated with the current uses, the trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual (11th Edition, 2021) (3) for the proposed manufacturing use (ITE Land Use Code 140) and warehousing use (ITE Land Use Code 150) (see Table 1).

TABLE 1: TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Manufacturing[3]	140	TSF	0.517	0.163	0.680	0.229	0.511	0.740	4.750
Passenger Cars			0.500	0.150	0.650	0.217	0.493	0.710	4.300
Trucks			0.017	0.013	0.030	0.012	0.018	0.030	0.450
Warehousing[3]	150	TSF	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
Trucks			0.011	0.009	0.020	0.016	0.014	0.030	0.600

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

The following summarizes the proposed land use and vehicle mix:

- Manufacturing – ITE land use code 140 has been used to derive site specific trip generation estimates for both the existing use and proposed Project. A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. The vehicle mix has been obtained from the ITE's latest Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- Warehousing – ITE Land Use Code 150 has been used to derive site specific trip generation estimates for both the existing use and proposed Project. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has also been obtained from the ITE's latest Trip Generation Manual. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

The trip generation summary illustrating daily, and peak hour trip generation estimates for the existing use in actual vehicles are shown on Table 2. As shown in Table 2, the existing use generates a total of 474 daily vehicle trips.

TABLE 2: EXISTING TRIP GENERATION

			AM Peak Hour			PM Peak Hour			
Existing Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Actual Vehicles:									
Manufacturing	99.165	TSF							
Passenger Cars:			50	15	65	22	49	71	428
Total Trucks:			4	3	7	3	4	7	46
Total Trips (Actual Vehicles)			**54**	**18**	**72**	**25**	**53**	**78**	**474**

[1] TSF = thousand square feet

Proposed Project

The trip generation rates used for this analysis are based upon information collected by the ITE as provided in their Trip Generation Manual (11th Edition, 2021) are shown previously on Table 1.

Scenario 1:

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project (Scenario 1) in actual vehicles are shown on Table 3 based on 265,758 square feet of warehousing use. As shown in Table 3, the proposed Project is anticipated to generate a total of 456 daily vehicle trips.

TABLE 3: PROJECT TRIP GENERATION SUMMARY (SCENARIO 1)

Project Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Warehouse	265.758	TSF							
Passenger Cars:			32	8	40	10	31	41	296
Total Trucks:			3	3	6	5	4	9	160
Total Trips (Actual Vehicles)			**35**	**11**	**46**	**15**	**35**	**50**	**456**

[1] TSF = thousand square feet

Scenario 2:

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project (Scenario 2) in actual vehicles are shown on Table 4 based on 177,331 square feet of warehousing use and 61,111 square feet of manufacturing use. As shown in Table 4, the proposed Project is anticipated to generate a total of 598 daily vehicle trips.

TABLE 4: PROJECT TRIP GENERATION SUMMARY (SCENARIO 2)

Project Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
Manufacturing	61.111	TSF							
Passenger Cars:			31	9	40	13	30	43	264
Total Trucks:			1	1	2	1	1	2	28
Warehouse	177.331	TSF							
Passenger Cars:			22	6	28	7	21	28	198
Total Trucks:			2	2	4	3	3	6	108
Total Trips (Actual Vehicles)			**56**	**18**	**74**	**24**	**55**	**79**	**598**

[1] TSF = thousand square feet

Trip Generation Comparison

Table 5 shows the trip generation comparison between the existing and proposed use for Scenario 1 and Table 6 shows the trip generation comparison for Scenario 2. The resulting net new trips are identified on Table 5 and Table 6 for each Project Scenario.

As shown on Table 5, the Project (Scenario 1) is anticipated to generate a net reduction of 18 daily vehicle trips.

TABLE 5: TRIP GENERATION COMPARISON (EXISTING VS. SCENARIO 1)

	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
Proposed Project							
Passenger Cars:	32	8	40	10	31	41	296
Total Truck Trips (Actual Vehicles):	3	3	6	5	4	9	160
Total Trips (Actual Vehicles)[1]	**35**	**11**	**46**	**15**	**35**	**50**	**456**
Existing Use							
Passenger Cars:	50	15	65	22	49	71	428
Total Truck Trips (Actual Vehicles):	4	3	7	3	4	7	46
Total Trips (Actual Vehicles)[1]	**54**	**18**	**72**	**25**	**53**	**78**	**474**
Variance							
Passenger Cars:	-18	-7	-25	-12	-18	-30	-132
Total Truck Trips (Actual Vehicles):	-1	0	-1	2	0	2	114
Total Trips (Actual Vehicles)[1]	**-19**	**-7**	**-26**	**-10**	**-18**	**-28**	**-18**

[1] Total Trips = Passenger Cars + Truck Trips.

