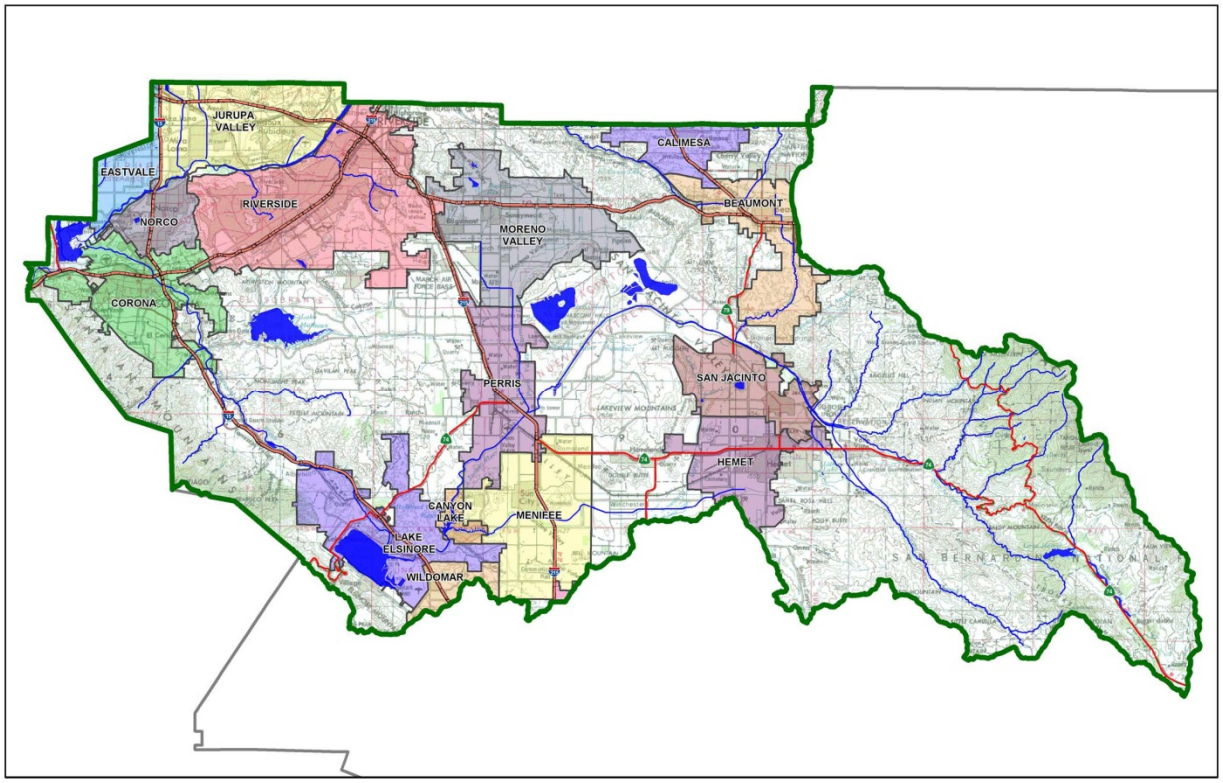
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Moreno Valley Trade Center Option 2-E Commerce/Fulfillment Center Site Plan

Development No: 488-340-002 through -012

Design Review/Case No: PEN19-0193/LWQ19-0035



☒ **Preliminary**
☐ **Final**

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Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

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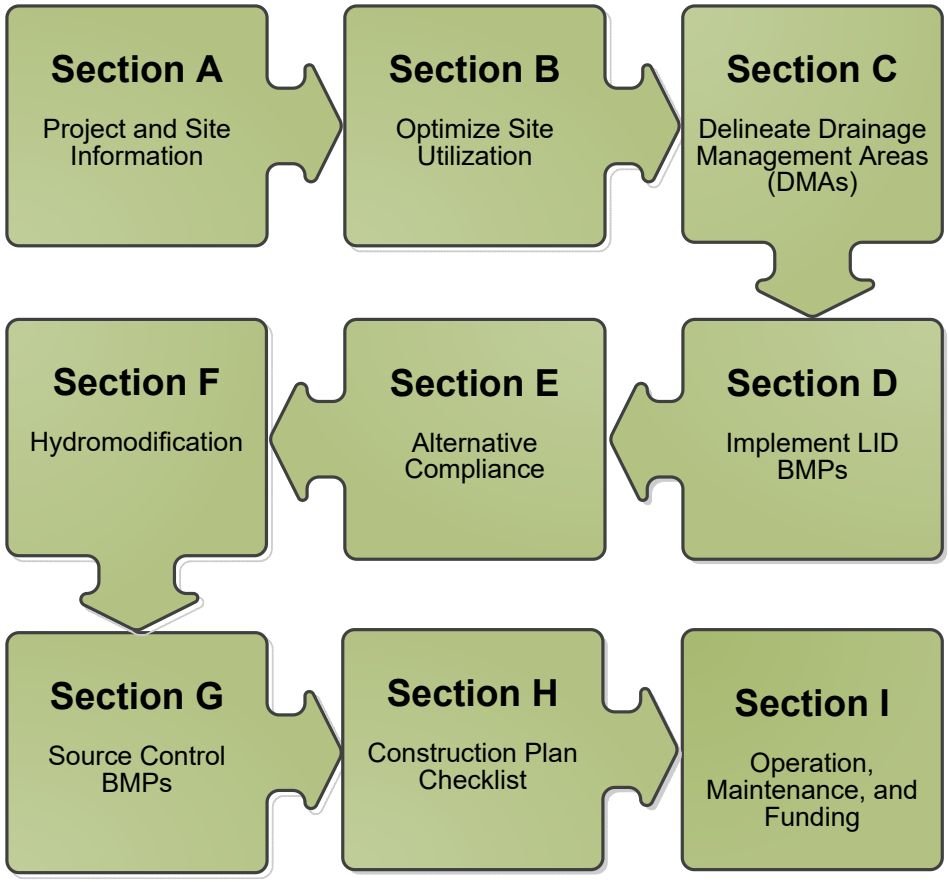
A Brief Introduction

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 **Hillwood Investments** by Thienes Engineering, Inc. for the **Moreno Valley Trade Center Option 2-E Commerce/Fulfillment Center Site Plan** project.

This WQMP is intended to comply with the requirements of Moreno Valley for Riverside County Ordinance No. 827 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 Moreno Valley Water Quality Ordinance (Municipal Code Section 8.10).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control 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
Reinhard Stenzel	Director of Engineering
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Light Industrial
Planning Area:	N/A
Community Name:	N/A
Development Name:	Moreno Valley Trade Center Option 2-E Commerce/Fulfillment Center Site Plan

PROJECT LOCATION
Latitude & Longitude (DMS): 33.933611, -117.161111
Project Watershed and Sub-Watershed: Santa Ana River & San Jacinto
APN(s): 488-340-002 through -012
Map Book and Page No.: Assessor's Map BK.488 PG.34

PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Light Industrial
Proposed or Potential SIC Code(s)	4225
Area of Impervious Project Footprint (SF)	3,176,395
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	3,176,395 (72.92 acres, where 66.00 is onsite and 6.92 acres is offsite)
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 (SF)	7,850
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	Not A Part
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)	Type B
What is the Water Quality Design Storm Depth for the project?	0.68

PROJECT DESCRIPTION

The project site is located at the southwest corner of Eucalyptus Avenue and Redlands Boulevard in the City of Moreno Valley.

The project site encompasses approximately 80.02 acres, which consists of 72.45 acres of onsite improvements and 7.57 acres of offsite improvements. However, approximately 2.80 acres along the westerly property line are within an existing drainage channel (Quincy Wash) and will remain undisturbed. Proposed improvements include one warehouse type building with approximately 1,328,853 square feet. There is a truck yard area on the northerly side of the building. The southerly side of the building only consists of loading docks. Vehicle parking is primarily located on the easterly and southerly sides of the building with some additional parking areas along the westerly drive aisle. There are four bioretention facilities located along the southerly side of the side adjacent to Encelia Avenue. Additional landscaped areas are located adjacent to the streets and smaller areas throughout the project site.

Master Plan Drainage

The project site is tabled to a storm drain system in Redlands Boulevard (Moreno MDP Line F-2). At this time, only portions of the Master Plan Storm Drain system are constructed. Recent improvements to the north of the project site (Aldi Foods) constructed a portion of the ultimate storm drain in Redlands Boulevard. This is a 60"-72" storm drain (plans prepared by Huitt-Zollars) that connects to an existing 51" storm drain in Redlands Boulevard approximately 200' north of Eucalyptus Avenue and continues approximately 350' south of Eucalyptus Avenue to where it daylights into an existing unimproved earthen channel. This storm drain and channel is located at the easterly portion of the project site.

Runoff continues southerly in the unimproved earthen channel to an existing headwall located northerly of Dracaea Avenue. This is the upstream portion of Riverside County Flood Control and Water Conservation District storm drain Line "F-2". This is an existing 42" storm drain system that does not appear to be adequately sized for the peak flow rates specified in the recently constructed upstream storm drain system. The existing storm drain continues southerly past Brodiaea Avenue and discharges into an existing earthen channel (Line "F").

Existing Conditions

The project site is generally a vacant lot with natural grasses and weeds. The southeasterly portion of the site is an existing plant nursery. The nursery has a few small structures and appears unpaved. The westerly portion of the property is an unimproved drainage channel (Quincy Wash).

Runoff from the site generally drains from north to south towards Encelia Avenue. Encelia Avenue drains from west to east to Redlands Boulevard ultimately to the existing channel adjacent to Redlands Boulevard.

Proposed Conditions

Runoff from the westerly drive isle and vehicle parking area (DMA A) drains to catch basins and is conveyed southerly via a proposed storm drain to bioretention facility BIO "A". A portion of the southwest corner of the building also drains to the same bioretention facility.

Runoff from most of the southerly half of the building and most of the southerly vehicle parking lot (DMA B) drains southerly to several catch basins near the basins. Two proposed storm drains convey these flows to bioretention facility BIO "B".

Runoff from most of the northerly half of the building and most of the northerly truck yard (DMA C) drains to several catch basins located in the truck yard area. A proposed storm drain conveys runoff westerly around the building and then southerly to bioretention facility BIO "C".

Runoff from the remaining northerly half of the building, the remaining northerly truck yard area and the easterly vehicle parking lot (DMA D) drains to several catch basins in the vehicle parking lots. A proposed storm drain then conveys runoff southerly to bioretention facility BIO "D".

Discharge from the bioretention facilities will be conveyed easterly through the project site in a proposed storm drain and connect to the proposed extension of the public storm drain system in Redlands Boulevard. This will eliminate runoff to Encelia Avenue as well as the need for Master Drainage Plan Lateral "F-17". The proposed public storm drain will be sized to include the ultimate peak flow rates upstream as well as the discharge from the bioretention facility. The storm drain will continue south of Encelia Avenue and daylight through a proposed open channel approximately 300' south of the street, similar to how the existing 72" storm drain daylights adjacent to the project site.

Landscaped areas adjacent to Redlands Boulevard and Encelia Avenue (approximately 1.55 acres) will sheet flow to their respective streets. These areas are considered self-treating areas.

Approximately 2.80 acres of area adjacent to the Quincy Wash at the westerly portion of the site will remain undisturbed. Landscaped areas adjacent to Redlands Boulevard and Encelia Avenue will sheet flow to the respective streets.

Per the geotechnical investigation (provided in Appendix 3) by Southern California Geotechnical, hydro-collapsible soils at the site were encountered; therefore, infiltration type BMPs are not recommended. Instead, the project proposes to utilize an onsite bioretention facility to meet water quality standards for the DCV.

Offsite Improvements
Street improvements will also be provided on Eucalyptus Avenue, Redlands Boulevard and Encelia Avenue. The DCV for these streets will be mitigated using additional bioretention facilities proposed within the right-of-way.

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

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
Perris Valley Storm Drain	None	N/A	Not classified as a RARE waterbody.
San Jacinto River, Reach 3	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Canyon Lake (aka San Jacinto River, Reach 2)	Nutrients	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
San Jacinto River, Reach 1	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Lake Elsinore	DDT (Dichlorodiphenyltrichloroethane), Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs (Polychlorinated biphenyls), Toxicity	MUN, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Temescal Creek, Reach 6	None	MUN, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 5	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD, RARE	23 miles
Temescal Creek, Reach 4	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD, RARE	29 miles
Temescal Creek, Reach 3 (aka Lee Lake)	None	MUN, AGR, IND, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 2	None	MUN, AGR, IND, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 1	None	MUN, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Santa Ana River, Reach 3	Copper, Indicator Bacteria, Lead	MUN, AGR, GWR, REC1, REC2, WARM, WILD, RARE, SPWN	46 miles
The Prado Basin Management Zone	pH	MUN, REC1, REC2, WARM, WILD, RARE	46 miles
Santa Ana River, Reach 2	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD, RARE	51 miles
Santa Ana River, Reach 1	None	MUN, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Tidal Prism of Santa Ana River and Newport Slough	Indicator Bacteria	MUN, REC1, REC2, COMM, WILD, RARE, MAR	77 miles
Pacific Ocean Near shore Zone	None	MUN, IND, NAV, REC1, REC2, COMM, WILD, RARE, SPWN, MAR, SHEL	77 miles
Pacific Ocean Offshore Zone	None	MUN, IND, NAV, REC1, REC2, COMM, WILD, RARE, SPWN, MAR	78 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)* City of Moreno Valley Grading Permit	☒ Y	☐ N
Other *(please list in the space below as required)* City of Moreno Valley Building Permit	☒ 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)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

- *Existing drainage patterns generally flow from north to south towards the existing channel along Redlands Boulevard located south of Encelia Avenue. Proposed condition drainage patterns mimic pre-development conditions. A proposed extension of the public storm drain in Redlands Boulevard will pick up flows from the project site and discharge to the abovementioned existing channel along Redlands Boulevard.*

Did you identify and protect existing vegetation? If so, how? If not, why?

- *Not applicable, there are no sensitive areas.*
- *Ground surface cover consists of exposed soils with sparse to moderate amounts of native weed and grass growth.*

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

- *Per the geotechnical report, infiltration is not recommended at the project site due to the presence of hydro-collapsible soils. However, the project site will utilize a bioretention facilities to treat the DCV.*

Did you identify and minimize impervious area? If so, how? If not, why?

- *Impervious area on the site has been minimized to City standards.*
- *Due to the nature of the project site (large trucks), substitution of pavement for landscaping is not feasible. The project does not propose overflow parking where substitution of pavement for*

landscaping would be optimal. Landscaping has been provided wherever applicable and to the maximum extent practicable.

- *The entire Design Capture Volume (DCV) is handled by the bioretention facilities. Permeable pavement was not considered due to presence of hydro-collapsible soils.*

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

- *Roof runoff is directed to the proposed bioretention facilities for treatment.*
- *The site is not on a hillside.*
- *All stormwater runoff will be piped or sheet flow towards their respective BMPs.*

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	Area (Acres)	DMA Type
A1	Concrete or Asphalt	285,318	6.55	Type D
A2	Ornamental Landscaping	13,068	0.30	Type D
B1	Roofs/Conc/Asphalt	925,650	21.25	Type D
B2	Ornamental Landscaping	30,492	0.70	Type D
C1	Roofs/Conc/Asphalt	914,760	21.00	Type D
C2	Ornamental Landscaping	26,136	0.60	Type D
D1	Roofs/Conc/Asphalt	749,232	17.20	Type D
D2	Ornamental Landscaping	21,780	0.50	Type D
E2	Ornamental Landscaping	67,518	1.55	Type A
F3	Natural (B Soil)	121,968	2.80	Type A
G1	Concrete or Asphalt	84,506	1.94	Type D
G2	Ornamental Landscaping	8,712	0.20	Type D
H1	Concrete or Asphalt	16,988	0.39	Type D
H2	Ornamental Landscaping	2,178	0.05	Type D
I1	Concrete or Asphalt	66,647	1.53	Type D
I2	Ornamental Landscaping	2,178	0.05	Type D
J1	Concrete or Asphalt	30,928	0.71	Type D
J2	Ornamental Landscaping	2,178	0.05	Type D
K1	Concrete or Asphalt	102,366	2.35	Type D
K2	Ornamental Landscaping	13,068	0.30	Type D

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
E2	67,518	California Native Vegetation	Drip Irrigation
F3	121,968	Natural (B Soil)	N/A

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	Required Retention Depth (inches) [D]
N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$[D] = [B] + \frac{[B]\cdot[C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
A1	Bioretention - BIO "A"
A2	Bioretention - BIO "A"
B1	Bioretention - BIO "B"
B2	Bioretention - BIO "B"
C1	Bioretention - BIO "C"
C2	Bioretention - BIO "C"
D1	Bioretention - BIO "D"
D2	Bioretention - BIO "D"
G1	Bioretention - BIO "G"
G2	Bioretention - BIO "G"
H1	Bioretention - BIO "H"
H2	Bioretention - BIO "H"
I1	Bioretention - BIO "I"
I2	Bioretention - BIO "I"
J1	Bioretention - BIO "J"
J2	Bioretention - BIO "J"
K1	Bioretention - BIO "K"
K2	Bioretention - BIO "K"

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

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

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: The entire project is affected by hydro-collapsible soils.		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?		X
If Yes, list affected DMAs:		
…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 identifies other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		
…have areas of known soil or groundwater contamination (unless with written authorization from the Regional Board Executive Officer)		X
If yes, list affected DMAs:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐ The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 3.65

Type of Landscaping (Conservation Design or Active Turf): Conservation 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: 66.00

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: 1.32

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: 87.1

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)
87.1	3.65

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: 1,540

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: 66.00

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: 150

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: 9,900

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)
9,900	1,540

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N/A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: N/A

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: N/A

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: N/A

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
N/A	N/A

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				Alternative Compliance
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
A1	☐	☐	☒	☐	☐
A2	☐	☐	☒	☐	☐
B1	☐	☐	☒	☐	☐
B2	☐	☐	☒	☐	☐
C1	☐	☐	☒	☐	☐
C2	☐	☐	☒	☐	☐
D1	☐	☐	☒	☐	☐
D2	☐	☐	☒	☐	☐
G1	☐	☐	☒	☐	☐
G2	☐	☐	☒	☐	☐
H1	☐	☐	☒	☐	☐
H2	☐	☐	☒	☐	☐
I1	☐	☐	☒	☐	☐
I2	☐	☐	☒	☐	☐
J1	☐	☐	☒	☐	☐
J2	☐	☐	☒	☐	☐
K1	☐	☐	☒	☐	☐
K2	☐	☐	☒	☐	☐

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.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.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	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	[A]		[B]	[C]	[A] x [C]			
A1	285,318	Concrete or Asphalt	*1.00*	*0.89*	*254,503.7*	*0.68*	*14421.9*	*23,436*
A2	13,068	Ornamental Landscaping	*0.10*	*0.11*	*1,443.5*	*0.68*	*81.8*	
B1	925,650	Roofs/Conc/Asphalt	*1.00*	*0.89*	*825,679.8*	*0.68*	*46788.5*	*52,627*
B2	30,492	Ornamental Landscaping	*0.10*	*0.11*	*3,368.1*	*0.68*	*190.9*	
C1	914,760	Roofs/Conc/Asphalt	*1.00*	*0.89*	*815,965.9*	*0.68*	*46238.1*	*48,028*
C2	26,136	Ornamental Landscaping	*0.10*	*0.11*	*2,886.9*	*0.68*	*163.6*	
D1	749,232	Roofs/Conc/Asphalt	*1.00*	*0.89*	*668,314.9*	*0.68*	*37871.2*	*38,142*
D2	21,780	Ornamental Landscaping	*0.10*	*0.11*	*2,405.8*	*0.68*	*136.3*	
G1	84,506	Concrete or Asphalt	*1.00*	*0.89*	*75,379.7*	*0.68*	*4271.5*	*4,470*
G2	8,712	Ornamental Landscaping	*0.10*	*0.11*	*962.3*	*0.68*	*54.5*	
H1	16,988	Concrete or Asphalt	*1.00*	*0.89*	*15,153.7*	*0.68*	*858.7*	*1,219*
H2	2,178	Ornamental Landscaping	*0.10*	*0.11*	*240.6*	*0.68*	*13.6*	
I1	66,647	Concrete or Asphalt	*1.00*	*0.89*	*59,448.9*	*0.68*	*3368.8*	*3,771*
I2	2,178	Ornamental Landscaping	*0.10*	*0.11*	*240.6*	*0.68*	*13.6*	
J1	30,928	Concrete or Asphalt	*1.00*	*0.89*	*27,587.4*	*0.68*	*1563.3*	*1,626*
J2	2,178	Ornamental Landscaping	*0.10*	*0.11*	*240.6*	*0.68*	*13.6*	
K1	102,366	Concrete or Asphalt	*1.00*	*0.89*	*91,310.5*	*0.68*	*5174.3*	*5,283*
K2	13,068	Ornamental Landscaping	*0.10*	*0.11*	*1,443.5*	*0.68*	*81.8*	
	3,296,185				*2,846,576*	0.68	161,306.0	*178,602*

[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 (PCBs)	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 Imp Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor				
	[A]		[B]	[C]	[A] x [C]				
N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*Design Storm Depth (in)*	*Minimum Design Capture Volume (cubic feet)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A	N/A	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	TBD	TBD	TBD
Volume (Cubic Feet)	TBD	TBD	TBD

[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.

To meet HCOC requirements, the mitigation volume must be achieved by using LID and hydromodification mitigation BMPs. The mitigation volume required is approximately XXX ac-ft (X.XX ac-ft – [X.XX x X.XX ac-ft] – X.XXX ac-ft). In addition to the X.XXX ac-ft already being provided to meet the DCV, the bioretention will also store the mitigation volume of X.XXX ac-ft. As a result, HCOCs will be addressed by the proposed bioretention. Since the mitigation volume has been met, it is physically impossible for the project to avoid increasing the time of concentration and reducing peak runoff by more than five percent of pre-development conditions.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

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
A. On-site storm drain inlets	• Mark all inlets with the words "Only Rain Down the Storm Drain" or similar.	• Maintain and periodically repaint or replace inlet markings annually. • Provide stormwater pollution prevention information to new site owners, lessees, or operators upon occupancy and annually thereafter. • See CASQA fact sheet SC-44 for "Drainage System Maintenance," included in Appendix of this document. • Include the following lease agreements: "Tenant shall not allow anyone to discharge anything to storm drain or to store or deposit materials so as to create a potential discharge to storm drains."

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
B. Interior floor drains and elevator shaft sump pumps	• Interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	• Inspect and maintain drains semi-annually to prevent blockages and overflow.
D2. Landscape / Outdoor Pesticide Use	• Landscape plans will 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. • Pest-resistant plans will be used adjacent to hardscape. • The landscape plans will consider plants appropriate to the site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	• Maintain landscaping only using minimum pesticides, when needed. • See Appendix 10 for "Landscape and Gardening" brochure by RCFlood. • Provide Integrated Pest Management (IPM) information to new owners, lessees and operators upon occupancy and annually thereafter. IPM is an effective and environmentally sensitive approach to pest management.
G. Refuse Areas	• Site refuse will be handled by contractor on a weekly basis. • Signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	• A minimum of two receptacles will be provided and locate dindoors. Receptacles are to be inspected daily and repairs or replacements to leaky receptacles will be completed immediately. Receptacles are to remain covered with not in use. Dumping of liquid or hazardous wastes is prohibited. A "no hazardous materials" sign will be posted. Spills will be cleaned immediately upon discovery. Spill control materials will be available onsite. See Appendix 10 for CASQA fact sheet SC-34 for "Waste Handling and Disposal."
H. Industrial processes	• All process activities to be performed indoors. No processes to drain to exterior or to storm drain system.	• See Appendix 10 for CASQA fact sheet SC-10 for "Non-Stormwater Discharges"
M. Loading Docks	• Spills will be cleaned up immediately and disposed of properly.	• Move loaded and unloaded items indoors as soon as possible. • See Appendix 10 for CASQA fact sheet SC-30 for "Outdoor Loading and Unloading"
O. Drainage Sumps	• Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.	
P. Plazas, sidewalks, and parking lots	•	Sweep plazas, sidewalks, and parking lots monthly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	Latitude	Longitude
A	On-site storm drain inlets	WQMP Site Map	---	---
B	Interior floor drains and elevator shaft sump pumps	N/A	---	---
D2	Landscape / Outdoor Pesticide Use	On-site Landscape Improvement Plans	---	---
G	Refuse Areas	WQMP Site Map	---	---
H	Industrial processes	WQMP Site Map (indoors, if any)	---	---
M	Loading Docks	WQMP Site Map	---	---
P	Plazas, sidewalks, and parking lots	N/A	---	---
BIO "A"	Bioretention	WQMP Site Map	33.932200	-117.164260
BIO "B"	Bioretention	WQMP Site Map	33.932342	-117.162286
BIO "C"	Bioretention	WQMP Site Map	33.932289	-117.160151
BIO "D"	Bioretention	WQMP Site Map	33.932227	-117.157887
BIO "G"	Bioretention	WQMP Site Map	33.935440	-117.160854
BIO "H"	Bioretention	WQMP Site Map	33.935485	-117.158532
BIO "I"	Bioretention	WQMP Site Map	33.934929	-117.156888
BIO "J"	Bioretention	WQMP Site Map	33.932776	-117.156816
BIO "K"	Bioretention	WQMP Site Map	33.931988	-117.158930

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee 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: City of Moreno Valley:

STORMWATER TREATMENT DEVICE AND CONTROL MEASURE ACCESS AND MAINTENANCE COVENANT

Hillwood Investments
901 Via Piemonte, Suite 175
Ontario, CA 91764
Phone: (909) 382-0033
Contact: John Grace

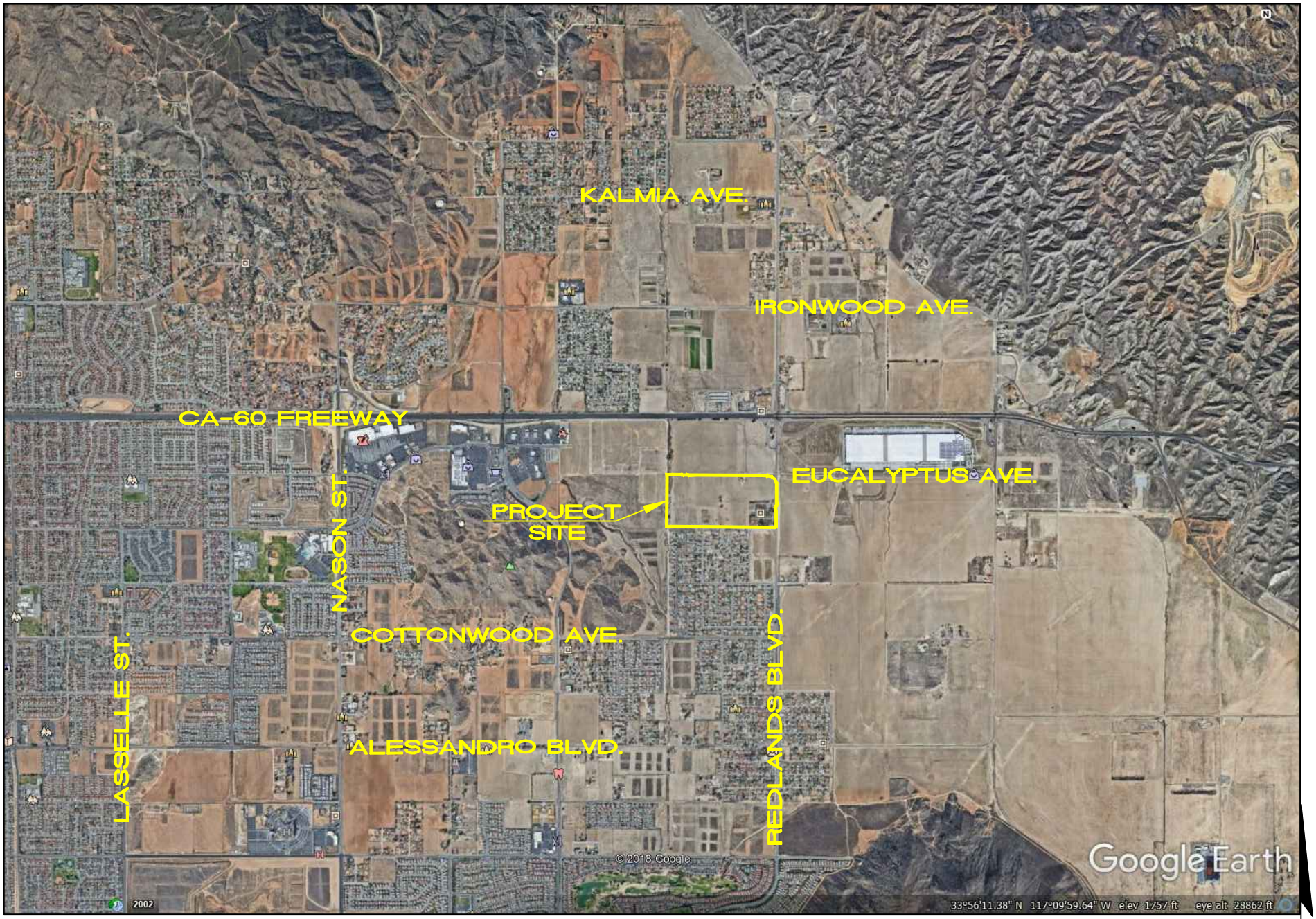
Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map



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"VICINITY MAP"

FOR

EUCALYPTUS AVE. AND REDLANDS BLVD.