As shown on Table 6, the Project (Scenario 2) is anticipated to generate 124 net new daily vehicle trips.

TABLE 6: TRIP GENERATION COMPARISON (EXISTING VS. SCENARIO 2)

	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
Proposed Project							
Passenger Cars:	53	15	68	20	51	71	462
Total Truck Trips (Actual Vehicles):	3	3	6	4	4	8	136
Total Trips (Actual Vehicles)[1]	**56**	**18**	**74**	**24**	**55**	**79**	**598**
Existing Use							
Passenger Cars:	50	15	65	22	49	71	428
Total Truck Trips (Actual Vehicles):	4	3	7	3	4	7	46
Total Trips (Actual Vehicles)[1]	**54**	**18**	**72**	**25**	**53**	**78**	**474**
Variance							
Passenger Cars:	3	0	3	-2	2	0	34
Total Truck Trips (Actual Vehicles):	-1	0	-1	1	0	1	90
Total Trips (Actual Vehicles)[1]	**2**	**0**	**2**	**-1**	**2**	**1**	**124**

[1] Total Trips = Passenger Cars + Truck Trips.

Scenario 1 results in a net reduction of 18 daily vehicle trips and does not exceed the 110 daily vehicle trip threshold, however, Scenario 2 is estimated to generate a net increase of 124 daily vehicle trips, which exceeds the 110 daily vehicle trip threshold.

Project Type screening criteria is met for only Scenario 1.

Based on a more detailed review of the applicable VMT screening methods, it was determined that the Project's Scenario 2 is not eligible for screening and therefore, VMT analysis should be performed for this scenario.

VMT ANALYSIS FOR SCENARIO 2

VMT MODELING

City Guidelines identify the Riverside County Model (**RIVCOM**), as the appropriate tool for conducting VMT analysis for land use projects in the City of Riverside. RIVCOM was released in June 2021 and is the most current sub-regional modeling tool for Western Riverside County. RIVCOM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle type. RIVCOM is also consistent with the model used to develop the City's VMT impact threshold listed by the City Guidelines. Therefore, the vehicle trips and average daily trip length for project-related vehicle trips are derived using RIVCOM.

VMT METRIC AND SIGNIFICANCE THRESHOLD

The City Guidelines state for industrial land use projects in the City of Riverside shall use the VMT metric of VMT per employee as the appropriate measure in a VMT analysis. The City Guidelines have identified following recommended threshold would result in a significant impact:

- For office and industrial projects: the baseline or cumulative project-generated VMT per employee exceeds 15% below the current jurisdictional baseline VMT per employee

To establish the City of Riverside's baseline VMT per employee "no project" model runs will be performed and calculated utilizing RIVCOM to provide a consistent comparison. All TAZs located within the City of Riverside were selected and the home-based work (HBW) VMT was calculated from the RIVCOM base year (2018) and cumulative year (2045) traffic models. To obtain baseline (2022) conditions a straight-line interpolation calculation of the base year and cumulative year model results were then calculated. For ease of comparison, the HBW VMT for the City of Riverside was then divided by the City's employment. Citywide VMT per employee for base year, cumulative year, and baseline 2022 traffic conditions are shown in Table 1. The baseline citywide average VMT per employee is 32.15 and 15% below the citywide average is **27.33 VMT per employee**.

TABLE 7: CITY OF RIVERSIDE VMT PER EMPLOYEE

	Base Year	Cumulative Year	Baseline
Citywide Average HBW VMT	4,841,723	6,051,163	5,020,899
Citywide Employees	150,086	191,799	156,266
Citywide VMT per Employee	32.26	31.55	32.15

PROJECT LAND USE CONVERSION

In order to evaluate Project VMT, land use information must first be converted into a RIVCOM compatible dataset. The RIVCOM model utilizes socio-economic data (**SED**) (e.g., population, households, employment, etc.) instead of land use information for the purposes of vehicle trip estimation. Table 8 summarizes the employment density factor for the Project based on information contained in the County of Riverside General Plan Appendix E-2 (4) to estimate the number of Project employees by land use type used to populate the RIVCOM model.

TABLE 8: EMPLOYMENT ESTIMATES

	Project Scenario 2
Quantity	244,442 SF
Employment Factor	1,030 SF per Employee
Employees	236

The RIVCOM model was then run inclusive of the Project's SED inputs.

PROJECT GENERATED VMT PER EMPLOYEE CALCULATION

RIVCOM was utilized to calculate project generated VMT for the industrial land uses and that value was then divided by the Project's employment estimate to derive project generated VMT per employee. Project-generated VMT per employee was then calculated for both the base year model (2018) and cumulative year model (2045). Then straight-line linear interpolation was used to determine the Project's baseline (2022) VMT per employee. Table 9 presents HBW VMT as calculated from RIVCOM for the Project's industrial land uses, the number of Project employees, and Project VMT per employee.