N

NOT TO SCALE

Last Update:11/6/19
O:\3800-3899\3828\3828VICMAP.dwg

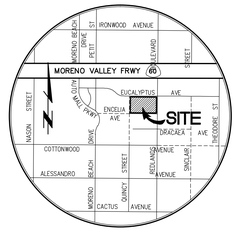
"RECEIVING WATERS MAP"

FOR

EUCALYPTUS AVE. AND REDLANDS BLVD.

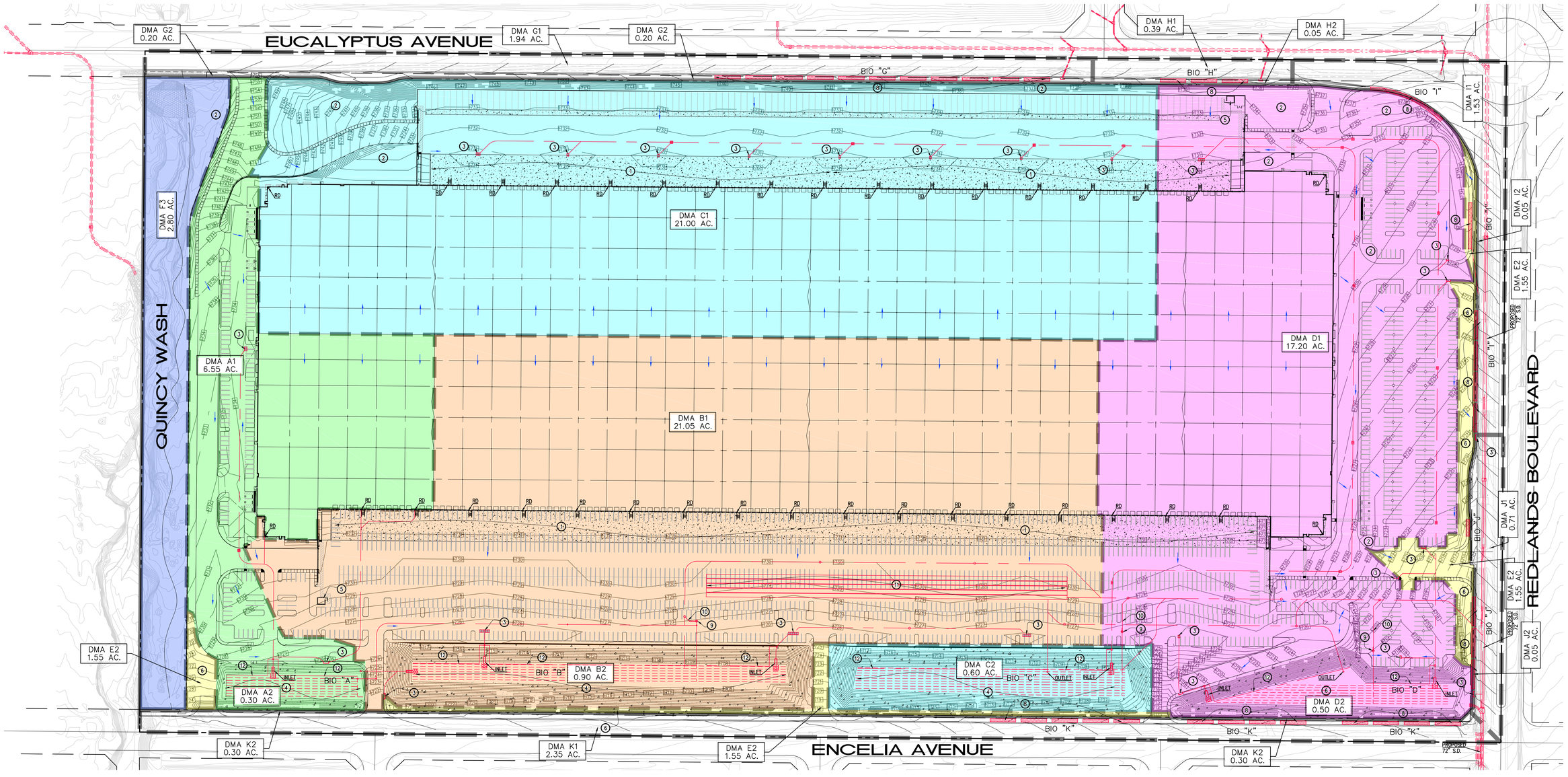
FLOW

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173



VICINITY MAP

N.T.S.



BMP SD-13:

SAMPLE STENCIL TO BE USED NEAR GRATE AND CURB OPENING INLETS

SAMPLE CATCH BASIN STENCIL

LEGEND

1. ABOVEGROUND TRUCK DOCK
2. LANDSCAPE/OUTDOOR PESTICIDE USE
3. STORM DRAIN SYSTEM SIGNS "ONLY RAIN DOWN THE STORM DRAIN"
4. BIORETENTION
5. SD-32: TRASH ENCLOSURES
6. SELF-TREATING AREAS
7. ENERGY DISSIPATOR
8. STREET BMP – BIORETENTION
9. SUMP PUMP
10. FORCE MAIN
11. UNDERGROUND DETENTION FOR 100-YEAR STORM
12. SPREADER PIPE

NOTE:

RD ROOF DRAIN
BOUNDARY
SUBAREAS
FLOW LINE

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	Area (Acres)	DMA Type
A1	Concrete or Asphalt	285,318	6.55	Type D
A2	Ornamental Landscaping	13,068	0.30	Type D
B1	Roofs/Conc/Asphalt	916,938	21.05	Type D
B2	Ornamental Landscaping	39,204	0.90	Type D
C1	Roofs/Conc/Asphalt	914,760	21.00	Type D
C2	Ornamental Landscaping	26,136	0.60	Type D
D1	Roofs/Conc/Asphalt	749,232	17.20	Type D
D2	Ornamental Landscaping	21,780	0.50	Type D
E2	Ornamental Landscaping	67,518	1.55	Type A
F3	Natural (B Soil)	121,968	2.80	Type A
G1	Concrete or Asphalt	84,506	1.94	Type D
G2	Ornamental Landscaping	8,712	0.20	Type D
H1	Concrete or Asphalt	16,988	0.39	Type D
H2	Ornamental Landscaping	2,178	0.05	Type D
I1	Concrete or Asphalt	66,647	1.53	Type D
I2	Ornamental Landscaping	2,178	0.05	Type D
J1	Concrete or Asphalt	30,928	0.71	Type D
J2	Ornamental Landscaping	2,178	0.05	Type D
K1	Concrete or Asphalt	102,366	2.35	Type D
K2	Ornamental Landscaping	13,068	0.30	Type D

0 40 80 160 240

SCALE: 1"=80'

Last Update: 3/16/20
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CITY OF MORENO VALLEY

PUBLIC WORKS DEPARTMENT

WQMP SITE MAP

MORENO VALLEY TRADE CENTER OPTION 2-E COMMERCE/FULFILLMENT CENTER SITE PLAN

EUCALYPTUS AVE. AND REDLANDS BLVD.

PREPARED FOR:

HILLWOOD INVESTMENTS
901 VIA PIEMONTE, STE 175
ONTARIO, CA 91764
PHONE: (909) 382-0033

PREPARED BY:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

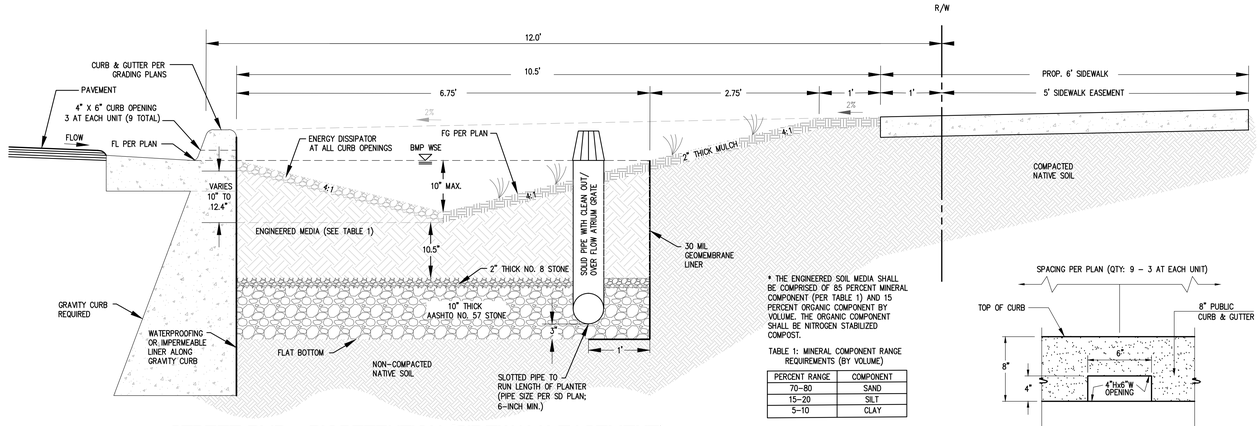
Designed by _____ Date _____
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____

Approved by _____ Date _____

Public Works Director _____ R.C.E. _____

Sheet 1 of 2 Sheets

3828/1 OF 2 SHEET

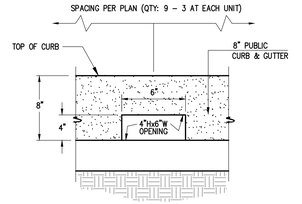


* THE ENGINEERED SOIL MEDIA SHALL BE COMPRISED OF 85 PERCENT MINERAL COMPONENT (PER TABLE 1) AND 15 PERCENT ORGANIC COMPONENT BY VOLUME. THE ORGANIC COMPONENT SHALL BE NITROGEN STABILIZED COMPOST.

TABLE 1: MINERAL COMPONENT RANGE REQUIREMENTS (BY VOLUME)

PERCENT RANGE	COMPONENT
70-80	SAND
15-20	SILT
5-10	CLAY

STREET BMP - BIORETENTION (SIDEWALK EASEMENT)
EUCALYPTUS AVE., REDLANDS BLVD., AND ENCELIA AVE.
N.T.S.



ELEVATION
N.T.S.

4" X 6" CURB OPENING
N.T.S.

ONSITE - BIORETENTION
N.T.S.

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PERCENT RANGE	COMPONENT
70-80	SAND
15-20	SILT
5-10	CLAY

Last Update: 3/16/20
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

WQMP SITE MAP

MORENO VALLEY TRADE CENTER OPTION 2-E COMMERCE/FULFILLMENT CENTER SITE PLAN

EUCALYPTUS AVE. AND REDLANDS BLVD.

3828/2 OF 2 SHEET

PREPARED FOR:
HILLWOOD INVESTMENTS
901 VIA PIEMONTE, STE 175
ONTARIO, CA 91764
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Designed by _____ Date _____
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____

Approved by _____ Date _____
Public Works Director _____ R.C.E. _____

Sheet 2 of 2 Sheets

Appendix 2: Construction Plans

Grading and Drainage Plans

CONCEPTUAL GRADING PLAN
MORENO VALLEY TRADE CENTER

LEGAL DESCRIPTION:

Real property in the City of Moreno Valley, County of Riverside, State of California, described as follows:

PARCEL 1: APN 488-340-005-0

THE NORTH 350' OF LOT 8 IN BLOCK 54 OF MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11, PAGE(S) 10, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAN BERNARDINO COUNTY.

EXCEPTING THEREFROM THE SOUTH 175' OF SAID NORTH 350'.

PARCEL 2: APN 488-340-007-2

THE SOUTH 175 FEET OF THE NORTH 350 FEET OF LOT 8 IN BLOCK 54, AS SHOWN BY MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE NORTH 72 FEET OF THE EAST 275 FEET OF SAID LAND;

ALSO EXCEPTING THEREFROM THAT PORTION INCLUDED IN REDLANDS BOULEVARD.

PARCEL 3: APN 488-340-006-1

THE NORTH 72 FEET OF THE EAST 275 FEET OF THE SOUTH 175 FEET OF THE NORTH 350 FEET OF LOT 8 IN BLOCK 54, AS SHOWN BY MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THAT PORTION INCLUDED WITHIN REDLANDS BOULEVARD.

PARCEL 4: APN 488-340-008-3

LOT 8 IN BLOCK 54, AS SHOWN BY MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE NORTH 350 FEET OF SAID LAND;

ALSO EXCEPTING THEREFROM THAT PORTION INCLUDED IN REDLANDS BOULEVARD.

PARCEL 5: APN 488-340-009-4

LOT 7 IN BLOCK 54 OF MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, AS SHOWN BY MAP RECORDED IN BOOK 11, PAGE 10, OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA.

PARCEL 6: APNS 488-340-002-7, 488-340-010-4 AND 488-340-011-5

LOTS 5, 5 AND 6 IN BLOCK 54 OF MAP NO. 1, BEAR VALLEY AND ALLESANDRO DEVELOPMENT COMPANY, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11, PAGE 10 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAN BERNARDINO COUNTY RECORDS.

PARCEL 7: APN 488-340-012-6

LOT 4 IN BLOCK 54 OF MAP NO. 1 OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY, AS SHOWN BY MAP ON FILE IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA
TOGETHER WITH THOSE PORTIONS OF FIR AVENUE AND QUINCY STREET IN SAID BLOCK LYING WEST OF THE EAST LINE AND NORTH OF THE SOUTH LINE (BOTH PROLONGATED) OF SAID LOT 4.

PARCEL 8: APNS 488-340-003-8 AND 488-340-004-9

LOTS 1 AND 2, IN BLOCK 54 IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP NO. 1 OF THE BEAR VALLEY AND ALESSANDRO DEVELOPMENT COMPANY RECORDED IN BOOK 11, PAGE 10 OF MAPS, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA.

PROJECT INFORMATION:

1. PROJECT ADDRESS: TBD
2. PROPOSED USE: I (INDUSTRIAL)
3. EXISTING ZONING: "BP" (BUSINESS PARK)
   "R2" (RESIDENTIAL 2)
   "RA2" (RESIDENTIAL AGRICULTURE 2 DISTRICT)

SITE ACREAGE

GROSS= 3,121,285 SQ. FT.
= 71.65 ACRES

PROJECT ADDRESS

PROJECT ADDRESS: 12891 REDLANDS BOULEVARD (PARCEL 1);
12925 REDLANDS BOULEVARD (PARCEL 2);
12915 REDLANDS BOULEVARD (PARCEL 3);
12981 REDLANDS BOULEVARD (PARCEL 4);
28855 FIR AVENUE (PARCEL 8);
VACANT LAND (PARCELS 5, 6, AND 7),
FONTANA, CA

SUBJECT PROPERTY:

ASSESSOR'S PARCEL NUMBER: 488-340-005 (PARCEL 1);
488-340-007 (PARCEL 2);
488-340-006 (PARCEL 3);
488-340-008 (PARCEL 4);
488-340-009 (PARCEL 5);
488-340-002 (PARCEL 6);
488-340-010 (PARCEL 6);
488-340-011 (PARCEL 6);
488-340-012 (PARCEL 7);
488-340-003 (PARCEL 8);
488-340-004 (PARCEL 8)

FLOOD ZONE DESIGNATION

ZONE: X SHADED
PANEL NO.: 065074 0770G
DATE: AUGUST 28, 2008

AND

ZONE: X UNSHADED
PANEL NO.: 060245 0770G
DATE: AUGUST 28, 2008

UNDERGROUND UTILITIES

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD.
PERRIS, CA 92585
(909) 928-6111

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD.
PERRIS, CA 92585
(909) 928-6111

ELECTRICAL
MVU – MORENO VALLEY
14325 FREDERICK ST. STE. 9
MORENO VALLEY CA. 92553
951-413-3500

GAS
SOUTHERN CALIFORNIA GAS COMPANY–REDLANDS.
1981 W. LUGONIA AV. PO. BOX 3003
REDLANDS, CA 92374
(562) 699-7411

TELEPHONE
VERIZON– REDLANDS
1980 ORANGE TREE LN. STE. 100
REDLANDS, CA 92374
909-748-6640

SCHOOL DISTRICT
MORENO VALLEY UNIFIED SCHOOL DISTRICT
25634 ALESSANDRO BLVD.
MORENO VALLEY, CA 92553
951-571-7500

PLANNING CASE NO'S.

PEN 19-0191 (GENERAL PLAN AMENDMENT FROM R2 TO BP)
PEN 19-0192 (ZONE CHANGE FROM RA2 TO LI)
PER 19-0193 (PLOT PLAN)

OWNER/APPLICANT

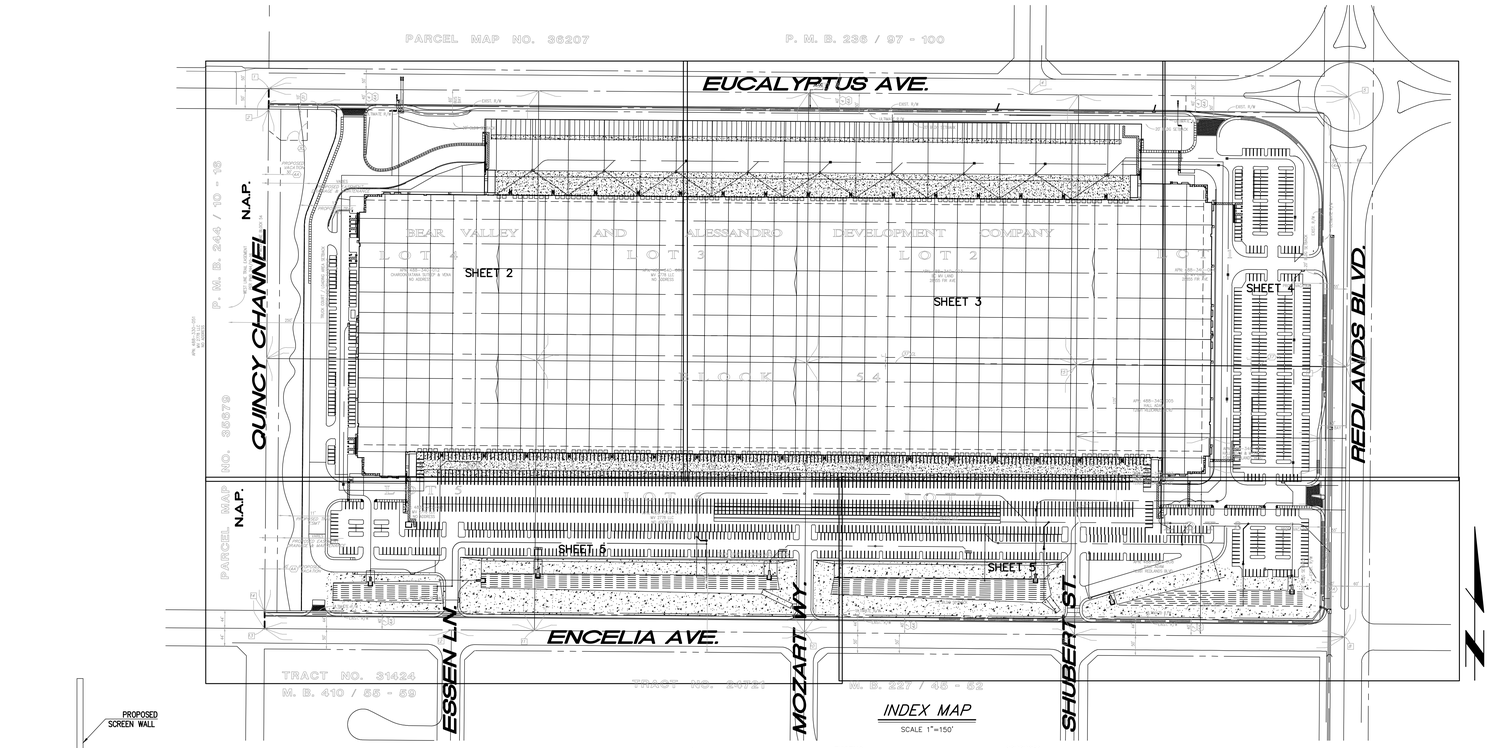
HILLWOOD
901 VIA PASAMONTE, SUITE 175
ONTARIO, CA 91764
PHONE: (909) 382-0033
CONTACT: KATHY HOFFER
EMAIL: KATHY.HOFFER@HILLWOD.COM

ENGINEER

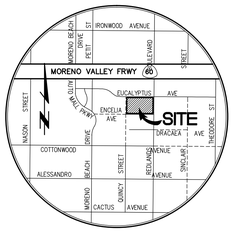
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA. 90638
PHONE: (714 521-4811
CONTACT: REINHARD STENZEL
EMAIL: REINHARD@THIENESENG.COM

TOPHOGRAPHY

THIENES ENGINEERING, INC.
10-10-2019



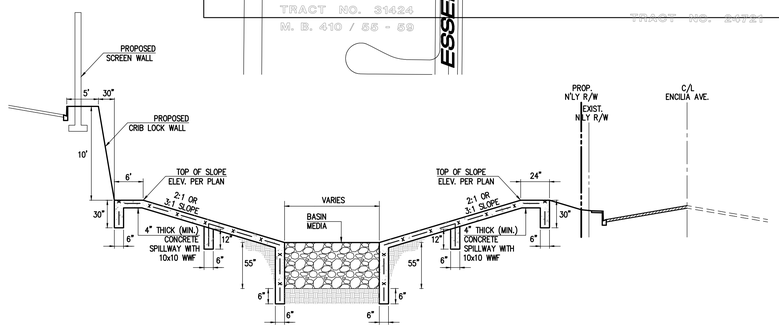
INDEX MAP
SCALE 1"=150'



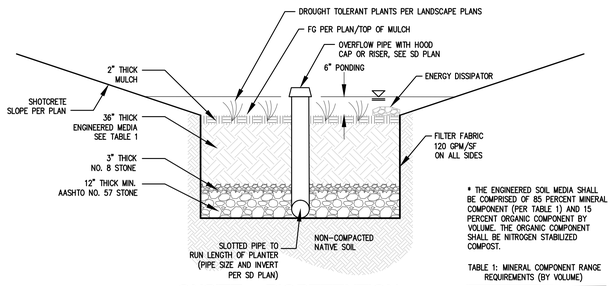
VICINITY MAP
N.T.S.

SHEET INDEX	
1	TITLE SHEET – NOTES, DETAILS, SECTIONS AND CONCEPTUAL UITILITIES
2–5	CONCEPTUAL GRADING PLAN
6–9	CONCEPTUAL UTILITY PLAN
10–13	STORM DRAIN PROFILE

JOB#	3828	TOPO BY OTHERS
K.	SITE AREA:	3,284,601 SF
L.	SUBSIDENCE FACTOR:	0.150
M.	SHRINKAGE FACTOR:	12.00 %
N.	SITE STRIPPING FACTOR:	0.10
O.	OVEREXCAVATION:	286,345 CY
A.	CALCULATED CUT:	410,465 CY
B.	APPROXIMATE FOOTING AND UTILITY SPOILS	20,000 CY
B1.	EXISTING STOCKPILE	
C.	**TOTAL CUT: (A+B+B1)**	**430,465** CY
D.	CALCULATED FILL:	314,500 CY
E.	LIGHT PAVING FILL:	- CY
F.	SUBSIDENCE: (LxK)/27=	18,248 CY
G.	SHRINKAGE: (M/100)C=	51,656 CY
H.	SITE STRIPPING	12,165
I.	OVEREXCAVATION SHRINKAGE	34,361 CY
J.	**TOTAL FILL: (D+E+F+G+H+I)=**	**430,930** CY
K.	**TOTAL (IMPORT) OR EXPORT:**	**(465)** CY



TYPICAL BASIN SECTION
NTS



ONSITE - BIORETENTION
N.T.S.

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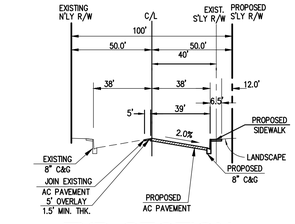
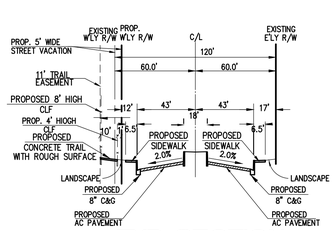
TABLE 1: MINERAL COMPONENT RANGE REQUIREMENTS (BY VOLUME)

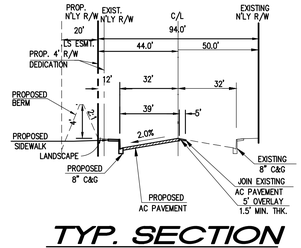
PERCENT RANGE	COMPONENT
70–80	SAND
15–20	SILT
5–10	CLAY



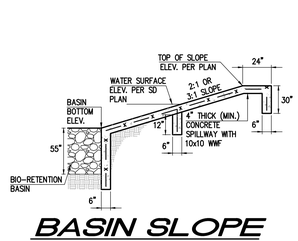
TYP. SECTION
EUCALYPTUS AVENUE.
ARTERIAL
(T.I. = 10)
N.T.S.



TYP. SECTION
REDLANDS BLVD.
DIVIDED ARTERIAL
(T.I. = 10)
N.T.S.



TYP. SECTION
ENCILIA AVE.
MINOR ARTERIAL
(T.I. = 10)



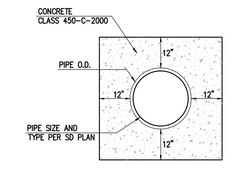
BASIN SLOPE DETAIL
NTS

ABBREVIATIONS:

APN	– ASSESSOR'S PARCEL NUMBER
C/L	– CENTERLINE
C.F.	– CURB FACE
CONC.	– CONCRETE
O.OO	– EXISTING ELEVATION
E.P.	– EDGE OF PAVEMENT
EXIST.	– EXISTING
F.H.	– FIRE HYDRANT
F.G.	– FINISH GRADE
F.S.	– FINISH SURFACE
F.F.	– FINISH FLOOR
F.L.	– FLOW LINE
H.C.	– HANDICAP
M.H.	– MANHOLE
N.G.	– NATURAL GRADE
P.P.	– POWER POLE
R/W	– RIGHT OF WAY
R	– RATE OF GRADE

LEGEND:

- EXIST. FIRE HYDRANT
- EXIST. WATER METER
- EXIST. WATER VALVE
- EXIST. GAS VALVE
- GUY WIRE/DEADMAN
- EXIST. POWER POLE
- EXIST. SIGN
- TREE
- EXIST. MAIL BOX
- EXIST. TELEPHONE MANHOLE
- EXIST. GRADE ELEVATION
- EXIST. EDGE OF A.C. PAVEMENT
- EXIST. CURB AND GUTTER
- EXIST. SANITARY SEWER
- EXIST. GAS LINE
- EXIST. WATER LINE
- EXIST. CONTOUR
- RECIPROCAL ACCESS
- TWO ROWS OF ORANGE TREES
- CONCRETE



SD CULVERT PIPE ENCASEMENT
NTS

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PLOT PLAN PEN 19-0193

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.
OPTION 2

3828/1 OF 13 SHEET

PREPARED FOR:
HILLWOOD
901 VIA PASAMONTE, SUITE 175
ONTARIO, CA 91764
PHONE: (909) 382-0033
FAX: (909) 382-0073

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LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

Designed by _____ Date _____
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____

Approved by _____ Date _____
Public Works Director R.C.E. XXXXX

Sheet 1 of 13 Sheets

EUCALYPTUS AVENUE

N.A.P.

CONCRETE CHANNEL

BEAR VALLEY AND LOT 4

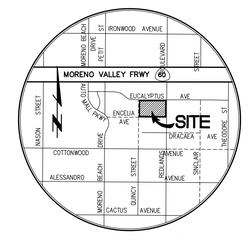
APN: 488-340-012
CHAROONRATANA SUTHER & VENA
NO ADDRESS

APN: 488-340-002
MV 1778 LLC
NO ADDRESS

1735.51 FF
1734.84 PAD

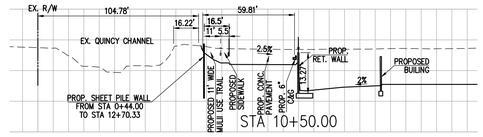
SEE SHEET 3

SEE SHEET 5



VICINITY MAP

N.T.S.



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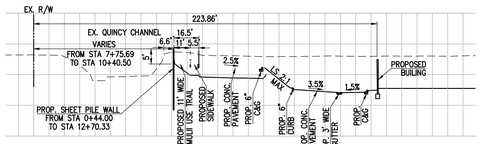

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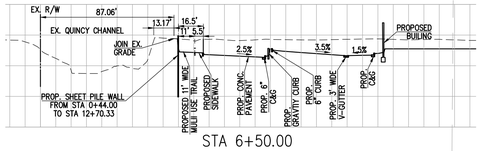

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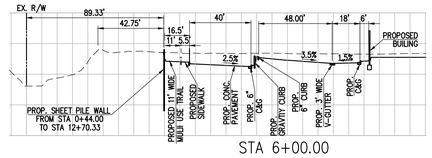

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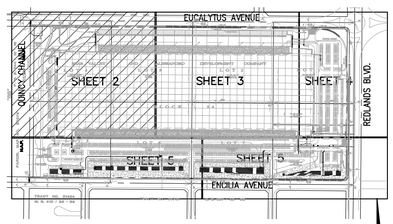

INDEX MAP

SCALE 1"=500'

0 20 40 80 120

SCALE: 1"=40'

Last Update: 2/11/20
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.
OPTION 2

PREPARED FOR:
HILLWOOD
901 VIA PASAMONTE, SUITE 175
ONTARIO, CA 91764
PHONE: (909) 382-0033
FAX: (909) 382-0073

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH:(714)521-4811 FAX:(714)521-4173

Designed by _____ Date _____
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Approved by _____ Date _____
Public Works Director _____ R.C.E. XXXXX
Sheet 2 of 13 Sheets

3828/2 OF 13 SHEET

EUCALYPTUS AVENUE

SEE SHEET 2

SEE SHEET 4

SEE SHEET 5

1735.51 FF
1734.84 PAD

APN: 488-340-003
BC MV LAND
28355 FIR AVE

ALESSANDRO DEVELOPMENT COMPANY

BLOCK 54

LOT 2

LOT 3

LOT 4

LOT 5

PROPOSED CONCRETE PAVEMENT

PROPOSED STORM DRAIN
SEE SHEET 6 TO 13

PROPOSED UG FIRE LINE
PER UG FIRE PROTECTION PLANS

PROPOSED 6" BLDG SEWER LINE
PER PLUMBING PLANS

PROPOSED RETAINING WALL W/ GUARD RAIL

CONSTRUCT RETAINING WALL W/ GUARD RAIL

PROPOSED SCREEN WALL

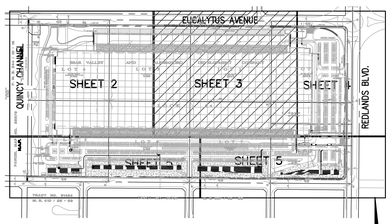
PROPOSED GATE

PUMP ROOM

(7) 6-7/8" RISERS

0 25 50 100 150
SCALE: 1"=50'

0 20 40 80 120
SCALE: 1"=40'



INDEX MAP
SCALE 1"=500'

Last Update: 2/11/20
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.
OPTION 2

3828/3 OF 13 SHEET

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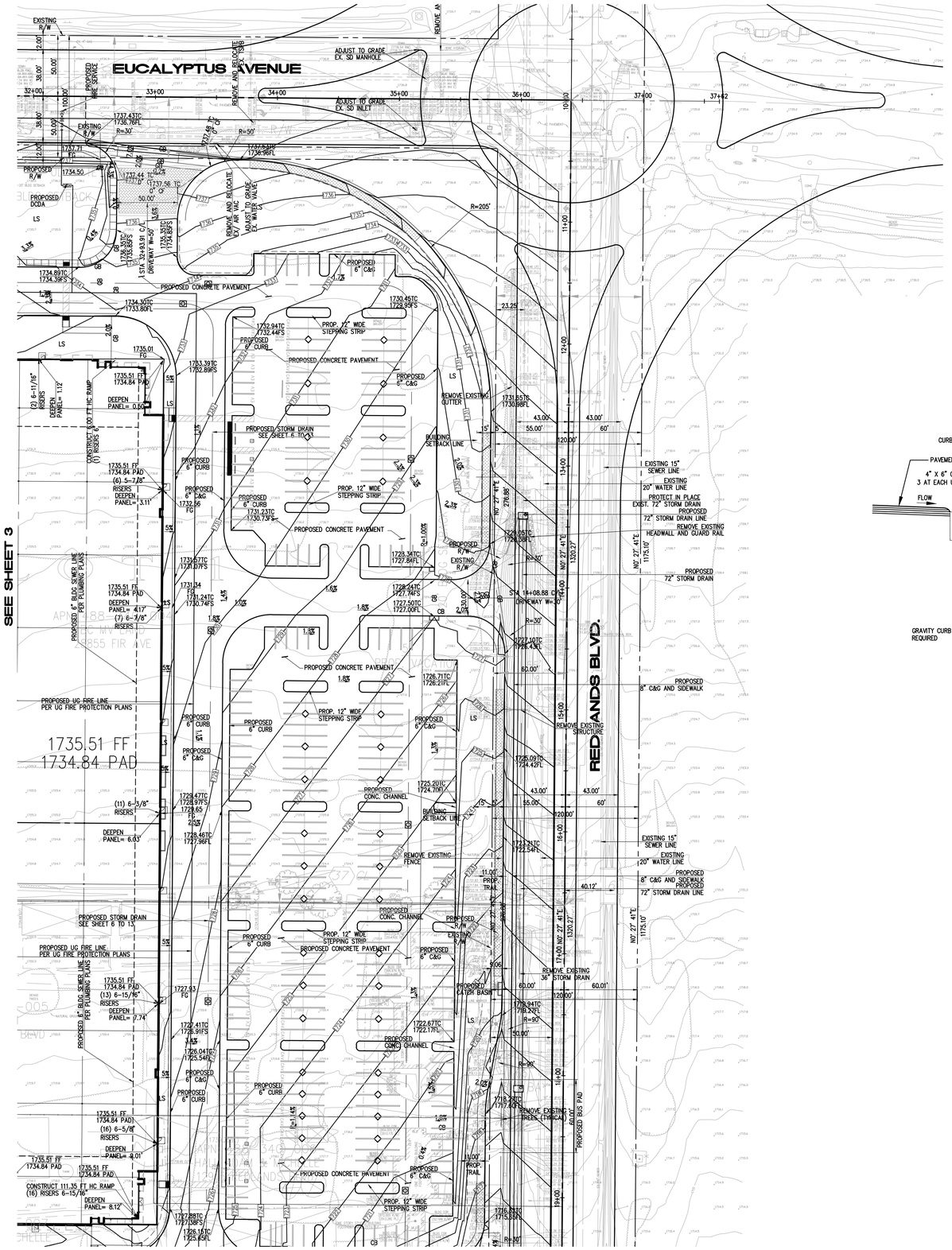
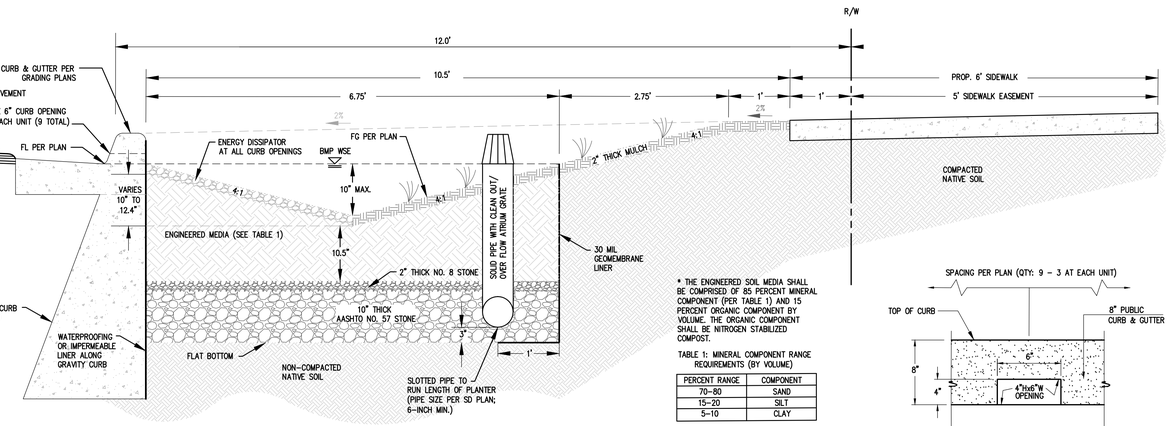
Sheet 3 of 13 Sheets



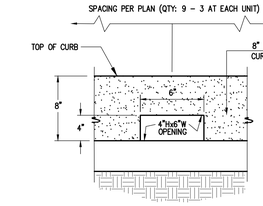


* THE ENGINEERED SOIL MEDIA SHALL BE COMPRISED OF 85 PERCENT MINERAL COMPONENT (PER TABLE 1) AND 15 PERCENT ORGANIC COMPONENT BY VOLUME. THE ORGANIC COMPONENT SHALL BE NITROGEN STABILIZED COMPOST.

TABLE 1: MINERAL COMPONENT RANGE REQUIREMENTS (BY VOLUME)

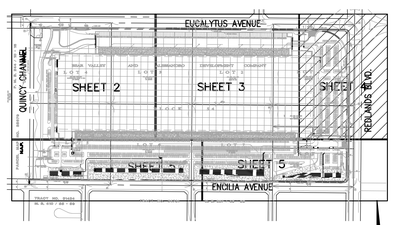
PERCENT RANGE	COMPONENT
70–80	SAND
15–20	SILT
5–10	CLAY

STREET BMP - BIORETENTION (SIDEWALK EASEMENT)
EUCALYPTUS AVE., REDLANDS BLVD., AND ENCELIA AVE.
N.T.S.



ELEVATION
N.T.S.

4" X 6" CURB OPENING
N.T.S.



INDEX MAP
SCALE 1"=500'

0 20 40 80 120
SCALE: 1"=40'

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Sheet 4 of 13 Sheets

3828/4 OF 13 SHEET

SEE SHEET 2

SEE SHEET 3

SEE BELOW LEFT

SEE SHEET 3

SEE SHEET 4

SEE ABOVE RIGHT

N.A.P.

QUINCY CHANNEL

ENCILIA AVENUE

REDLANDS BLVD.

PROPOSED STORM DRAIN SEE SHEET 6 TO 13

PROPOSED CONCRETE PAVEMENT

PROPOSED 6" CURB

PROPOSED 6" C&G

PROPOSED TRASH ENCLOSURE

PROP. 12" WIDE STEPPING STRIP

PROPOSED CRIB LOCK WALL H=10' MAX

CONSTRUCT GRAVITY CURB H=3.91'

PROPOSED 3" V-GUTTER

PROPOSED BERM

BUILDING SETBACK LINE

EXISTING R/W

PROPOSED R/W

REMOVE EXISTING GUARD RAIL

REMOVE EXISTING HEADWALL

REMOVE AND RELOCATE EX. 12" PP#12222509CK

REMOVE EXISTING 42" STORM DRAIN

REMOVE EXISTING WATER METER

REMOVE EXISTING WATE PIPE

EX. BUILDING TO BE DEMOLISH

PROPOSED SHEET PILE WALL

STA 3+00.00 PROPOSED SHEET PILE WALL

STA 0+44.00 BEGIN PROPOSED SHEET PILE WALL

STA 194+75.85 C/L DRIVEWAY W=54'

BASIN #1
TOP ELEVATION = 1722.00 FG
BOTTOM ELEVATION = 1721.00 BOT/TOP OF MULCH
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1720.83
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1717.83
BOTTOM OF ROCK = 1716.58
BOTTOM AREA = 13,020 SF
VOLUME @ 4.5' HIGH = 0.15 ACRE-FEET

BASIN #2
TOP ELEVATION = 1717.20 FG
BOTTOM ELEVATION = 1707.23 BOT/TOP OF MULCH
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1707.06
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1704.06
BOTTOM OF ROCK = 1702.81
BOTTOM AREA = 28,237 SF
VOLUME @ 4.5' HIGH = 10.47 ACRE-FEET

BASIN #3
TOP ELEVATION = 1711.73 FG
BOTTOM ELEVATION = 1706.23 BOT/TOP OF MULCH
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1706.06
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1703.06
BOTTOM OF ROCK = 1701.81
BOTTOM AREA = 26,682 SF
VOLUME @ 4.5' HIGH = 3.62 ACRE-FEET

BASIN #4
TOP ELEVATION = 1706.80 FG
BOTTOM ELEVATION = 1705.80 BOT/TOP OF MULCH
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1705.63
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1702.63
BOTTOM OF ROCK = 1701.38
BOTTOM AREA = 21,191 SF
VOLUME @ 4.5' HIGH = 0.24 ACRE-FEET

PROPOSED STORM DRAIN SEE SHEET 6 TO 13

PROPOSED CONCRETE PAVEMENT

PROPOSED 6" CURB

PROPOSED 6" C&G

PROPOSED TRASH ENCLOSURE

PROP. 12" WIDE STEPPING STRIP

PROPOSED CRIB LOCK WALL H=10' MAX

CONSTRUCT GRAVITY CURB H=3.91'

PROPOSED 3" V-GUTTER

PROPOSED BERM

BUILDING SETBACK LINE

EXISTING R/W

PROPOSED R/W

REMOVE EXISTING GUARD RAIL

REMOVE EXISTING HEADWALL

REMOVE AND RELOCATE EX. 12" PP#12222509CK

REMOVE EXISTING 42" STORM DRAIN

REMOVE EXISTING WATER METER

REMOVE EXISTING WATE PIPE

EX. BUILDING TO BE DEMOLISH

PROPOSED SHEET PILE WALL

STA 3+00.00 PROPOSED SHEET PILE WALL

STA 0+44.00 BEGIN PROPOSED SHEET PILE WALL

STA 194+75.85 C/L DRIVEWAY W=54'

BASIN #1
TOP ELEVATION = 1722.00 FG
BOTTOM ELEVATION = 1721.00 BOT/TOP OF MULCH
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BASIN #3
TOP ELEVATION = 1711.73 FG
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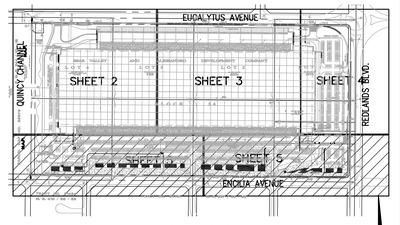
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1706.06
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1703.06
BOTTOM OF ROCK = 1701.81
BOTTOM AREA = 26,682 SF
VOLUME @ 4.5' HIGH = 3.62 ACRE-FEET

BASIN #4
TOP ELEVATION = 1706.80 FG
BOTTOM ELEVATION = 1705.80 BOT/TOP OF MULCH
BOTTOM OF MULCH/TOP OF ENGINEERED MEDIA = 1705.63
BOTTOM OF ENGINEERED MEDIA/TOP OF ROCK = 1702.63
BOTTOM OF ROCK = 1701.38
BOTTOM AREA = 21,191 SF
VOLUME @ 4.5' HIGH = 0.24 ACRE-FEET



INDEX MAP

SCALE 1"=500'

0 20 40 80 120

SCALE: 1"=40'

Last Update: 2/11/20
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

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MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.
OPTION 2

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Public Works Director _____ R.C.E. XXXXX

Sheet 5 of 13 Sheets

XXXX/5 OF 13 SHEET

EUCALYPTUS AVENUE

EUCALYPTUS AVENUE

PROPOSED FIRE SERVICE CONNECTION

EXISTING 24" WATER LINE

PROPOSED 2" DOM METER

PROPOSED 2" IRRI METER (PRIVATE)

PROPOSED 2" IRRI METER (PUBLIC)

PROPOSED 10" DCDA

PROPOSED FDC

PROPOSED 3" WATER LINE

N.A.P.

STREET

QUINCY

N.A.P.

N.A.P.

24" HDPE

LINE C

24" HDPE

CATCH BASIN SPPWC 305-3

24" HDPE

2-PROP CB SPPWC 305-3

CATCH BASIN SPPWC 305-3

PROPOSED FIRE LINE PER UG FIRE LINE

1735.51 FF
1734.84 PAD

1732.84 INV/6"S

PROPOSED 6" BUILDING SEWER W/ CLEAN OUT @ 100' O.C.

PROPOSED FIRE LINE PER UG FIRE LINE

2-PROP CB PER SPPWC 305-3

LINE A

24" HDPE

PROPOSED FIRE LINE PER UG FIRE LINE

1735.51 FF
1734.84 PAD

1726.86 INV/6"S

LINE A

PROPOSED 6" BUILDING SEWER W/ CLEAN OUT @ 100' O.C.

ROOF DRAIN CONNECTION

ROOF DRAIN CONNECTION

12" HDPE

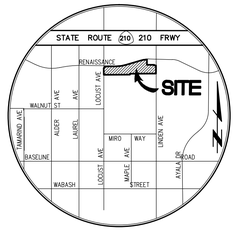
12" HDPE

PROPOSED FIRE LINE PER UG FIRE LINE

ROOF DRAIN CONNECTION

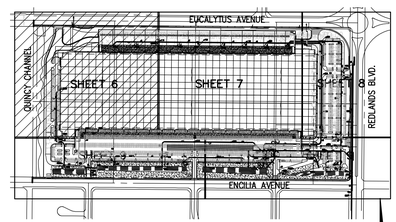
SEE SHEET 7

SEE SHEET 9



VICINITY MAP

N.T.S.



INDEX MAP

SCALE 1"=500'

0 20 40 80 120

SCALE: 1"=40'

Last Update:10/23/19
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CITY OF MORENO VALLEY

PUBLIC WORKS DEPARTMENT

CONCEPTUAL UTILITY PLAN

MORENO VALLEY TRADE CENTER

EUCALYPTUS AVE AND REDLANDS BLVD.

3828/6 OF 13 SHEET

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Public Works Director _____ R.C.E. XXXXX

Sheet 6 of 13 Sheets

EUCALYPTUS

EUCALYPTUS AVENUE

38.00

PROPOSED CATCH BASIN

PROPOSED CATCH BASIN

PROP MH SPPWC 321-2

30" HDPE

PROP MH SPPWC 321-2

LINE F

24" HDPE

CATCH BASIN SPPWC 305-3

36" HDPE

PROP MH SPPWC 321-2

PROP MH SPPWC 320-2

LINE E

LINE

PROPOSED FIRE LINE PER UG FIRE LINE

S=0.0100

S=0.0100

PROPOSED 6" BUILDING SEWER W/ CLEAN OUT @ 100' O.C.

SEE SHEET 6

SEE SHEET 8

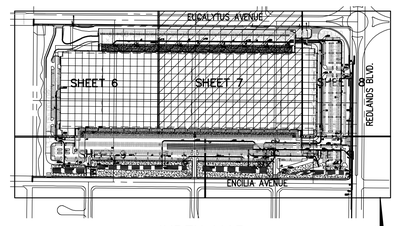
PROPOSED 6" BUILDING SEWER W/ CLEAN OUT @ 100' O.C.

PROPOSED FIRE LINE PER UG FIRE LINE

SEE SHEET 9

0 20 40 80 120

SCALE: 1"=40'



INDEX MAP

SCALE 1"=500'

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CITY OF MORENO VALLEY

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EUCALYPTUS AVE AND REDLANDS BLVD.

3828/7 OF 13 SHEET

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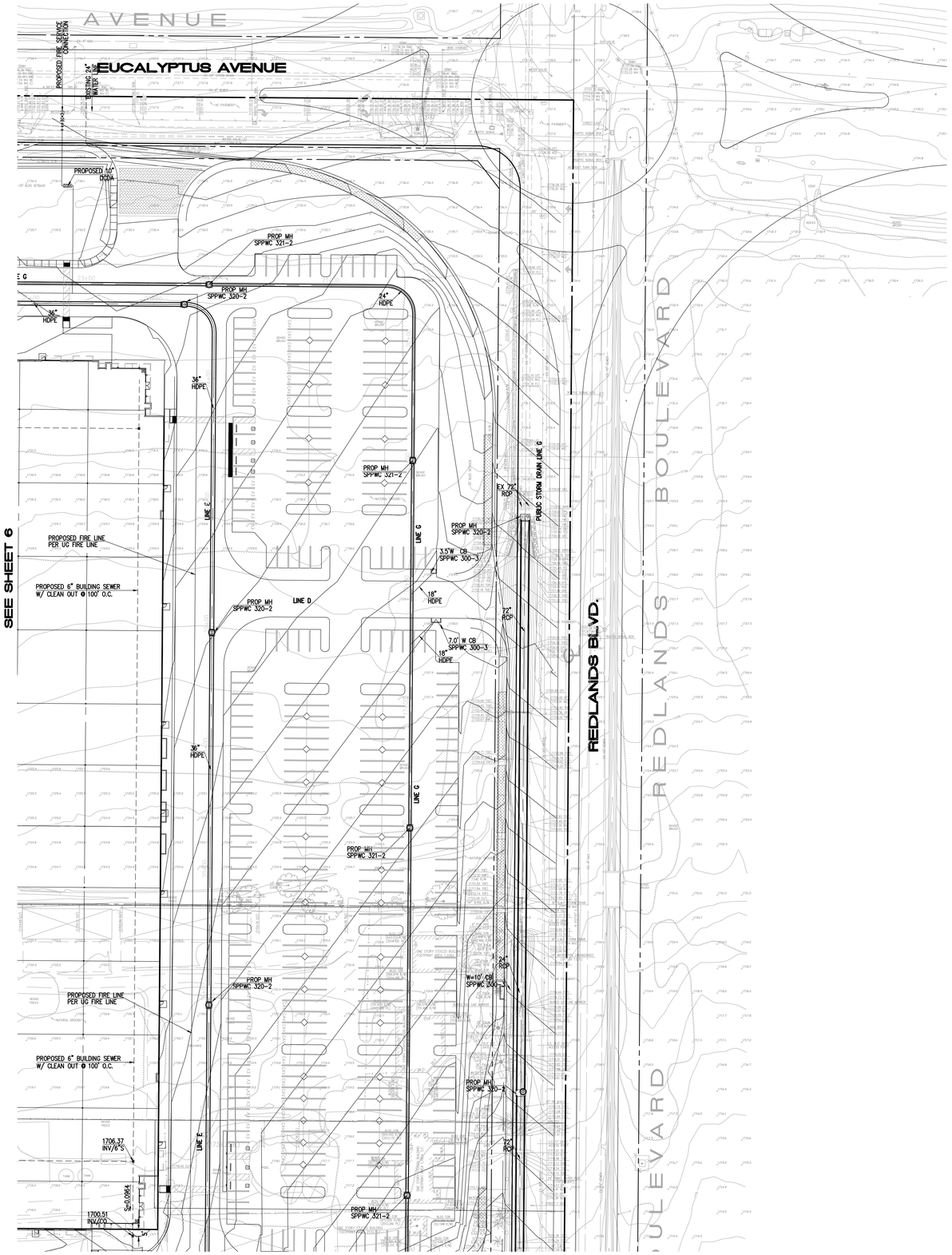

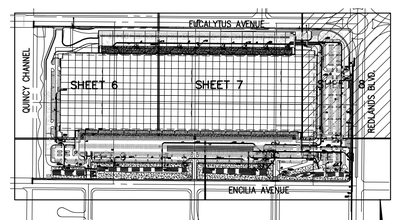

INDEX MAP

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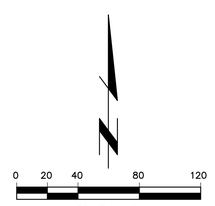

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3828/8 OF 13 SHEET

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Sheet 8 of 13 Sheets

SEE SHEET 6

SEE SHEET 7

SEE BELOW LEFT

SEE ABOVE RIGHT

SEE SHEET 7

SEE SHEET 8

QUINCY CHANNEL

QUINCY STREET

N.A.P.

REDLANDS BLVD.

ENCILIA AVENUE

ENCELIA AVENUE

PROP MH SPPWC 321-2

LINE A

LINE H

LINE J

LINE C

LINE D

LINE E

LINE L

LINE B

LINE G

LAT A1

LAT B2

LAT B1

12" HDPE

18" HDPE

24" HDPE

30" HDPE

36" HDPE

30" NYLOPLAST DIVERSION MANHOLE

30" NYLOPLAST MANHOLE

W=7' CB SPPWC 300-3

5-PROP. CB SPPWC 305-3

PROP HEADWALL

24" PERFORATED SPREADER PIPE

PUMP

FORCEMAIN

STA 20+29.78 END PIPE 1708.23 INV.

STA 17+88.36 HGL 1705.07

PROP MH SPPWC 322-2

PROP MH SPPWC 320-2

PROP MH SPPWC 32X-2

PROP CB SPPWC 305-3

PROPOSED 6" SEWER LATERAL

PROPOSED 72" SD

7.0' W CB SPPWC 300-3

W=10' CB SPPWC 306-3

24" RCP

78" RCP

1700.06 INV/6"S

1708.88 INV/48"SD

1699.90 INV/8"CO

1693.06 INV/6"CO

1709.91 INV/8"SD

1688.45 INV/6"S

1698.06 INV/6"CO

1698.96 INV/40"SD

1697.06 INV/CO

1697.33 INV/6"S

1696.30 INV/6"S

(1696.51) INV

(1695.29) INV

(1695.43) INV/8"S

(1694.07) INV

(1696.40) INV/SD

S=0.0036

EXISTING SEWER LINE

PROP HEADWALL

GRADE DITCH TO DRAIN

0 20 40 80 120

SCALE: 1"=40'

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EUCALYPTUS AVENUE

QUINCY CHANNEL

REDLANDS BLVD.