TABLE 9: PROJECT GENERATED VMT PER EMPLOYEE

	Base Year	Cumulative Year	Baseline
Project HBW VMT	6,109	6,340	6,143
Project Employees	236	236	156,266
Project VMT per Employee	25.88	26.86	26.03

PROJECT COMPARISON TO SIGNIFICANCE THRESHOLD

Table 10 illustrates the comparison between Project generated VMT per employee in the Baseline and Cumulative Conditions to the baseline City of Riverside jurisdictional average, as previously noted, of 32.15 VMT per employee, a 15% below the jurisdictional average is 27.33 VMT per employee. As shown, the Project would not exceed the City's threshold for either the Baseline or Cumulative Project conditions. The Project VMT impact is therefore considered less than significant.

TABLE 4: PROJECT VMT PER EMPLOYEE COMPARISON

	Baseline	Cumulative
Impact Threshold	27.33	27.33
Project VMT per SP	26.03	26.86
Percent Below Threshold	-4.76%	-1.72%
Potentially Significant?	No	No

PROJECT CUMULATIVE IMPACT ON VMT

The Technical Advisory notes that "… metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency…cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact." Accordingly, City Guidelines state "…cumulative no project shall reflect the adopted RTP/SCS; as such, if a project is consistent with the regional RTP/SCS, the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence."[4] Since the Project proposed industrial land use is consistent with the City of Riverside's General Plan and the project level VMT per employee was found to be less than significant. Resulting in the Project's cumulative VMT impact is also to be considered less than significant.

SUMMARY AND CONCLUSION

Based on the results of this analysis the following findings are made:

- The Project VMT impact was evaluated against screening criteria as outlined in the City Guidelines.
- The Project's Scenario 1 was found to meet the Project Type screening criteria and is presumed to be less than significant; no further analysis required for Scenario 1.
- The Project's Scenario 2 was not found to meet any available screening criteria, and a model based VMT impact analysis was therefore performed.
- The Project's Scenario 2 VMT impact analysis substantiates that Project VMT is below the City's VMT per employee threshold by 4.76% in baseline conditions and 1.72% in cumulative conditions. The Projects Scenario 2 is therefore determined to have a less than significant VMT impact.

[4] City Guidelines; Page 28

If you have any questions, please contact me directly at aso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