ENCILIA AVENUE

SHEET 6

SHEET 7

SHEET 8

INDEX MAP

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PUBLIC WORKS DEPARTMENT

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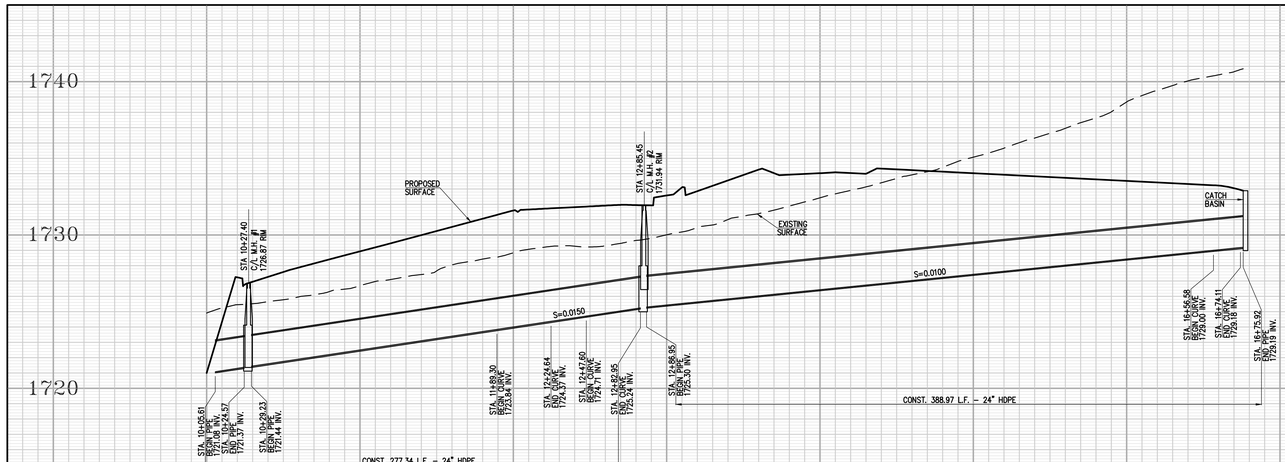
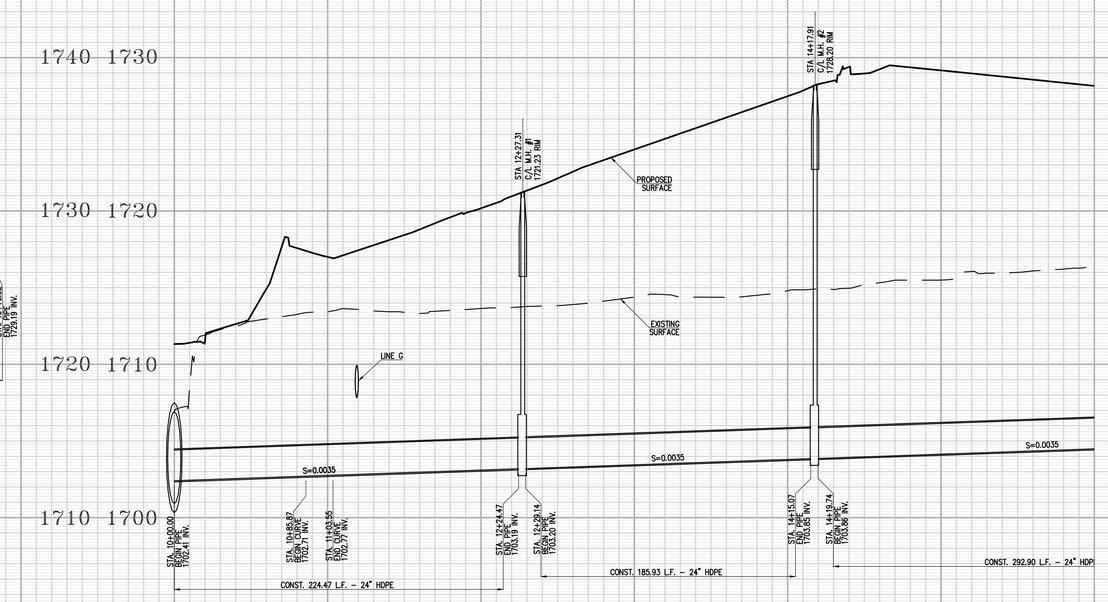
	Sheet 9 of 13 Sheets	



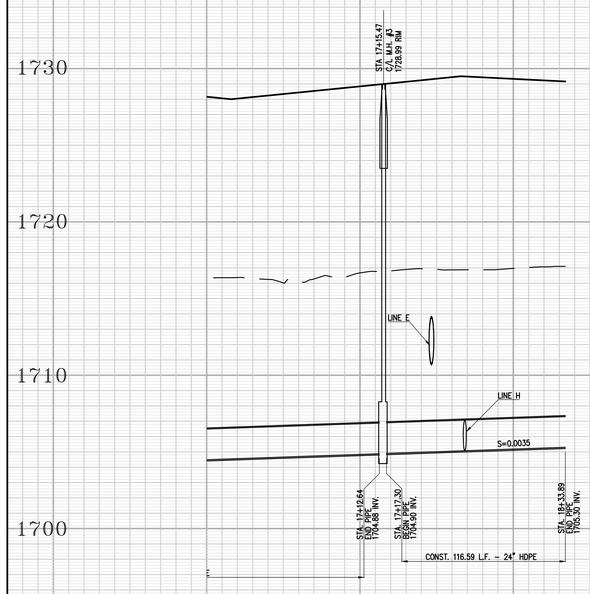
LINE A



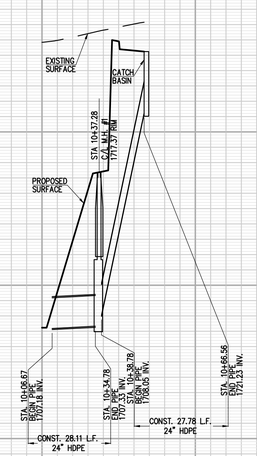
LINE B

*CONTRACTOR TO VERIFY LOCATION AND INVERT ELEVATIONS OF EXISTING UTILITIES AND DRAINAGE SYSTEMS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

PROFILE SCALE:
HORIZ. - 1" = 40'
VERT. - 1" = 4'



LINE B



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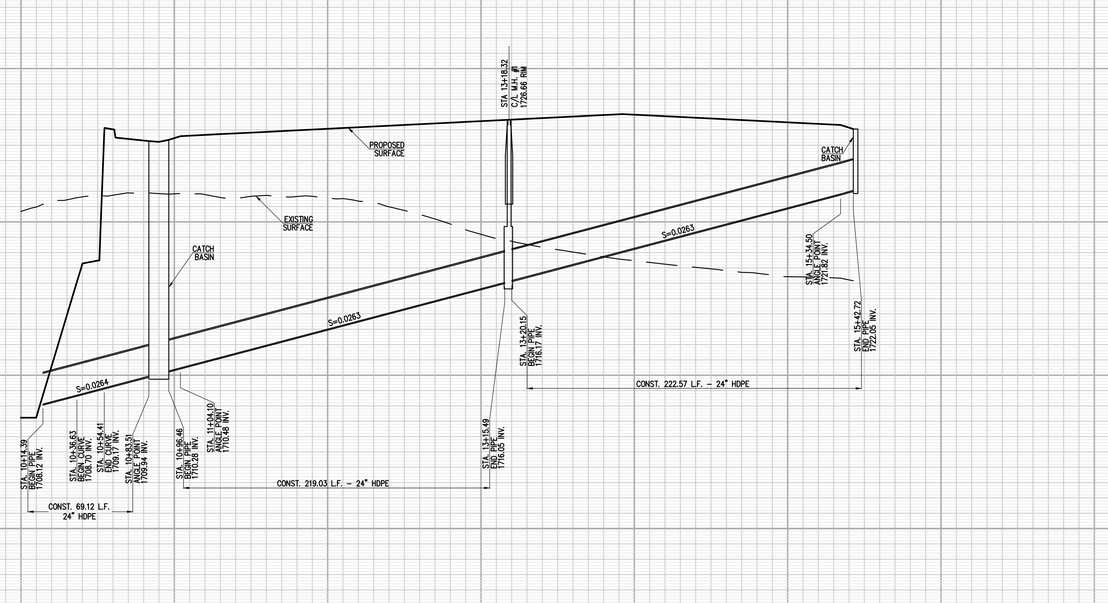

LINE D

*CONTRACTOR TO VERIFY LOCATION AND INVERT ELEVATIONS OF EXISTING UTILITIES AND DRAINAGE SYSTEMS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

PROFILE SCALE:
HORIZ. - 1" = 40'
VERT. - 1" = 4'

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL STORM DRAIN PROFILE
MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.

PREPARED FOR:

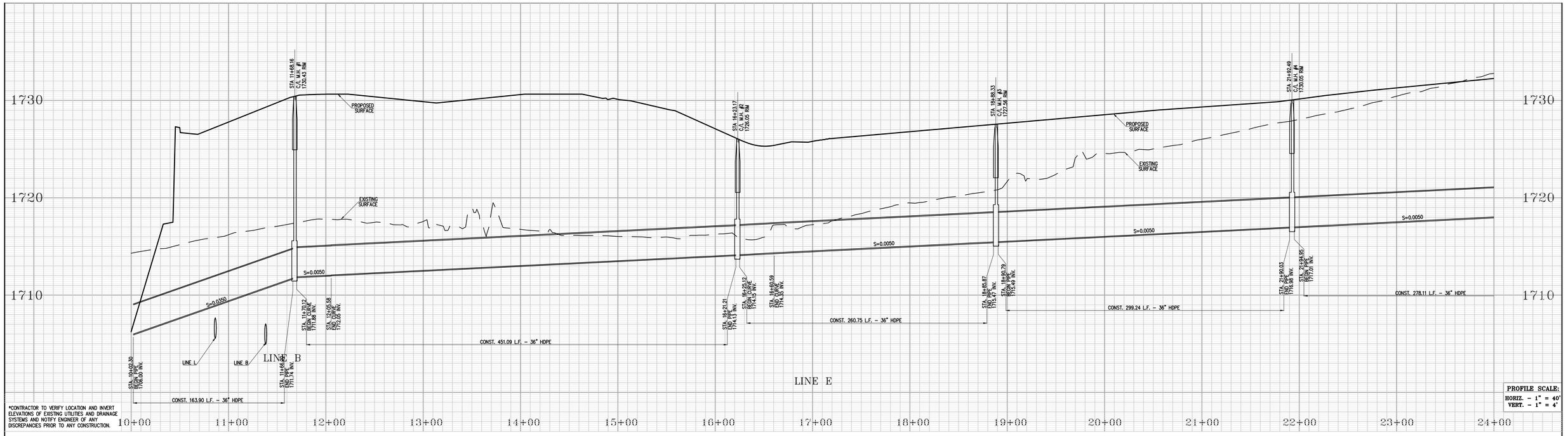
HILLWOOD
901 VIA PASAMONTE, SUITE 175
ONTARIO, CA 91764
PHONE: (909) 382-0033
FAX: (909) 382-0073

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

Designed by _____ Date _____
Checked by _____ Date _____
Approved by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Public Works Director _____ R.C.E. XXXXX

Sheet 10 of 13 Sheets

3828/10 OF 13 SHEET



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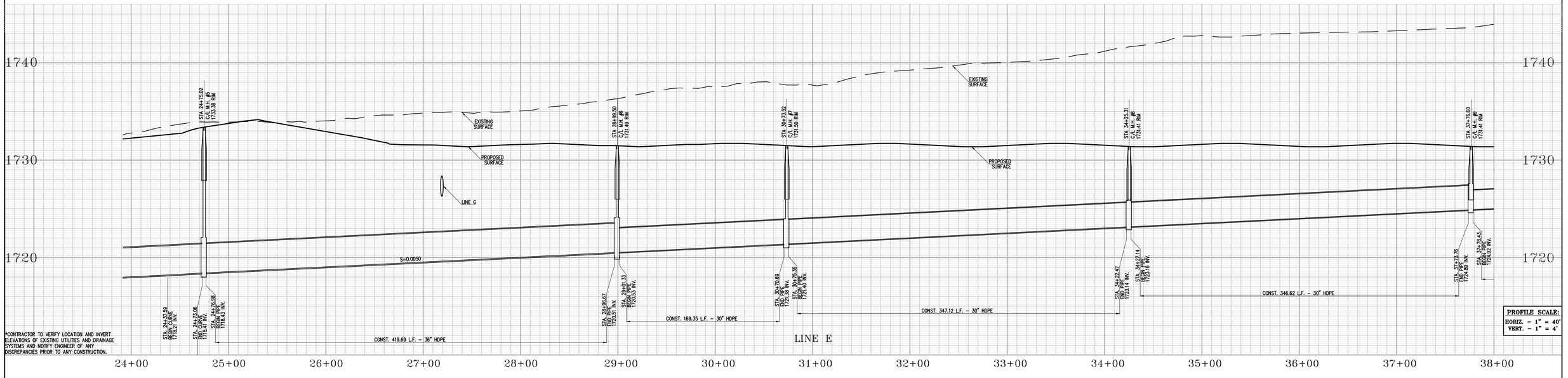

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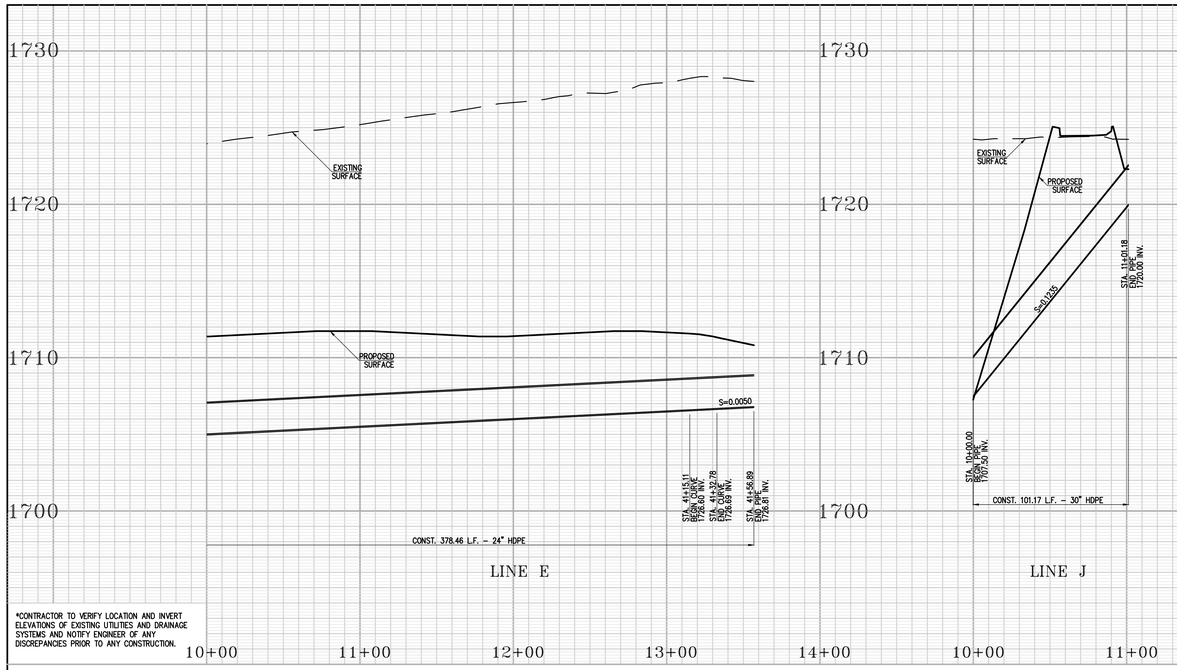

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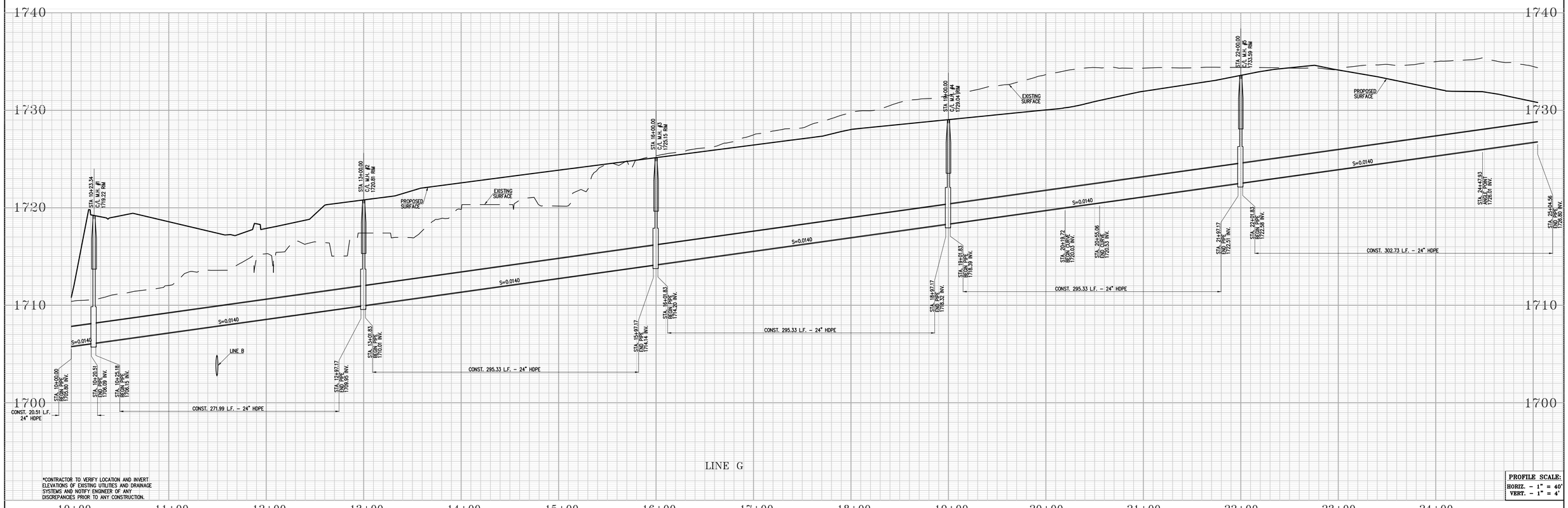

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CONCEPTUAL STORM DRAIN PROFILE
MORENO VALLEY TRADE CENTER
EUCALYPTUS AVE AND REDLANDS BLVD.

3828/12 OF 13 SHEET

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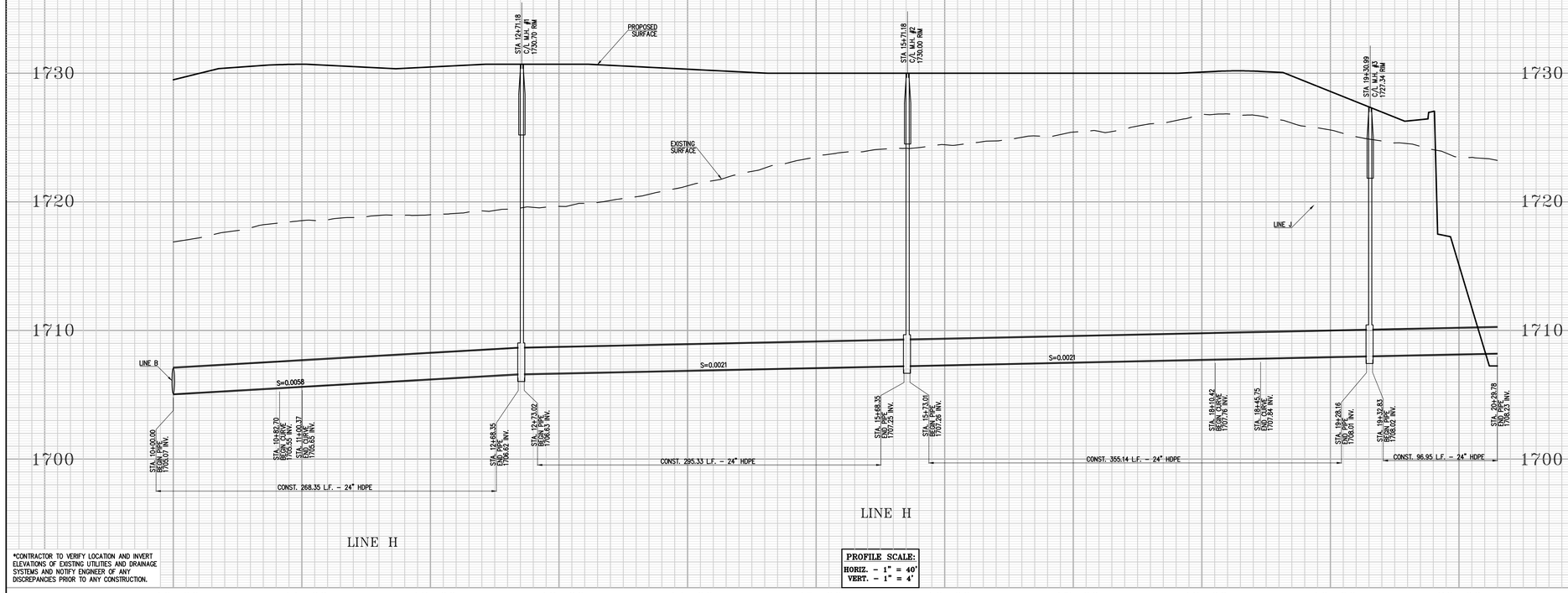

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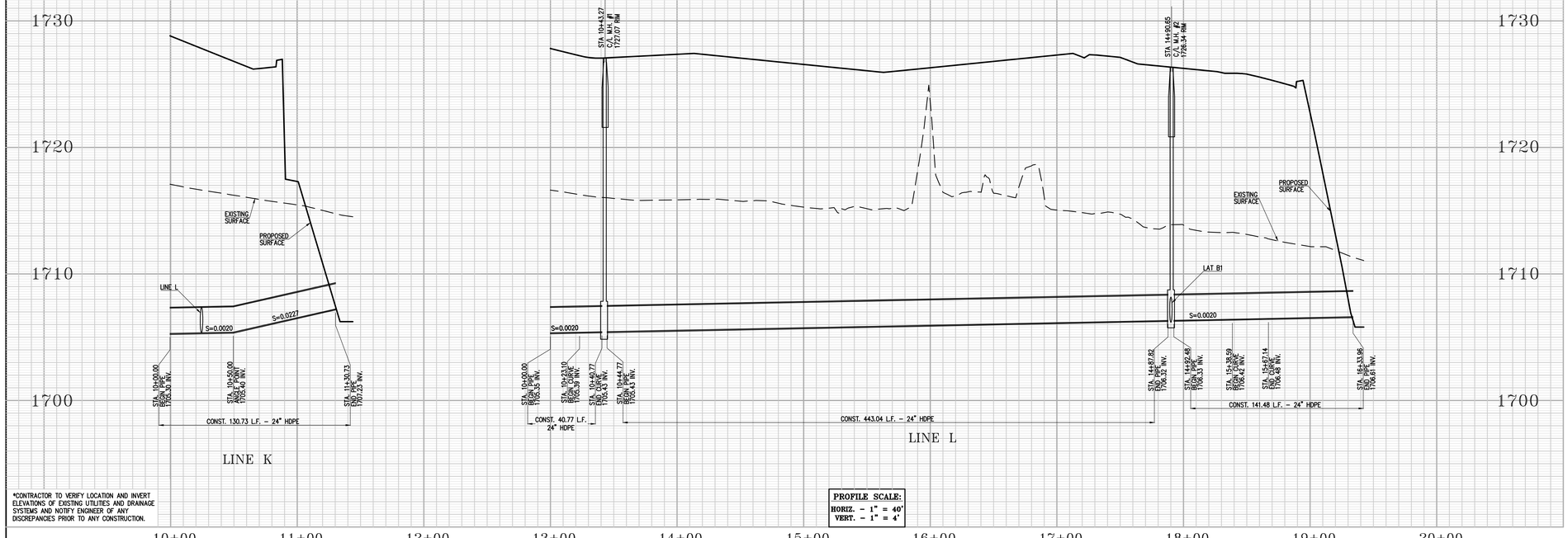

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3828/13 OF13 SHEET

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Public Works Director _____ R.C.E. XXXXX
Sheet 13 of 13 Sheets

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

GEOTECHNICAL INVESTIGATION
PROPOSED COMMERCIAL/INDUSTRIAL BUILDING

SWC Eucalyptus Avenue and Redlands Boulevard
Moreno Valley, California
for
Hillwood

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

November 4, 2019

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Hillwood
901 Via Piemonte, Suite 175
Ontario, California 91764

Attention: Ms. Kathy Hoffer
Vice President

Project No.: **19G210-1**

Subject: **Geotechnical Investigation**
Proposed Moreno Valley Trade Center
SWC Eucalyptus Avenue and Redlands Boulevard
Moreno Valley, California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

REGISTERED PROFESSIONAL ENGINEER
DANIEL W. NIELSEN
No. 77915
CIVIL
STATE OF CALIFORNIA

Daniel W. Nielsen
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT TRAZO
No. 2655
GEOTECHNICAL
STATE OF CALIFORNIA

Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- The subject site is located within a mapped area of moderate liquefaction susceptibility. However, recent and historic ground water level data from wells located within 1,500 feet of the subject site indicate that static groundwater levels are greater than 100± feet below the ground surface.
- The subsurface conditions encountered at this site are not considered to be conducive to liquefaction based on the lack of a static groundwater table within the upper 50± feet below site grades. Therefore, liquefaction is not considered to be a design concern for this project.
- The near-surface soils encountered at the boring locations consist of native alluvium. These soils possess variable strengths, compositions, and densities. The results of laboratory testing indicate that soils present within the upper 6 to 10± feet possess potential for collapse when wetted.
- Remedial grading is recommended to remove the upper portion of the near-surface, collapsible, variable strength, native alluvium and replace these soils as compacted structural fill. The recommended remedial grading will reduce potential differential settlements by replacing collapsible/compressible soils as compacted structural fill.

Site Preparation

- Initial site preparation should include stripping of the existing native grass and weed growth.
- Demolition of the existing structures located within the existing nursery in the southeast portion of the site and any subsurface remnants of former development in the northeastern portion of the site will be necessary in order to facilitate the proposed development at the site. Demolition should include all foundations, floor slabs, utilities and any other subsurface improvements that will not remain in place with the new development.
- The proposed building area should be overexcavated to a depth of at least 6 feet below existing grade and to a depth of 6 feet below proposed building pad subgrade elevation. Within the foundation influence zones, the overexcavation should extend to a depth of at least 3 feet below proposed foundation bearing grade. However, additional overexcavation to depths of up to 10± feet is expected to be necessary in localized areas based on the presence of loose collapsible soils. The overexcavation should extend horizontally at least 5 feet beyond the building and foundation perimeters.
- After the overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be removed. Resulting subgrade should then be scarified to a depth of 12 inches and moisture conditioned to 0 to 4 percent above optimum. The previously excavated soils may then be replaced as compacted structural fill. All structural fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, thoroughly moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least four (4) No. 5 rebars (2 top and 2 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slab

- Conventional Slab-on-Grade, 6 inches thick.
- Modulus of Subgrade Reaction: k = 100 psi/in.
- Minimum slab reinforcement: Not required for geotechnical considerations. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

Pavements

ASPHALT PAVEMENTS (R = 25)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	6
Aggregate Base	7	9	11	12	14
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 25)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	7	8½
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 19P367, dated September 19, 2019. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located at the southwest corner of Eucalyptus Avenue and Redlands Boulevard in Moreno Valley, California. The site is bounded to the north by Eucalyptus Avenue, to the west by a drainage channel, to the south by Encilia Avenue, and to the east by Redlands Boulevard. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 in Appendix A of this report. It should be noted that several of the street names shown on the Site Location Map have changed since the base map was published in 2013, including the streets labeled Fir Street and Eucalyptus Avenue.

The subject site consists of several contiguous rectangular-shaped parcels which total 72.62± acres in size. The majority of the subject site is vacant and undeveloped with the exception of the southeastern parcels which are developed as a nursery. The ground surface cover outside of the nursery consists of moderate to heavy native grass and weed growth with several medium sized trees located within the central portion of the site. The nursery contains several greenhouses, single family residences, concrete driveways, and numerous rows of plants, shrubs, and trees.

As a part of our research we reviewed readily available historical aerials photographs of the subject site from the internet. Aerial photographs taken between 1966 and 1978, inclusive, indicate that the eastern portion of the site was utilized for farming and contained several small structures from 1966 to 1978. Photographs taken in 1996 and later indicate that only a small area in the north central portion of the site and the southeastern corner of the subject site remained developed with several small structures and crops. Between the times of the 2014 and 2016 photographs, the buildings in the north central portion of the subject site were demolished and the crops were removed, leaving the existing nursery in the southeastern corner as the only developed area within the subject site. The western portion of the site was undeveloped in all of the available photographs.

Topographic information for the subject site was obtained from a conceptual grading plan prepared by Thienes Engineering, Inc. The survey indicates that the overall site topography generally slopes from the northwest downward to the southeast at an estimated gradient of around 1.6 percent. The maximum site elevation is 1752± feet mean sea level (msl) located in the northwestern region of the subject site, and the minimum site elevation is 1708± feet msl in the southeast corner of the subject site.

3.2 Proposed Development

Based on the site plan provided to our office, the site will be developed with one warehouse, 1,332,380± ft² in size, located in the central area of the site. Dock-high doors will be constructed along the northern and southern building walls. The building will be surrounded by asphaltic concrete pavements for parking and drive lanes and Portland cement concrete pavements for the

loading dock areas. Several landscape planters and concrete flatwork will be included throughout the site.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 3 to 6 kips per linear foot, respectively.

No significant amounts of below grade construction, such as basements or crawl spaces, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 10 to 15± feet are expected to be necessary to achieve the proposed site grades.

3.3 Previous Study

Prior to the preparation of our report, SCG was provided with the following previous reports for the subject site. Findings and conclusions from the reports are as follows:

> Preliminary Geotechnical Investigation, Proposed Industrial Development, SWC Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, CA, prepared by LOR Geotechnical Group, dated April 8, 2019 (Project No. 23513.1)

The subsurface exploration conducted for this project consisted of excavating five (5) test trenches to a depth of 10± feet below the ground surface and drilling fourteen (14) 8-inch–diameter borings advanced to depths of 26.5 to 51.5± feet below the ground surface.

The subsurface conditions encountered within this investigation generally consisted of fill soils underlain by native alluvial soils. The fill layer was noted to be about 2 feet in thickness on all of the boring logs and consisted of loose silty sand to sandy silt. The alluvium generally consisted of sandy silt to silty sand and included occasional well grade sands. At depths of 25 feet and greater, occasional sandy clay layers were encountered. Four (4) double ring infiltration tests were performed within the site. Infiltration rates ranged from 1.6 to 2.6 inches per hour. Groundwater was not encountered at any of the site excavations. No active or potentially active faults were documented within the subject site. Infiltration of water into the upper 7 to 12 feet was not recommended based on the hydro-collapse potential of the on-site soils.

The laboratory testing program for included several standard geotechnical tests. The results of many of these tests are discussed herein. Grain size analyses tests were performed on collected samples throughout the site at depths ranging from 0 to 3 feet below ground surface. The results of the grain size analysis indicate that the near-surface soils predominantly consist of silty sands and sandy silts. Three (3) direct shear tests were performed on sandy silts and silty sands at depths of 1 to 4 feet below existing subgrade. The reported direct shear test results (ultimate cohesion and internal friction angle, respectively) were: 250 lbs/ft^2 and 28 degrees, 150 lbs/ft^{2}and 29 degrees, and 300 lbs/ft^2 and 27 degrees. Three (3) Modified Proctor tests were performed. The two (2) R-value tests performed at the site indicated R-values of 61 and 6. Three (3) Expansion Index (EI) tests were performed at depths of 1 to 4 feet below ground surface yielded values of 12 & 15 for sandy silts and 0 for a silty sand. Soluble sulfate content testing indicated sulfate concentrations of less than 0 .005 percent by weight.

The report recommends the removal and recompaction of existing on-site soils based on the unsuitability of the existing soils, in their current state, for the support the proposed structures. A compacted fill mat was recommended for construction beneath footings and slabs.

Recommendations for the design and construction of shallow foundations and concrete slabs-on-grade were provided in the report. Foundations were recommended to be designed for a maximum allowable soil bearing pressures ranging from 1,500 to 3,000 lbs/ft^2, depending upon the depth of embedment and footing width.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of seventeen (17) borings (identified as Boring Nos. B-1 through B-17) advanced to depths of 10 to 50± feet below the existing site grades. All of the borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Alluvium

Native alluvium was encountered beneath the ground surface at all of the boring locations, extending to at least the maximum depth explored of 50± feet below existing site grades. The majority of the native alluvial soils encountered at the boring locations consist of loose to medium dense fine sandy silts and silty fine sands with varying clay, medium to coarse sand and fine gravel content. Some loose to medium dense well graded sands and clayey sands were also encountered, as well as medium stiff to hard silty clay, clayey silt, and fine sand clay strata. At depths greater than 30± feet, occasional dense sands, silty sands, and clayey sands were encountered.

Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater is considered to have existed at a depth in excess of 50± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the groundwater depths in this area is the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. The nearest monitoring well in this database is located approximately 1,200 feet northwest of the site. Water level readings within this monitoring well indicate groundwater levels of 196.8± feet (April 2016) below the ground surface. A nearby monitoring well, located approximately 1,500 feet south of the site, provides a historical groundwater level of 104.2± feet (February 1959).

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-8 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

Representative bulk samples have been tested to determine their maximum dry densities and optimum moisture contents. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557, and are presented on Plate C-9 and C-10 in Appendix C of this report. These tests are generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-inch high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a

surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water, and allowed to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansive Potential
B-1 @ 0 to 5 feet	8	Very Low
B-7 @ 0 to 5 feet	16	Very Low
B-11 @ 0to 5 feet	0	Very Low (non-expansive)

Soluble Sulfates

Representative samples of the near-surface soils have been submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-1 @ 0 to 5 feet	0.012	Negligible
B-7 @ 0 to 5 feet	0.023	Negligible
B-11 @ 0 to 5 feet	<0.001	Negligible

Corrosivity Testing

Representative bulk samples of the near-surface soils were submitted to a subcontracted analytical laboratory for determination of electrical resistivity, pH, and chloride concentrations. The resistivity of the soils is a measure of their potential to attack buried metal improvements such as utility lines. The results of the resistivity and pH testing are presented below:

Sample Identification	Resistivity (ohm-cm)	pH	Chlorides (mg/kg)
B-1 @ 0 to 5 feet	1,080	7.4	47
B-7 @ 0 to 5 feet	960	7.8	83
B-11 @ 0 to 5 feet	5,600	7.7	1.5

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structure should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low.

Seismic Design Parameters

The California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2016 edition of the California Building Code (CBC). However, it is also possible that the proposed development may be designed using the 2019 CBC, which will be adopted on January 1, 2020. Therefore, this report provides design parameters for both the 2016 CBC and the 2019 CBC. Other design consultants should verify the version of the code under which the proposed development will be submitted.

The 2016 and 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-10 and ASCE 7-16, upon which the 2016 CBC and 2019 CBC are based, respectively. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plates E-1A (2016 CBC) and E-1B (2019 CBC) in Appendix E of this report. Based on this output, the following parameters may be utilized for the subject site:

2016 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	2.291
Mapped Spectral Acceleration at 1.0 sec Period	S_1	1.046
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	2.291
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	1.568
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.528
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	1.046

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.8.4 applies to the proposed structures at this site. However, the structural engineer should verify that this exception is applicable to the proposed structures.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped MCE_R Acceleration at 0.2 sec Period	S_S	2.195
Mapped MCE_R Acceleration at 1.0 sec Period	S_1	0.886
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	2.195
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	1.506
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.463
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	1.004

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed building at this site

Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Riverside County GIS website indicates that the subject site is located within a zone of moderate liquefaction susceptibility. However, water level data available for wells located near the subject site indicates that the depth to groundwater table is more than 100 feet below the ground surface and groundwater was not encountered at any of the boring locations, which extended to depths of up to 50± feet. Based on the lack of a static groundwater table within the upper 50± feet, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

The subsurface conditions encountered at the boring locations generally consist of variable strength native alluvium. The results of laboratory testing indicate that the near-surface alluvium (within the upper 6 to 10± feet) possesses a potential for moderate collapse when exposed to moisture infiltration as well as consolidation when exposed to load increases in the range of those that will be exerted by the new foundations. Based on these conditions, remedial grading will be necessary within the proposed building area to provide a subgrade suitable for support of the new foundations and floor slab.

Settlement

The recommended remedial grading will remove the potentially compressible/collapsible near-surface native alluvium, and replace these materials as compacted structural fill. The native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant load increases from the foundations of the new structure. Provided that the recommended remedial grading is completed, the post-construction static settlements of the proposed structure are expected to be within tolerable limits.

Expansion

Laboratory testing performed on representative samples of the near-surface soils indicates that these materials possess a very low expansion potential (EI = 0 to 16). Based on these test results, no design considerations related to expansive soils are considered warranted for this project.

Shrinkage/Subsidence

Removal and recompaction of the near-surface native fill soils is estimated to result in an average shrinkage of 6 to 11 percent. It should be noted that the potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.10 feet.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

It is recommended that we be provided with copies of the grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Demolition of the existing structures located in the existing nursery in the southeast portion of the site will be necessary in order to facilitate the construction of the proposed development. Demolition should include all foundations, floor slabs, utilities and any other subsurface improvements that will not remain in place with the new development. Any subsurface remnants of the former structures located in the northern portion of the site should also be demolished. Demolition debris should be disposed of off-site in accordance with any applicable regulations. Alternatively, concrete and asphalt debris may be crushed to a maximum 2-inch particle size, mixed with the on-site soils, and reused as compacted structural fill.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building pad area in order to remove the existing potentially compressible/collapsible native alluvium. It is recommended that the overexcavation extend to a depth of at least 6 feet below existing grade and to a depth of at least 6 feet below proposed grade, whichever is greater. Within the influence zones of the new foundations, the overexcavation should extend to a depth of at least 3 feet below proposed foundation bearing grade. However, we expect that additional overexcavation will be required in localized areas where loose or porous soils are encountered. We expect that localized overexcavation to depths of up to 10 feet below existing site grades may be necessary in some areas.

The overexcavation areas should extend at least 5 feet beyond the building perimeter, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose or otherwise unstable soils that must be removed. Some localized areas of deeper excavation may be required if

undocumented fill materials or loose, porous, overly moist, or low-density native soils are encountered at the base of the overexcavation.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches and moisture conditioned to achieve a moisture content of 0 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The building pad area may then be raised to grade with previously excavated soils or imported, structural fill. All structural fill soils present within the proposed building area should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of proposed retaining and non-retaining site walls should be overexcavated to a depth of at least 3 feet below foundation bearing grade and replaced as compacted structural fill. The overexcavation should also extend to a depth of at least 3 feet below the bottom of any erection pads used to construct tilt-up concrete walls, because erection pads are considered to be part of the foundation system. Any undocumented fill soils should also be removed from the retaining wall areas. In both cases, the overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Parking Areas

Based on economic considerations, overexcavation of the surficial alluvial soils in the new parking areas is not considered warranted, with the exception of areas where lower strength or unstable soils are identified by the geotechnical engineer during grading.

Subgrade preparation in the new parking areas should initially consist of removal of all soils disturbed during stripping operations. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of existing collapsible and compressible alluvium in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

Treatment of Existing Soils: Flatwork Areas

Subgrade preparation in the new flatwork areas should initially consist of removal of all soils disturbed during stripping and demolition operations. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer. All grading and fill placement activities should be completed in accordance with the requirements of the CBC and the grading code of the city of Moreno Valley.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Moreno Valley. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The majority of the near-surface soils consist of low to moderate strength silty sands and sandy silts. These materials will likely be subject to minor caving within shallow excavations. Where caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Moisture Sensitive Subgrade Soils

Most of the near-surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Groundwater

The static groundwater table is considered to exist at a depth in excess of 50± feet below existing grade. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by structural fill soils extending to depths of at least 3 feet below foundation bearing grade. Based on this subsurface profile, the proposed structure may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Four (4) No. 5 rebars (2 top and 2 bottom).

- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.

- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on standard geotechnical practice. Additional rigidity may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill compacted at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential static settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 240 lbs/ft^3
- Friction Coefficient: 0.28

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume

that footings will be poured directly against compacted structural fill soils. The maximum allowable passive pressure is 2,500 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slabs should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the proposed structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill, extending to a depth of at least 6 feet below finished pad grade. Based on geotechnical considerations, the floor slab may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: 100 lbs/in^3.

- Minimum slab reinforcement: Not required for geotechnical considerations. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire slab area where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Exterior Flatwork Design and Construction

Subgrades which will support new exterior slabs-on-grade for sidewalks, patios, and other concrete flatwork, should be prepared in accordance with the recommendations contained in the ***Grading Recommendations*** section of this report. Based on geotechnical considerations, exterior slabs on grade may be designed as follows:

- Minimum slab thickness: 4½ inches.
- Minimum slab reinforcement: No. 3 bars at 18 inches on center, in both directions.
- The flatwork at building entry areas should be structurally connected to the perimeter foundation that is recommended to span across the door opening. This recommendation is designed to reduce the potential for differential movement at this joint.
- Moisture condition the slab subgrade soils to at least 0 to 4 percent of optimum moisture content, to a depth of at least 12 inches. Adequate moisture conditioning should be verified by the geotechnical engineer 24 hours prior to concrete placement.
- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.
- Control joints should be provided at a maximum spacing of 8 feet on center in two directions for slabs and at 6 feet on center for sidewalks. Control joints are intended to direct cracking. Minor cracking of exterior concrete slabs on grade should be expected.

Expansion or felt joints should be used at the interface of exterior slabs on grade and any fixed structures to permit relative movement.

6.8 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required to facilitate the new site grades and in the loading dock areas. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. The following parameters assume that only the on-site soils will be utilized for retaining wall backfill. The majority of the near-surface soils generally consist of silty sands and sandy silts with occasional silty clays, clayey silts, sandy clays, and well-graded sands. Based on their composition, the on-site soils have been assigned a friction angle of 28 degrees. **Silty clays and clayey silts may possess lower strengths and/or higher expansion potentials and are not recommended for use as retaining wall backfill.**

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type
		On-site Soils
Internal Friction Angle (ϕ)		28°
Unit Weight		125 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	45 lbs/ft^3
	Active Condition (2h:1v backfill)	79 lbs/ft^3
	At-Rest Condition (level backfill)	67 lbs/ft^3

The walls should be designed using a soil-footing coefficient of friction of 0.28 and an equivalent passive pressure of 240 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2016 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 3 feet below proposed foundation bearing grade. Foundations to

support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

On-site soils may be used to backfill the retaining walls. All backfill material placed within 3 feet of the back wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a minimum 1 foot thick layer of free-draining granular material (less than 5 percent passing the No. 200 sieve) be placed against the face of the retaining walls. This material should extend from the top of the retaining wall footing to within 1 foot of the ground surface on the back side of the retaining wall. This material should be approved by the geotechnical engineer. In lieu of the 1 foot thick layer of free-draining material, a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, may be used. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 4-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 8-foot on-center spacing. The weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system.

6.9 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The majority of the near-surface soils generally consist of silty sands and sandy silts with some interbedded clayey sands, sandy clays, clayey silts, and silty clays. The results of R-value testing performed for the referenced previous study indicate that tested samples of the near-surface soils possess R-values of 6 and 61. Based on the soil classifications, we expect that the majority of the near-surface soils possess R-values ranging between 25 and 35. The subsequent pavement design is therefore based upon an assumed R-value of 25. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20-year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R = 25)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	6
Aggregate Base	7	9	11	12	14
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 25)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	7	8½
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Any reinforcement within the PCC pavements should be determined by the project structural engineer. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

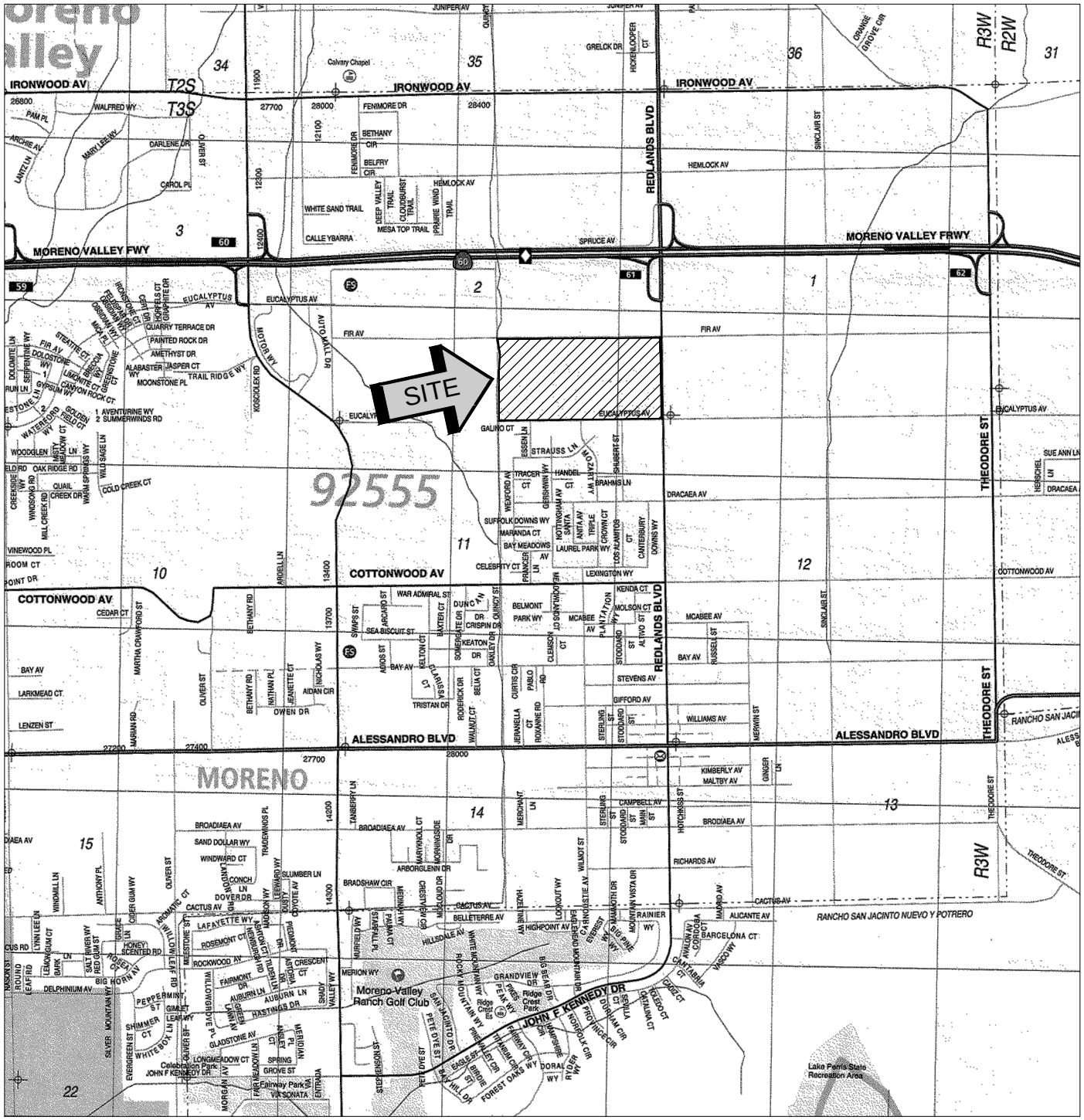
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: ORANGE COUNTY
THOMAS GUIDE, 2013

SITE LOCATION MAP

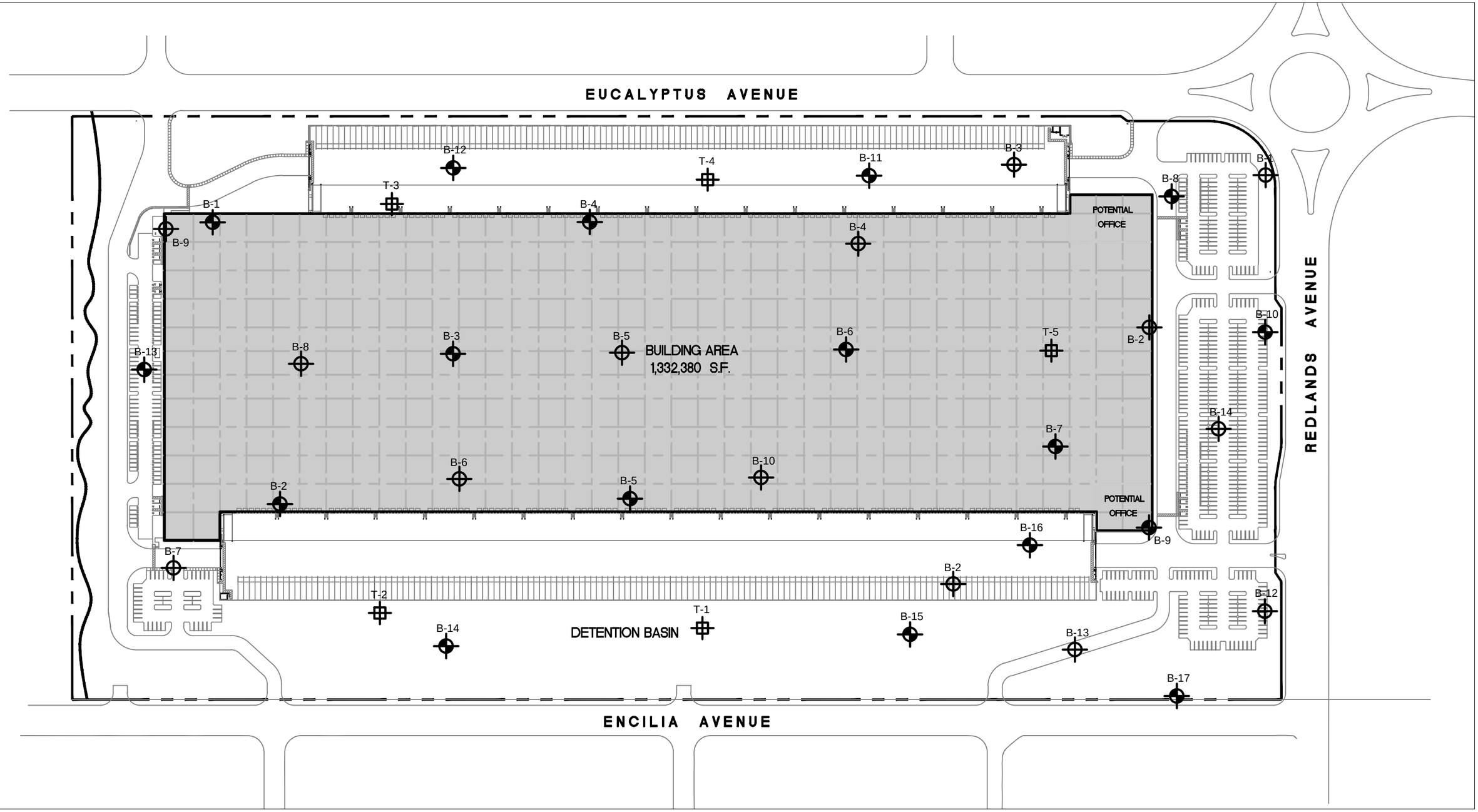
MORENO VALLEY TRADE CENTER

MORENO VALLEY, CALIFORNIA

SCALE: 1" = 2400'	
DRAWN: RNK CHKD: GKM	
SCG PROJECT 19G210-1	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

- APPROXIMATE BORING LOCATION
- PREVIOUS BORING LOCATION (LOR GEOTECHNICAL GROUP PROJECT NO. 23513.1)
- PREVIOUS TRENCH LOCATION (LOR GEOTECHNICAL GROUP PROJECT NO. 23513.1)

NORTH

SoCalGeo

BORING LOCATION PLAN

MORENO VALLEY TRADE CENTER

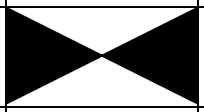
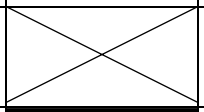
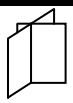
MORENO VALLEY, CALIFORNIA

SCALE: 1" = 200'	
DRAWN: RNK CHKD: RGT	
SCG PROJECT 19G210-1	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

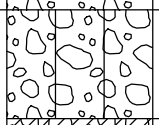
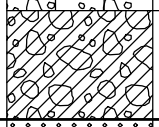
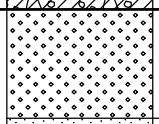
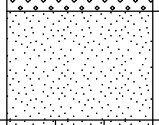
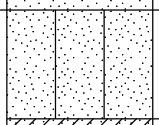
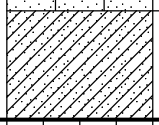
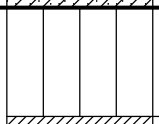
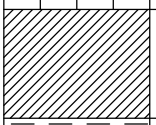
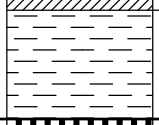
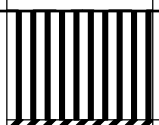
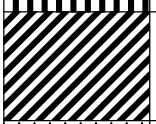
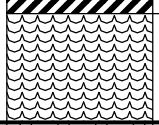
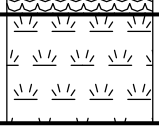
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 42 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1747 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		8			ALLUVIUM: Light Gray Brown fine Sandy Silt, trace medium Sand, trace Clay, trace fine root fibers, loose-damp	90	5					EI = 8 @ 0 to 5 feet
		6			Light Gray Brown to Light Brown Silty fine to medium Sand, trace fine Gravel, trace Clay, loose to medium dense-damp	89	3					
5		7				91	5					
		10				92	5					
10												
		10			Light Gray Brown fine Sand, trace to little Silt, trace medium Sand, medium dense-damp		4					
15												
		13					3					
20												
		22	4.5+		Brown Silty Clay, trace fine Sand, trace calcareous veins, very stiff to hard-moist		14					
25												
		16	2.5				12					
30												
		30	3.0		Light Gray Brown fine Sandy Clay, trace Silt, trace calcareous veins, very stiff to hard, damp		6					

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-1a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 42 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Light Gray Silty fine Sand, trace medium to coarse Sand, trace fine Gravel, medium dense-damp							
40		20					3					
					Light Gray Silty fine Sand with thinly interbedded Light Brown Silty Clay lenses, trace calcareous veins, medium dense to very stiff-moist to very moist							
45		25					15					
					Brown fine Sandy Clay, little calcareous veins, hard-moist							
		24	4.5+				15					
50					Boring Terminated at 50'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG **PLATE B-1b**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1733 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		11			ALLUVIUM: Light Gray Brown fine to medium Sandy Silt, trace Clay, trace coarse sand, trace fine root fibers, loose-dry to damp	112	2					
		9				110	3					
5		9			Light Gray Brown fine Sandy Silt, trace Clay, trace medium to coarse Sand, loose to medium dense-damp	103	6					
		22				111	4					
10		20				108	3					
		10			Light Gray Brown to Brown Silty fine Sand, trace medium to coarse Sand, medium dense-damp		5					
15												
		11					4					
20												
		21					4					
25					Boring Terminated at 25'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 36 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1738 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		6			ALLUVIUM: Light Gray Brown fine Sandy Silt to Silty fine Sand, trace medium to coarse Sand, trace fine root fibers, loose-damp		4					
		6			Light Brown Silty fine Sand, trace fine root fibers, loose-damp		6					
5		7					6					
		10			Light Gray Brown fine to medium Sand, trace coarse Sand, medium dense-dry		2					
10												
		10					2					
15												
		12			Light Gray Brown fine Sand, trace to little Silt, trace medium Sand, trace fine Gravel, medium dense-damp		6					
20												
		13					6					
25												
		20	4.5+		Brown fine Sandy Clay, trace Silt, trace medium Sand, trace calcareous veins, very stiff-moist		14					
30												
		17			Brown Clayey fine to medium Sand, trace Silt, little coarse Sand, trace fine Gravel, medium dense-damp		8					