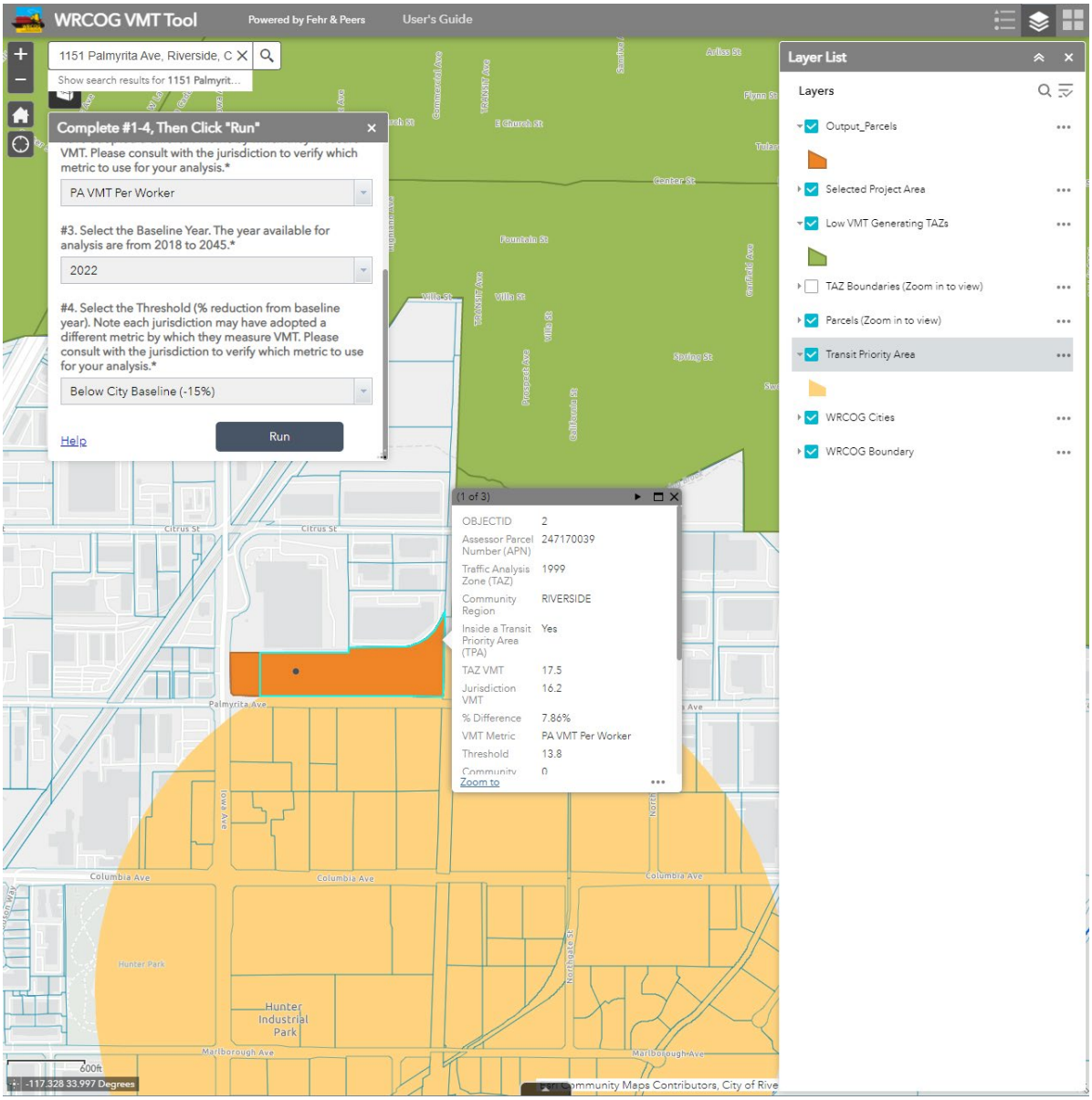


Alexander So
Senior Associate

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **City of Riverside Public Works Department.** *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment.* City of Riverside : s.n., July 2020.
3. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
4. **County of Riverside.** *Appendix E: Socioeconomic Build-Out Assumptions and Methodology.* County of Riverside : s.n., April 2017.

ATTACHMENT A
WRCOG SCREENING TOOL


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
1151 Palmyrita Ave, Riverside, C
Show search results for 1151 Palmyrit...
Complete #1-4, Then Click "Run"
VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Worker
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2022
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (-15%)
Help
Run
Layer List
Layers
Output_Parcels
Selected Project Area
Low VMT Generating TAZs
TAZ Boundaries (Zoom in to view)
Parcels (Zoom in to view)
Transit Priority Area
WRCOG Cities
WRCOG Boundary
(1 of 3)
OBJECTID 2
Assessor Parcel Number (APN) 247170039
Traffic Analysis Zone (TAZ) 1999
Community Region RIVERSIDE
Inside a Transit Priority Area (TPA) Yes
TAZ VMT 17.5
Jurisdiction VMT 16.2
% Difference 7.86%
VMT Metric PA VMT Per Worker
Threshold 13.8
Community 0
Zoom to
Citrus St
Palmyrita Ave
Columbia Ave
Hunter Park
Hunter Industrial Park
Marlborough Ave
600ft
-117.328 33.997 Degrees

ATTACHEMENT B
RIVCOM VMT OUTPUT DATA

TABLE 1: 2018 RIVCOM OUTPUT

TAZ	1999
Daily_Home-Based (incl. IEHB) Prod VMT	0
Daily_HBW (incl. EIHBW) Attr VMT	80382.53906
Daily_Total Auto OD From VMT	53289.85938
Daily_Total Auto OD To VMT	57259.30078
Daily_Total Auto OD Intra VMT	33.118717
Daily_Total Truck OD From VMT	7073.716797
Daily_Total Truck OD To VMT	7112.036133
Daily_Total Truck OD Intra VMT	4.48562
Daily_Total OD From VMT	60363.57813
Daily_Total OD To VMT	64371.33594
Daily_Total OD Intra VMT	37.604336
Daily_Total_TripLen	18.059578
Population	0
Employment	2454
Enrollment	0

TABLE 2: 2045 RIVCOM OUTPUT

TAZ	1999
Daily_Home-Based (incl. IEHB) Prod VMT	0
Daily_HBW (incl. EIHBW) Attr VMT	89561.69531
Daily_Total Auto OD From VMT	59323.25781
Daily_Total Auto OD To VMT	63439.72656
Daily_Total Auto OD Intra VMT	42.603203
Daily_Total Truck OD From VMT	6265.550781
Daily_Total Truck OD To VMT	6281.273926
Daily_Total Truck OD Intra VMT	4.729783
Daily_Total OD From VMT	65588.8125
Daily_Total OD To VMT	69721
Daily_Total OD Intra VMT	47.332985
Daily_Total_TripLen	18.314655
Population	0
Employment	2803
Enrollment	0