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-3a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 36 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Light Gray Brown fine Sandy Clay, trace Silt, trace medium Sand, little calcareous veins and nodules, very stiff-moist							
					Light Gray Brown fine Sandy Clay, trace Silt, trace medium Sand, little calcareous veins and nodules, very stiff-moist							
		28	4.5+				14					
40												
					Light Gray Silty fine Sand, trace medium to coarse Sand, dense-damp							
		37					5					
45												
					Light Gray Brown fine Sandy Silt, trace calcareous veins, medium dense-very moist							
		25					13					
50												
					Boring Terminated at 50'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-3b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1741.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		9			ALLUVIUM: Light Gray fine Sandy Silt, trace medium Sand, trace fine root fibers, trace calcareous veins, loose-damp	97	5					
		11				92	5					
5		15			@5 to 6 feet, loose to medium dense, very moist	98	13					
		16			Light Gray fine Sandy Silt to Sitly fine Sand, trace medium to coarse Sand, trace calcareous nodules, medium dense-damp	108	3					
10		15				105	4					
		10					7					
15												
		10			Light Gray Silty fine Sand, medium dense-damp		6					
20												
		12			Brown Clayey fine Sand, trace medium Sand, medium dense-moist		11					
25					Boring Terminated at 25'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-4

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1729 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		13			ALLUVIUM: Light Gray Brown fine Sandy Silt, trace medium to coarse Sand, trace fine root fibers, loose-damp	108	4					
		12			Light Gray Brown Silty fine Sand, loose to medium dense-dry to damp	106	3					
5		16				105	2					
		18				101	2					
		14			Light Gray Brown fine Sandy Silt, little Clay, trace medium to coarse Sand, loose-damp	103	5					
10												
		12			Light Brown Silty fine Sand, medium dense-damp		5					
15												
		14					6					
20												
		31			Brown Clayey fine Sand, trace medium Sand, trace calcareous veins, dense-damp		7					
25					Boring Terminated at 25'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 41 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1730 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		8			ALLUVIUM: Light Gray Brown to Brown fine Sandy Silt, trace medium Sand, trace fine root fibers, loose-damp		5					
		8					5					
5		9					4					
		12			Light Gray Brown Silty fine Sand, trace medium Sand, medium dense-dry to damp		3					
10												
		14					3					
15												
		10			Light Brown fine Sandy Silt, little Clay, trace calcareous veins, medium dense-damp to moist		6					
20												
		11					9					
25												
		14			Brown Silty fine to medium Sand, trace Clay, medium dense-damp		5					
30												
		16	2.5		Brown Clayey fine Sand to fine Sandy Clay, trace calcareous veins, medium dense to very stiff to hard-moist to very moist		16					

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-6a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 41 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
40		22	4.5+				14					
		34					13					
45					Gray Brown to Brown fine Sandy Silt, little Clay, trace calcareous veins, dense-moist							
		30					10					
50					Boring Terminated at 50'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-6b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-7

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: 1721.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		15			ALLUVIUM: Gray Brown fine Sandy Silt, little Clay, trace medium Sand, trace calcareous nodules, medium dense-damp	97	7					EI = 16 @ 0-5'
		8			Light Gray Brown Silty fine Sand to fine Sandy Silt, trace Clay, loose to medium dense-damp	104	6					
5		16				106	4					
		12				109	4					
		12			Light Gray Brown Silty fine Sand, trace Clay, trace medium to coarse Sand, loose-damp	105	5					
10												
		10	2.0		Brown Silty Clay to Clayey Silt, little fine Sand, trace calcareous veins, stiff-very moist		15					
15												
		13			Light Gray fine Sandy Silt, medium dense-damp		6					
20					Boring Terminated at 20'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG **PLATE B-7**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1733 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					ALLUVIUM: Light Gray Silt, little fine Sand, loose-damp							
		13				92	4					
		14			Light Gray Brown fine Sandy Silt, trace Clay, trace fine root fibers, loose to medium dense-moist	102	9					
5		16				91	8					
		19			Gray Brown Silty fine to coarse Sand, trace Clay, medium dense-damp to moist	101	8					
		17				112	3					
10												
					Light Brown fine Sandy Silt to Silty fine Sand, trace Clay, trace medium Sand, medium dense-moist							
		10					8					
15												
		10					7					
20												
					Brown fine Sandy Clay, trace medium Sand, trace calcareous veins, very stiff-moist							
		17	3.0				12					
25												
					Boring Terminated at 25'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-8

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 43 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1718 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		10			ALLUVIUM: Light Gray Brown fine Sandy Silt, little Clay, trace calcareous veins, loose to medium dense-moist		8					
		4					8					
5		7			Light Gray Brown Silty fine Sand, trace Clay, trace medium to coarse Sand, loose to medium dense-damp		5					
		10					5					
10					Gray Brown fine Sandy Silt, medium dense-moist							
		10					10					
15					Gray Brown Silty fine Sand, little Clay, trace medium Sand, medium dense-moist							
		10					10					
20					Dark Brown to Brown fine Sandy Clay, trace calcareous veins and nodules, stiff to very stiff-moist to very moist							
		10	3.0				15					
25												
		14	4.5				13					
30												
		22			Light Gray Silty fine Sand, little medium to coarse Sand, medium dense-damp		5					

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-9a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 43 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
40		17			Light Gray Silty fine Sand, little medium to coarse Sand, medium dense-damp		6					
45		20			Light Brown to Brown Clayey fine Sand, trace medium Sand, trace calcareous veins, very stiff-damp to moist		10					
50		16					8					
					Boring Terminated at 50'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-9b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-10

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 6 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1727 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		4			ALLUVIUM: Light Gray fine Sandy Silt to Silty fine Sand, loose-moist		8					
		6	2.0		Light Gray Brown fine Sandy Clay, trace fine Sand, medium stiff-damp		9					
5		7			Light Brown fine Sandy Silt, trace Clay, trace calcareous veins, loose to medium dense-moist		10					
		10					8					
10					Boring Terminated at 10'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG **PLATE B-10**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-11

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 6 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1738 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		8			ALLUVIUM: Light Gray Brown fine Sandy Silt to Silty fine Sand, trace medium Sand, trace fine root fibers, loose-dry to damp		3					EI = 0 @ 0-5'
		7					3					
5		11			Light Brown Silty fine Sand, little medium to coarse Sand, trace fine Gravel, medium dense-dry to damp		3					
		12			Light Gray fine to medium Sand, little coarse Sand, trace fine Gravel, medium dense-dry to damp		3					
10					Boring Terminated at 10'							

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TEST BORING LOG **PLATE B-11**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-12

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 5 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1746.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		7			ALLUVIUM: Light Gray Brown fine Sandy Silt to Silty fine Sand, trace coarse Sand, trace fine root fibers, loose to medium dense-damp		4					
		7					4					
5		8					4					
		10					5					
10					Boring Terminated at 10'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-12

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-13

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 6 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1741.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		10			ALLUVIUM: Light Gray Brown fine Sandy Silt, little Clay, trace medium Sand, trace calcareous veins, loose-damp to moist	95	5					
		9				91	11					
5		11			Light Brown fine Sandy Silt to Silty fine Sand, trace medium Sand, loose-damp	101	6					
		12				107	4					
					Light Gray Brown Silty fine Sand, trace Clay, trace medium Sand, loose-damp							
		13				106	4					
10					Light Gray Brown fine to medium Sand, little Silt, trace coarse Sand, loose-damp							
					Boring Terminated at 10'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-13

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-14

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/9/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1726.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		3			ALLUVIUM: Gray Brown Silty fine to medium Sand, trace fine Gravel, very loose-damp		4					
		6			Gray Brown fine Sandy Silt to Silty fine Sand, trace Clay, trace medium Sand, trace fine root fibers, trace calcareous veins, loose to medium dense-moist		11					
5		7					11					
		10					8					
10												
		10			Light Gray Brown fine Sand, trace Silt, trace medium to coarse Sand, medium dense-damp		3					
15												
		15			Light Gray Brown fine to medium Sand, medium dense-dry		2					
20					Boring Terminated at 20'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG

PLATE B-14

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-15

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/10/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 12 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1715.5 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		5			ALLUVIUM: Light Gray Brown fine Sandy Silt, trace Clay, trace medium Sand, trace calcareous veins and nodules, loose-damp		6					
		7					7					
5		6			Light Gray Brown Silty fine Sand, trace medium to coarse Sand, loose-dry to damp		3					
		10			Light Brown fine to medium Sand, trace to little Silt, little fine Gravel, medium dense-damp		3					
10												
		11			Light Gray Silty fine Sand, trace medium to coarse Sand, medium dense-damp		4					
15												
		13			Light Gray Brown fine Sandy Silt, little Clay, trace calcareous nodules, medium stiff-moist		11					
20					Boring Terminated at 20'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG **PLATE B-15**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-16

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1718 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		5			ALLUVIUM: Gray Brown fine Sandy Silt to Silty fine Sand, trace medium Sand, trace fine root fibers, loose-damp		5					
		8					4					
5		6					5					
		11			Light Gray Brown fine to medium Sand, trace coarse Sand, trace fine Gravel, trace fine root fibers, medium dense-damp		3					
10												
		10			Gray Brown fine Sandy Silt, trace medium to coarse Sand, trace calcareous veins and nodules, medium dense-dry to damp		3					
15												
		17					8					
20					Boring Terminated at 20'							

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TEST BORING LOG **PLATE B-16**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-17

JOB NO.: 19G210-1
PROJECT: Moreno Valley Trade Center
LOCATION: Moreno Valley, California

DRILLING DATE: 10/11/19
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ross Kovtun

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

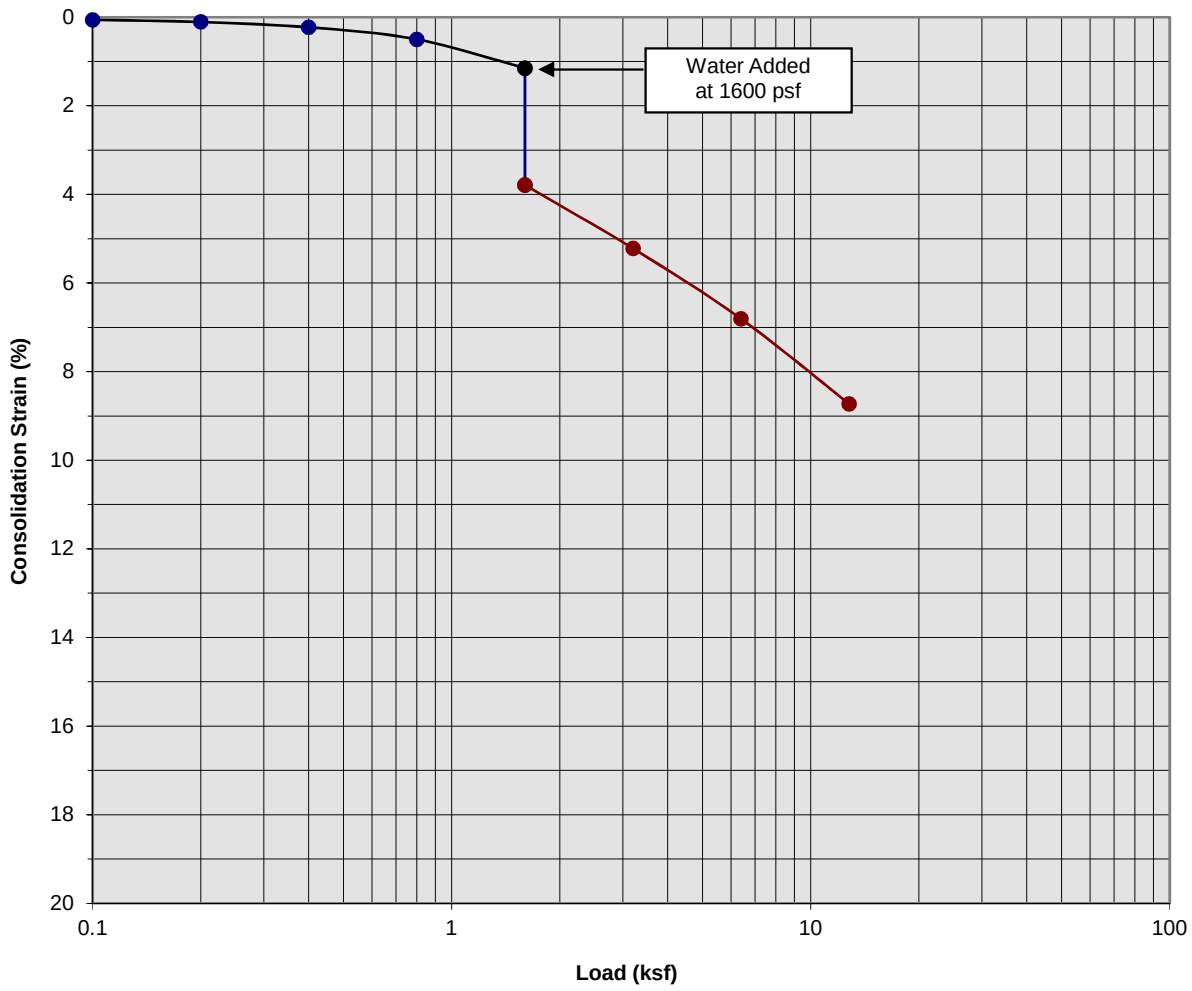
FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: 1709 feet MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		10			ALLUVIUM: Dark Brown fine Sandy Silt, trace Clay, trace medium Sand, trace fine root fibers, trace calcareous veins, stiff-damp		4					
		6			Brown Silty fine Sand, trace medium Sand, trace fine root fibers, loose-damp		6					
5		6			Light Gray Brown fine Sandy Silt to Silty fine Sand, trace Clay, trace medium Sand, loose to medium dense-dry to damp		6					
		10					2					
10												
					Light Gray fine to medium Sand, little coarse Sand, medium dense-dry							
		10					2					
		10			Gray Brown fine Sandy Silt, trace Clay, trace calcareous veins and nodules, medium dense-moist to very moist		11					
15												
					Light Gray Brown Silty fine Sand, medium dense-damp							
		10					6					
20					Boring Terminated at 20'							

TBL 19G210.GPJ SOCALGEO.GDT 11/5/19

TEST BORING LOG **PLATE B-17**

APPENDIX C

Consolidation/Collapse Test Results



Classification: Light Gray Brown fine to medium Sandy Silt

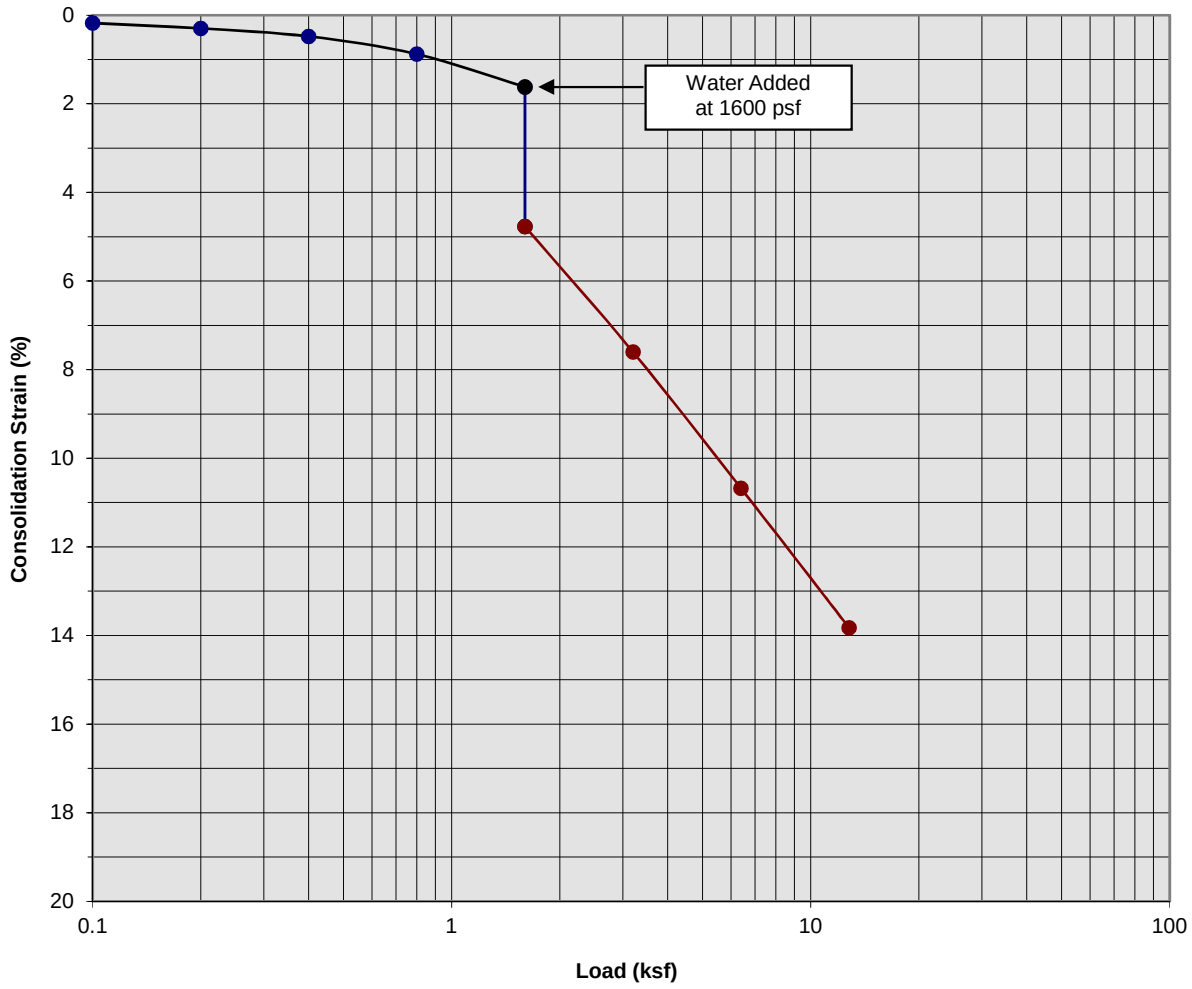
Boring Number:	B-2	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	3 to 4	Initial Dry Density (pcf)	109.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.64

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Gray Silt, trace Clay, trace fine to medium Sand

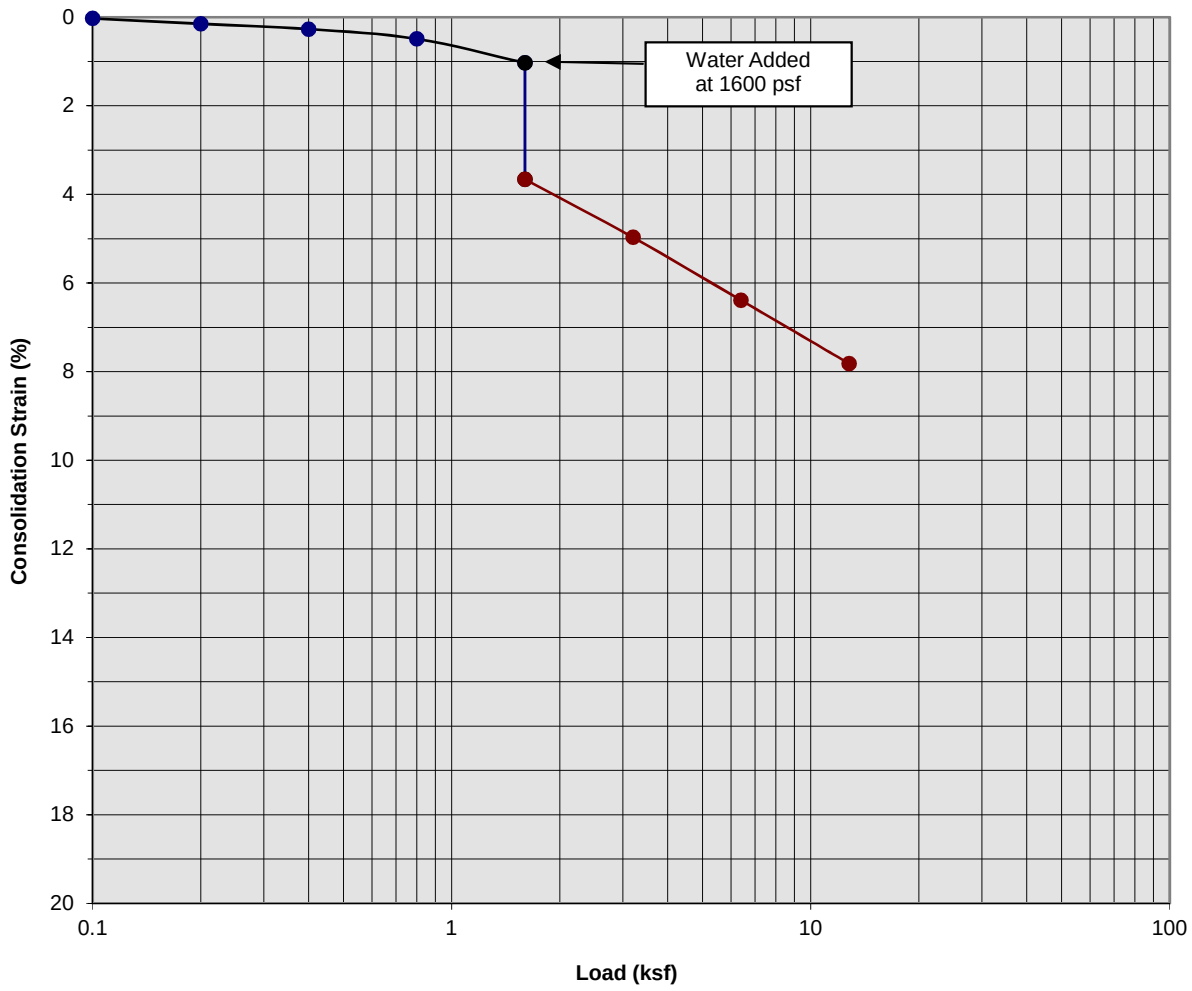
Boring Number:	B-2	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	21
Depth (ft)	5 to 6	Initial Dry Density (pcf)	103.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	3.15

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Gray fine Sandy Silt, trace Clay, trace fine to medium Sand

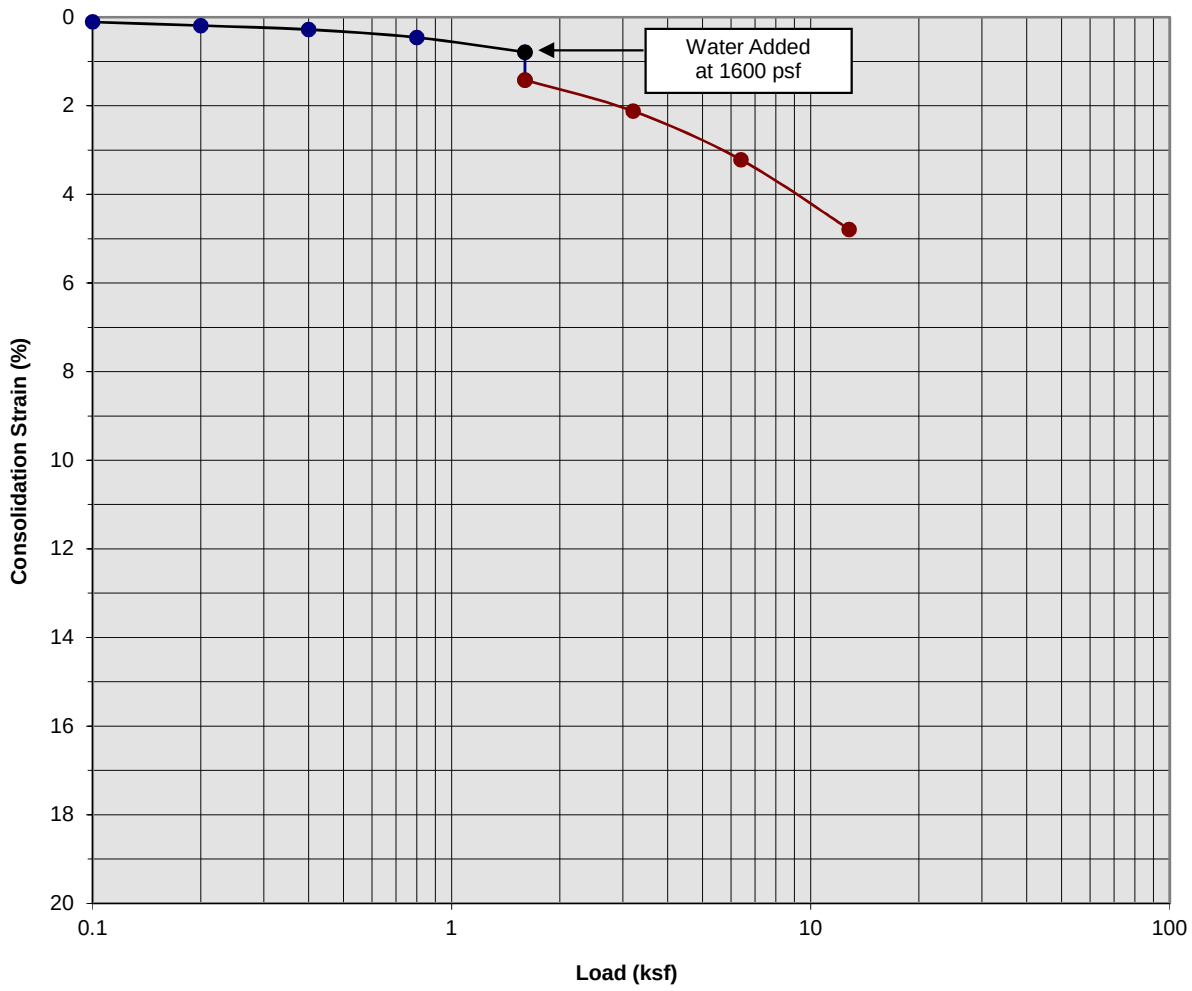
Boring Number:	B-2	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	7 to 8	Initial Dry Density (pcf)	110.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.63

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Gray fine Sandy Silt, trace Clay, trace fine to medium Sand

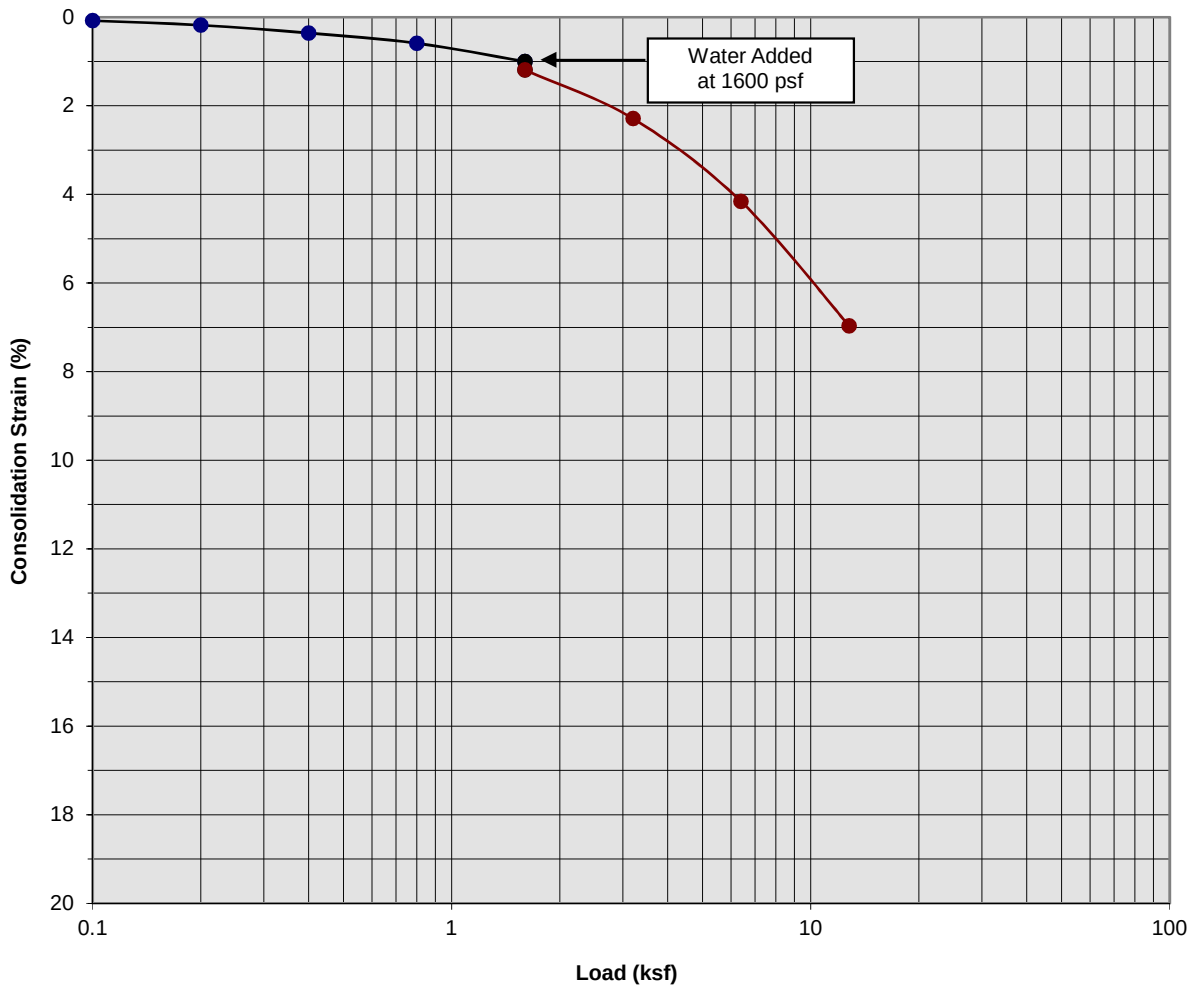
Boring Number:	B-2	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	9 to 10	Initial Dry Density (pcf)	108.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	113.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.63

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Gray Brown fine Sandy Silt, trace Clay

Boring Number:	B-8	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	3 to 4	Initial Dry Density (pcf)	102.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	110.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.19

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 5

SoCalGeo
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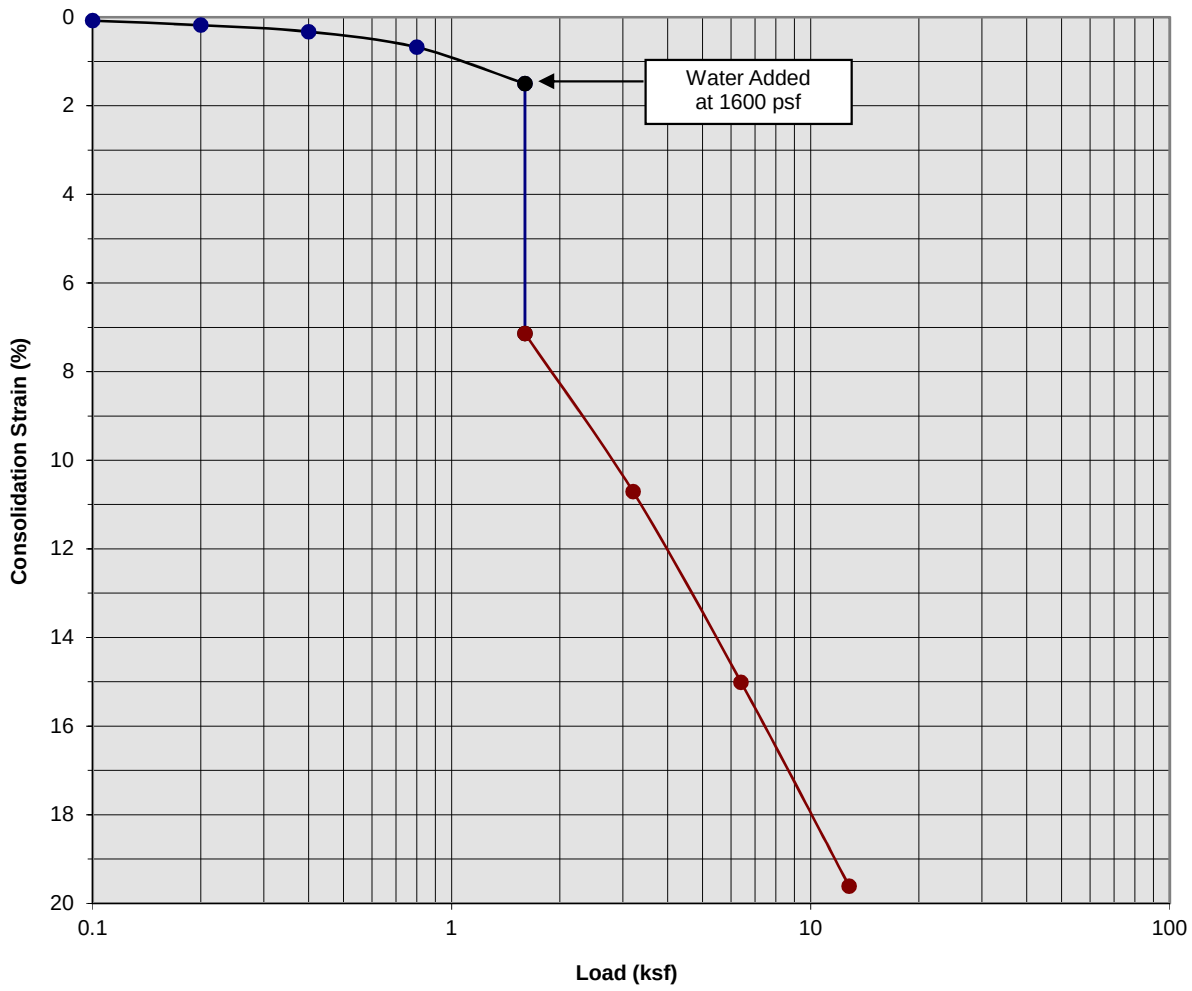
Consolidation/Collapse Test Results



Classification: Light Gray Brown fine Sandy Silt, trace Clay

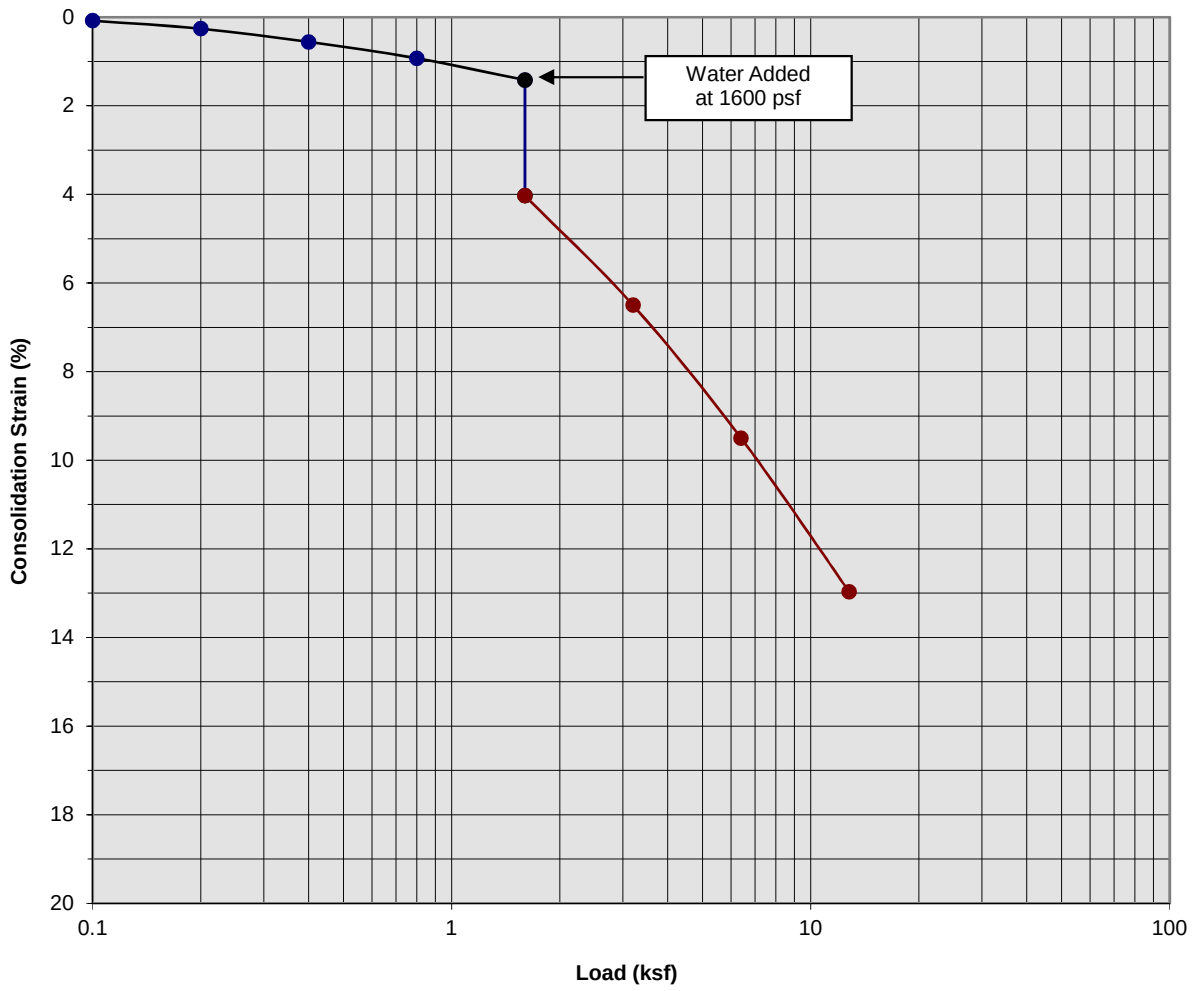
Boring Number:	B-8	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	21
Depth (ft)	5 to 6	Initial Dry Density (pcf)	91.8
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	114.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.64

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Gray Brown Silty fine to medium Sand, trace Clay

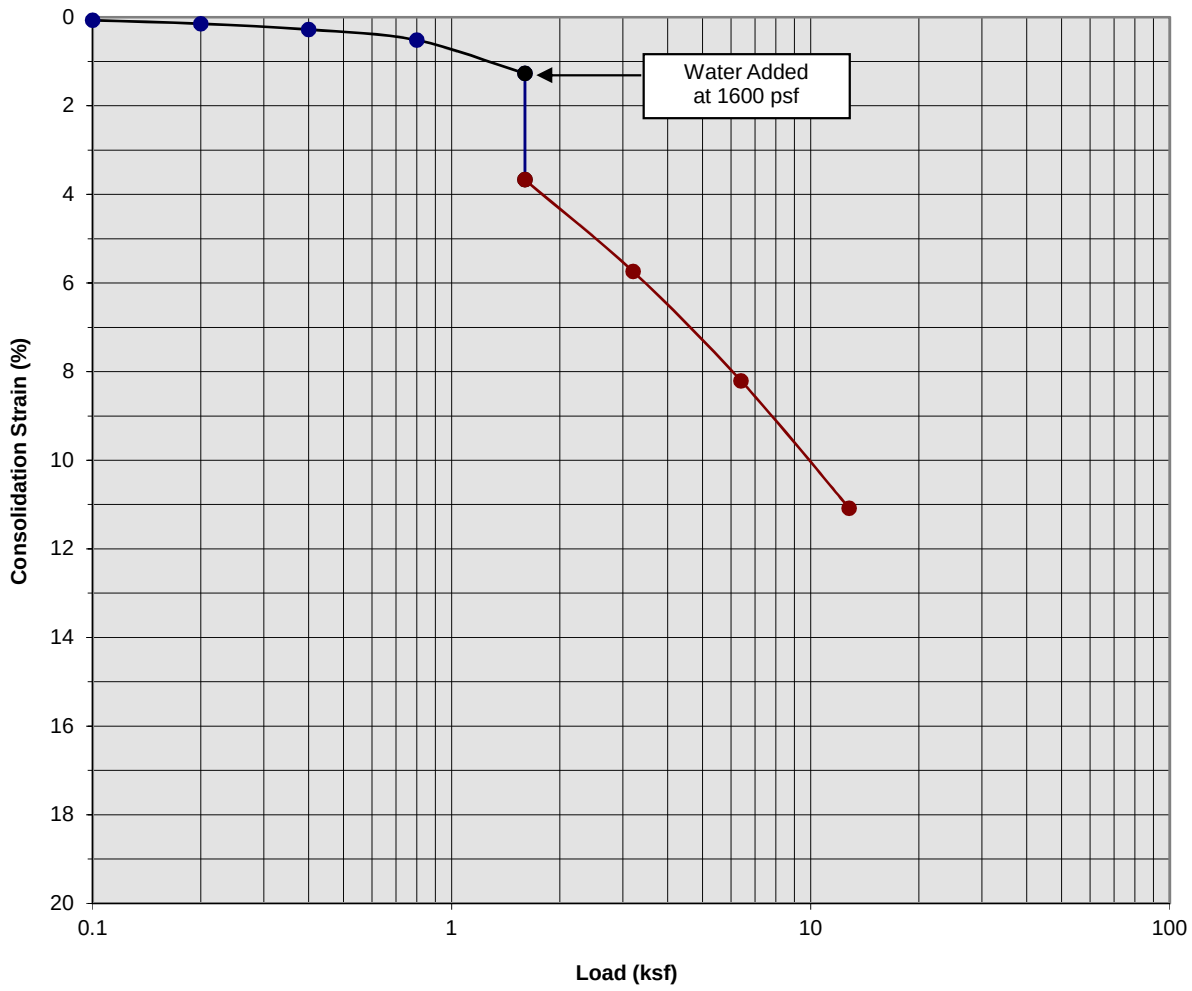
Boring Number:	B-8	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	7 to 8	Initial Dry Density (pcf)	101.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	116.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.61

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 7

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Gray Brown Silty fine to medium Sand, trace Clay

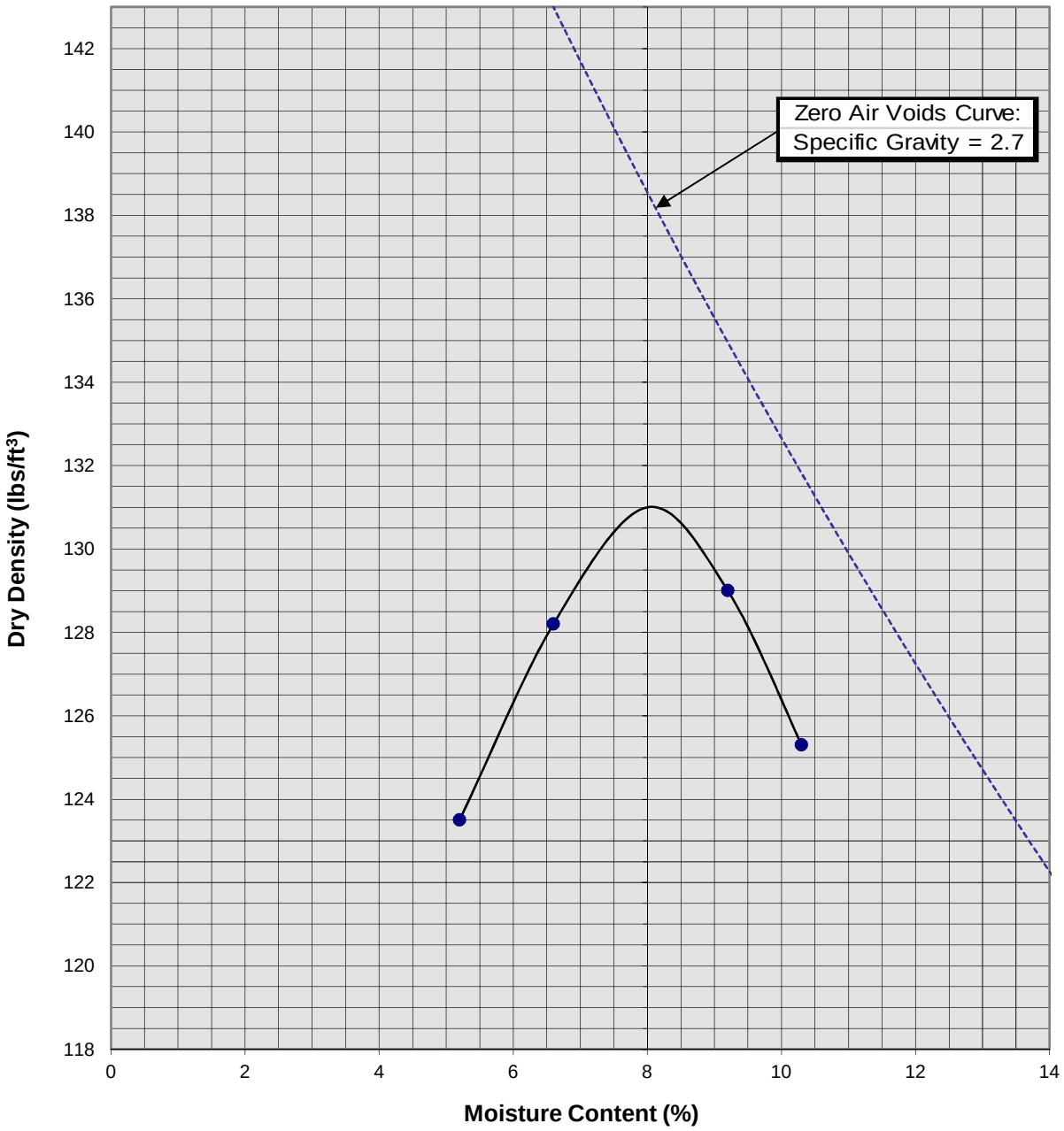
Boring Number:	B-8	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	9 to 10	Initial Dry Density (pcf)	112.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	126.3
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.40

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C- 8

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



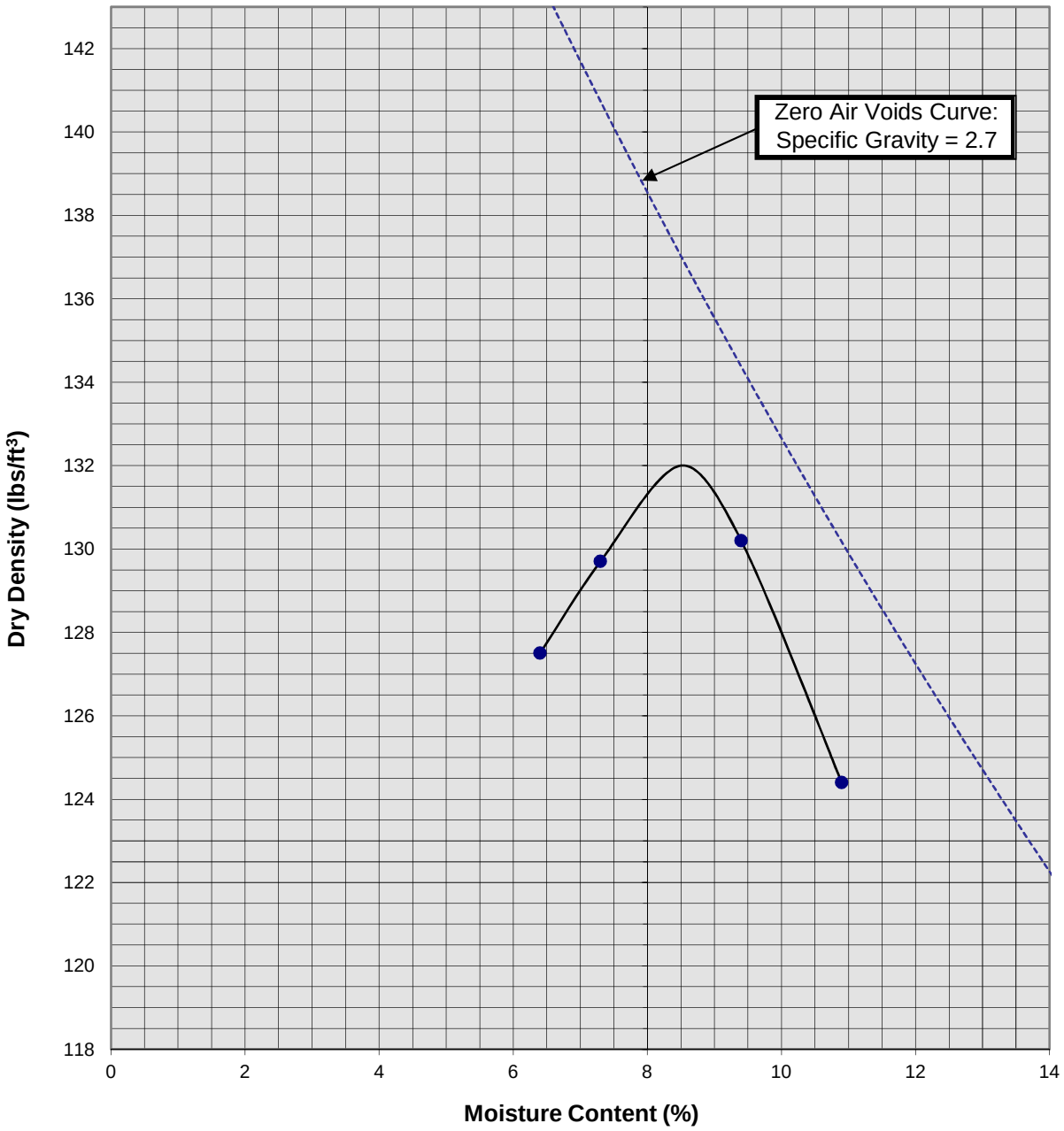
Soil ID Number	B-7 @ 0 to 5'
Optimum Moisture (%)	8
Maximum Dry Density (pcf)	131
Soil Classification	Light Brown fine Sandy Silt, trace medium to coarse Sand, trace Clay

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C-9

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-11 @ 0 to 5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	132
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand

Proposed Moreno Valley Trade Center
Moreno Valley, California
Project No. 19G210-1

PLATE C-10

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

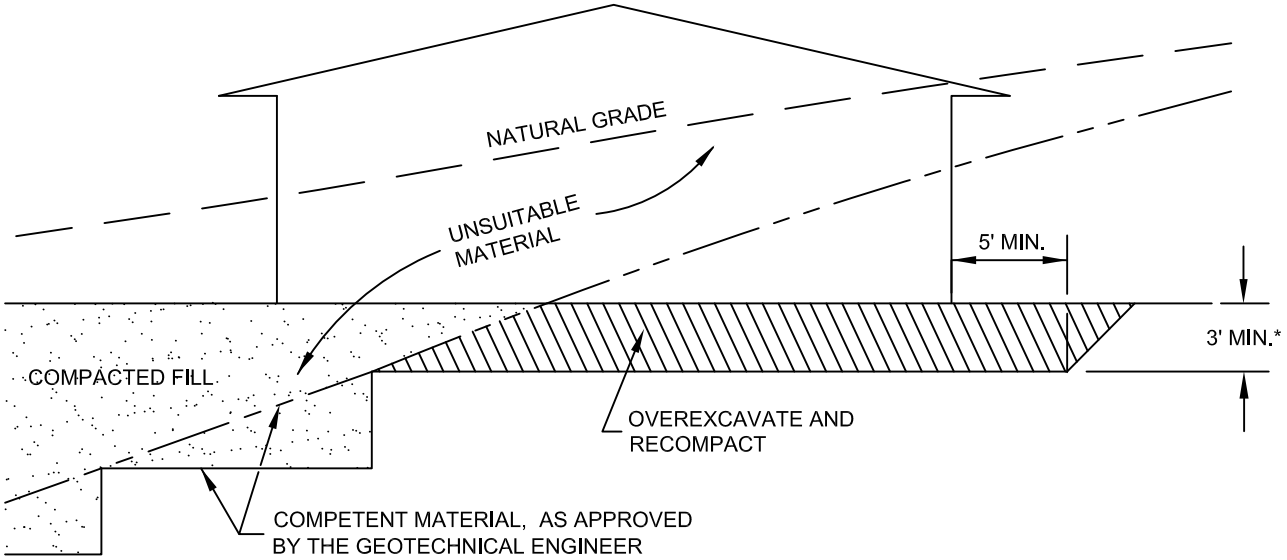
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

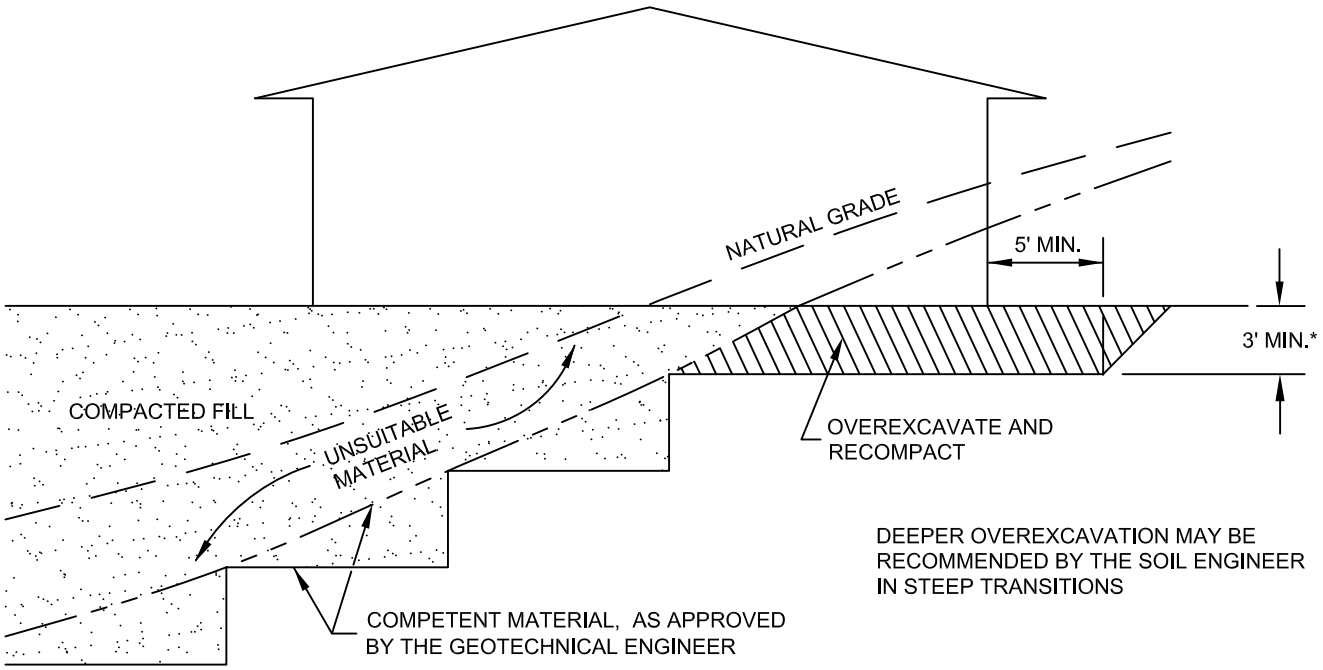
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)

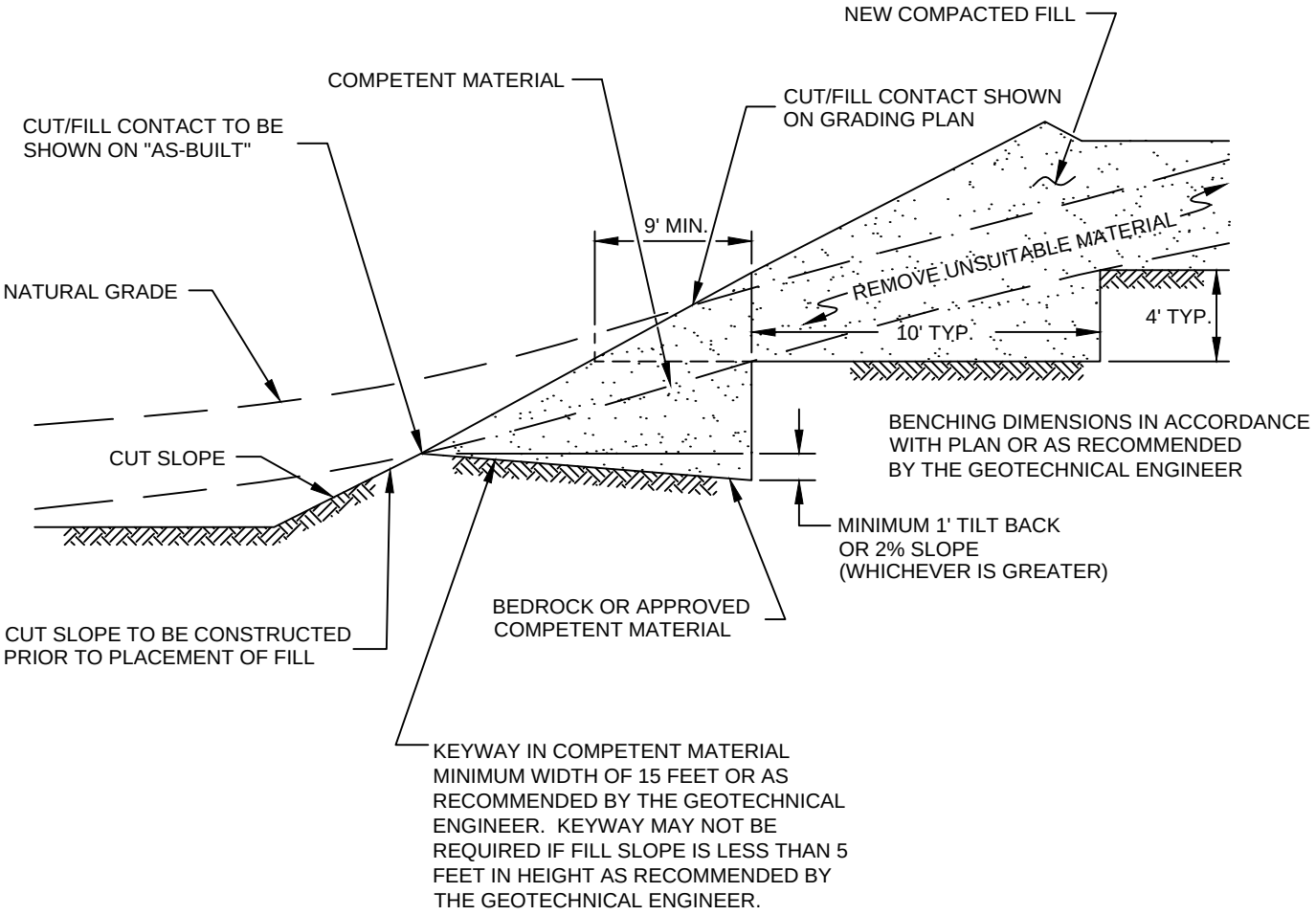


*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE	SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAS CHKD: GKM	
PLATE D-1	



FILL ABOVE CUT SLOPE DETAIL

GRADING GUIDE SPECIFICATIONS

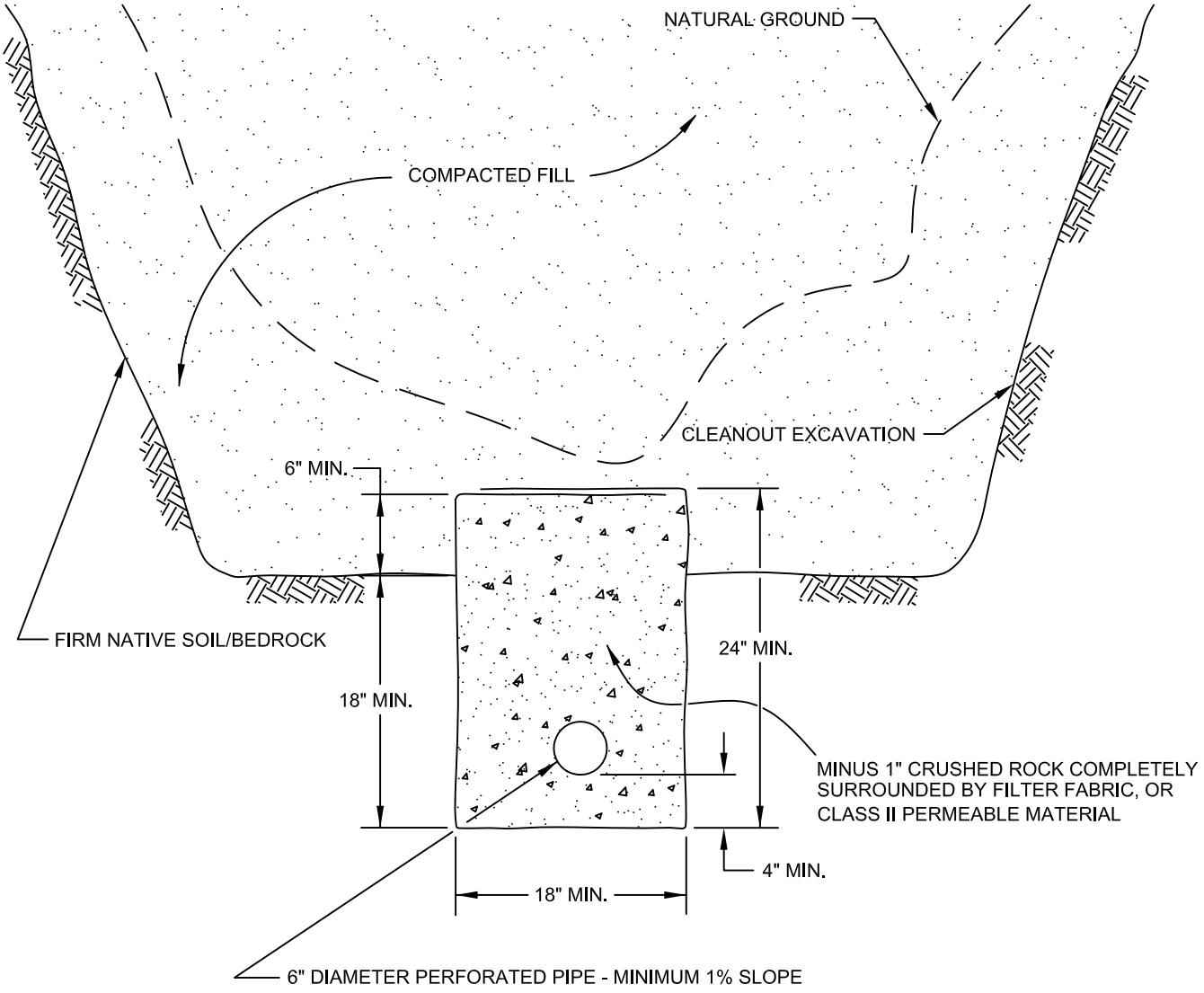
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

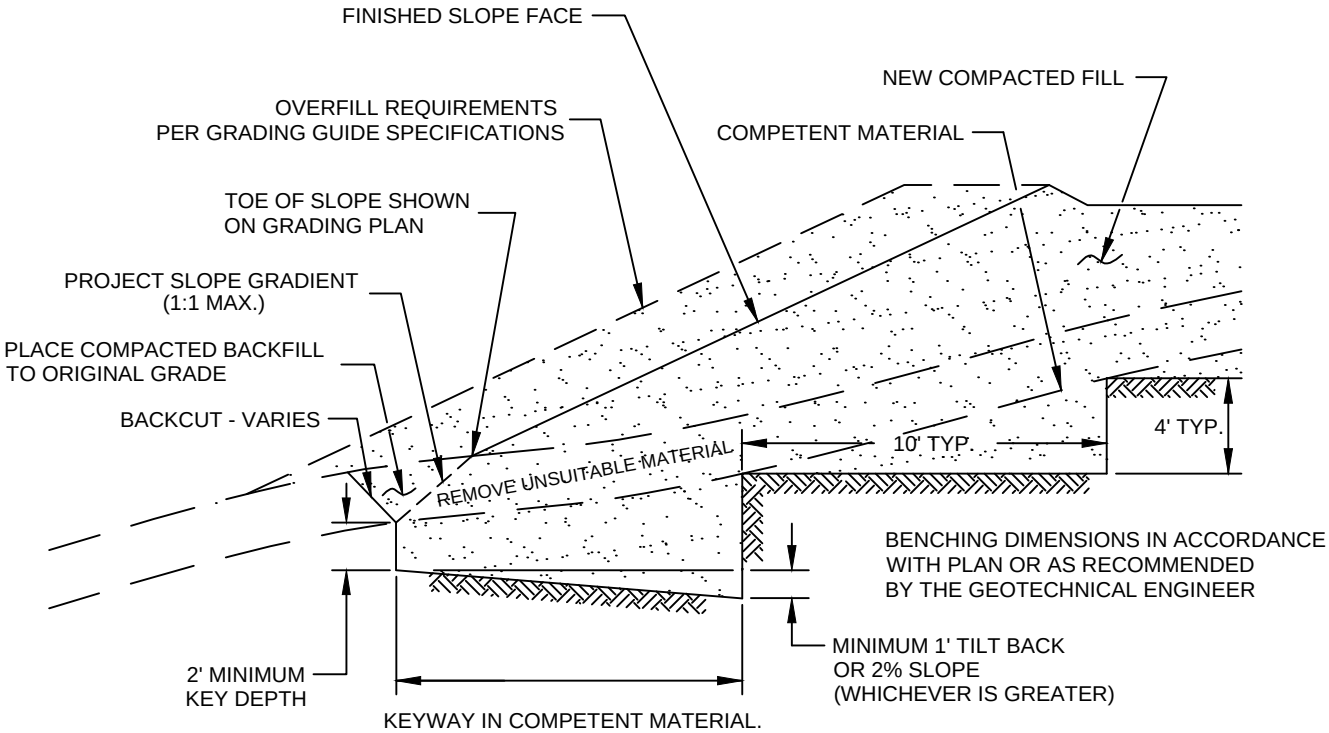
SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

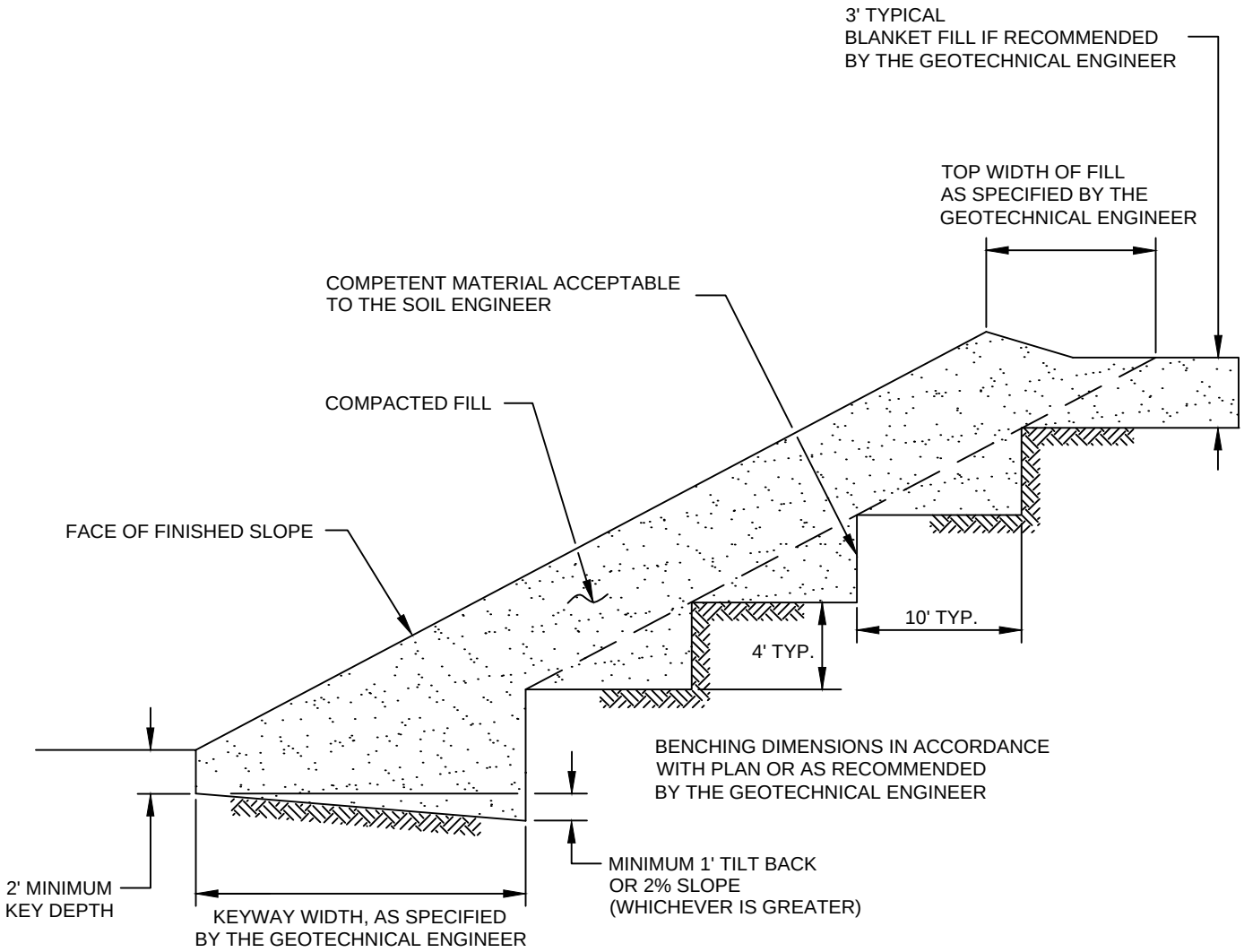
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

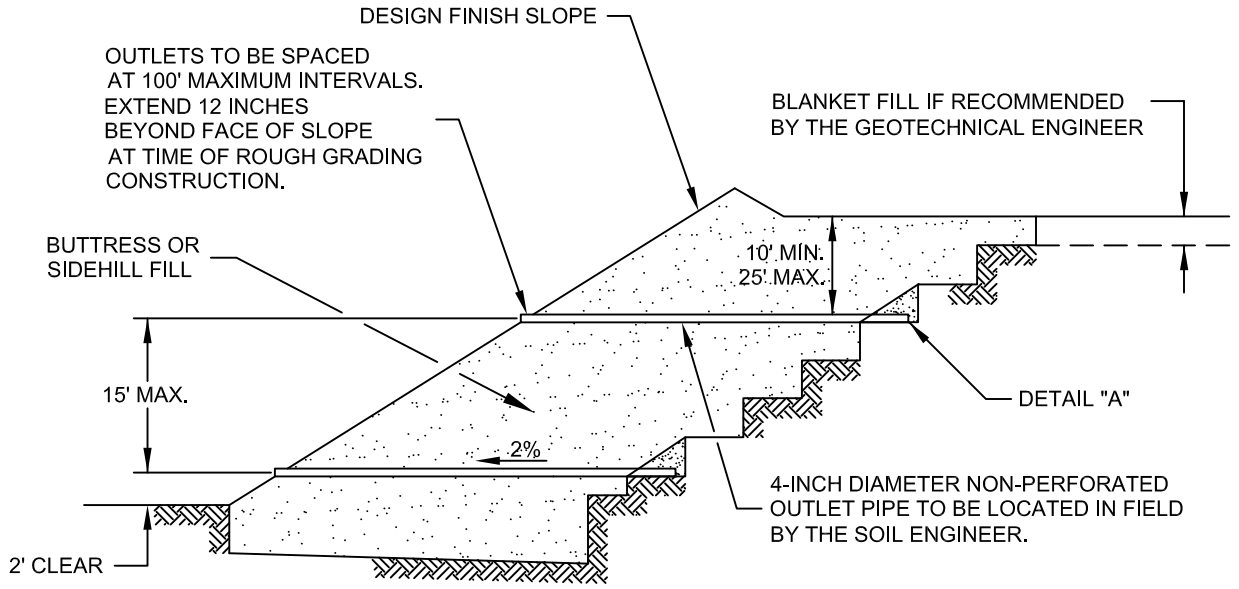
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



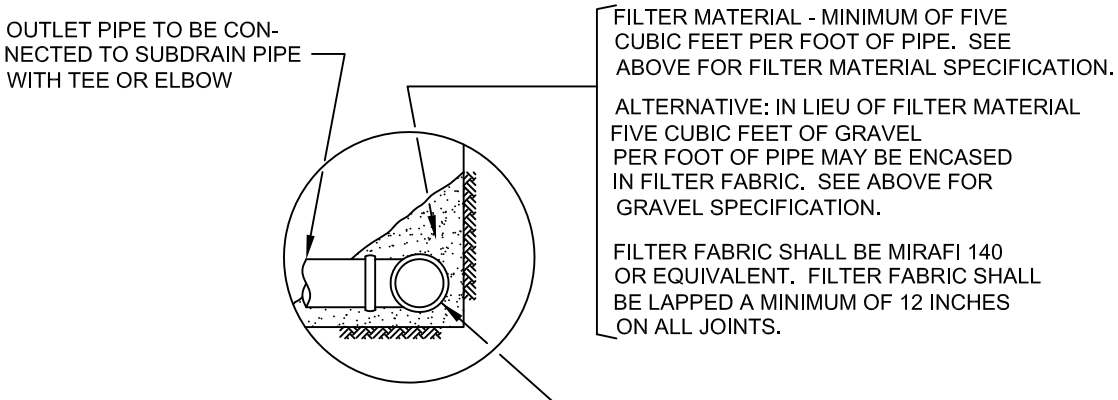
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

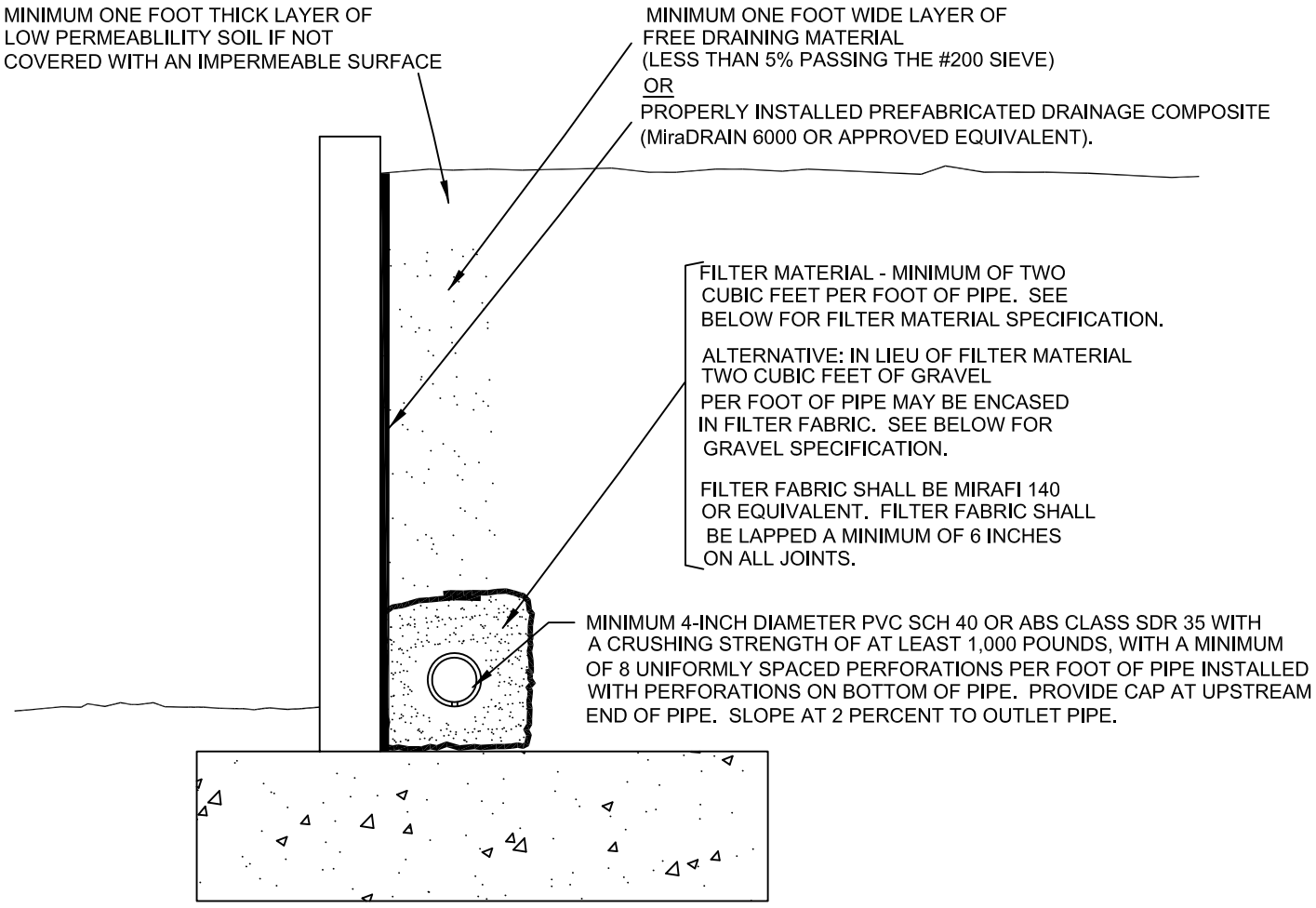
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

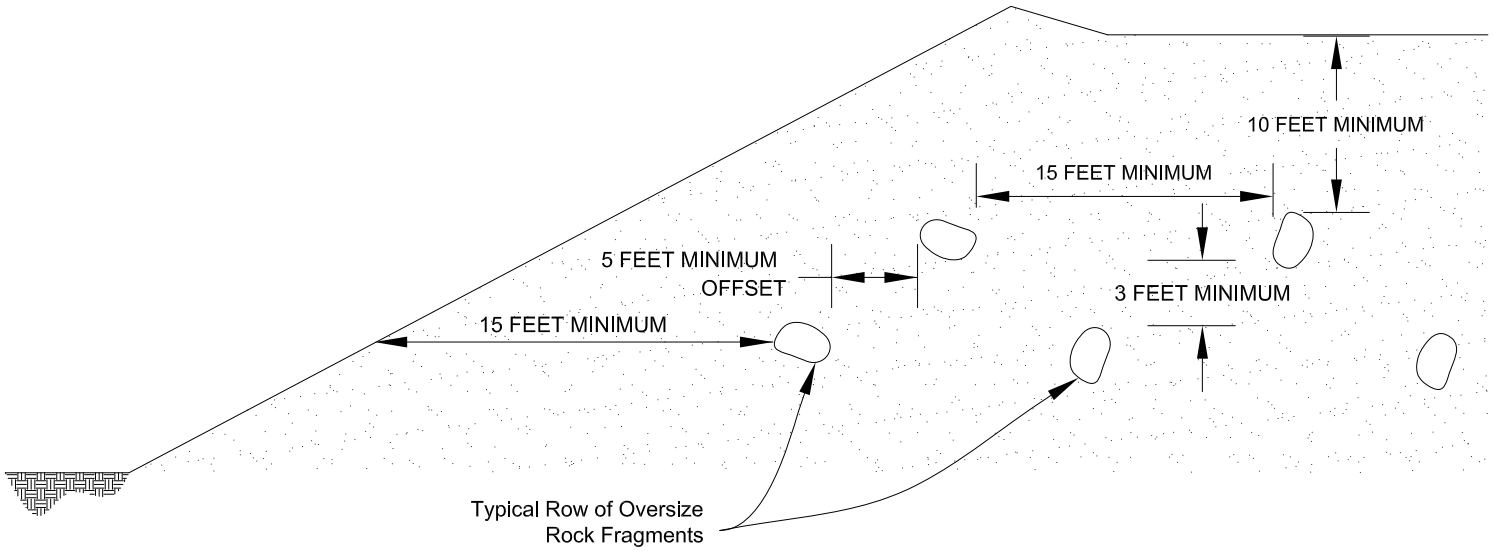
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

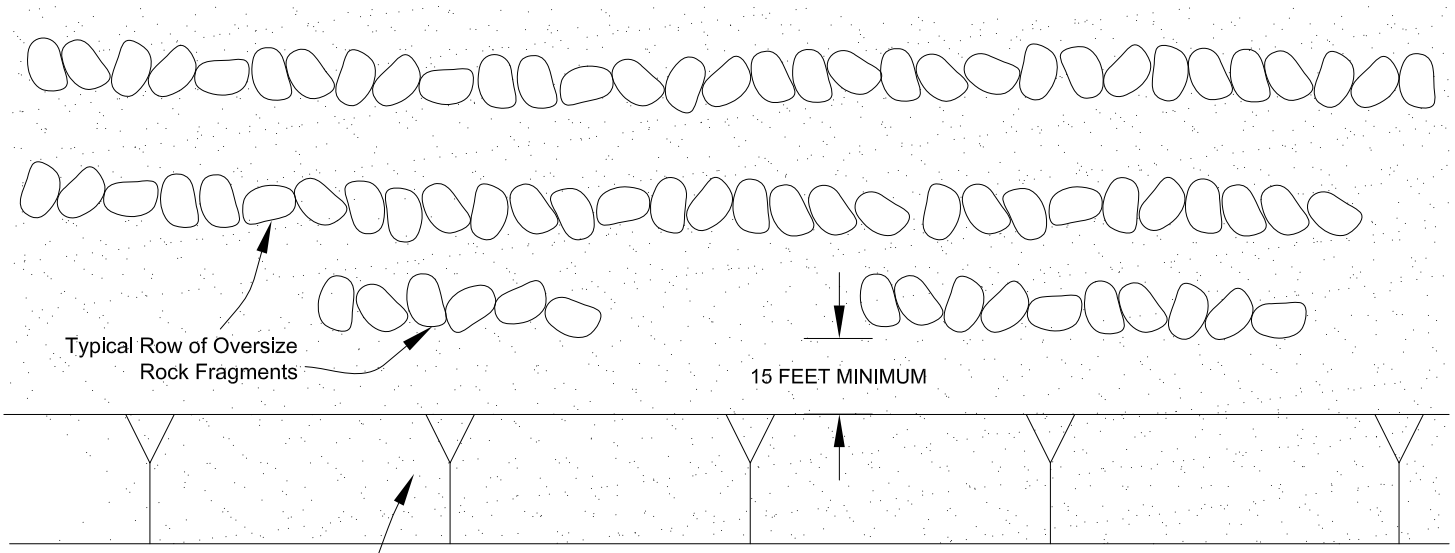
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

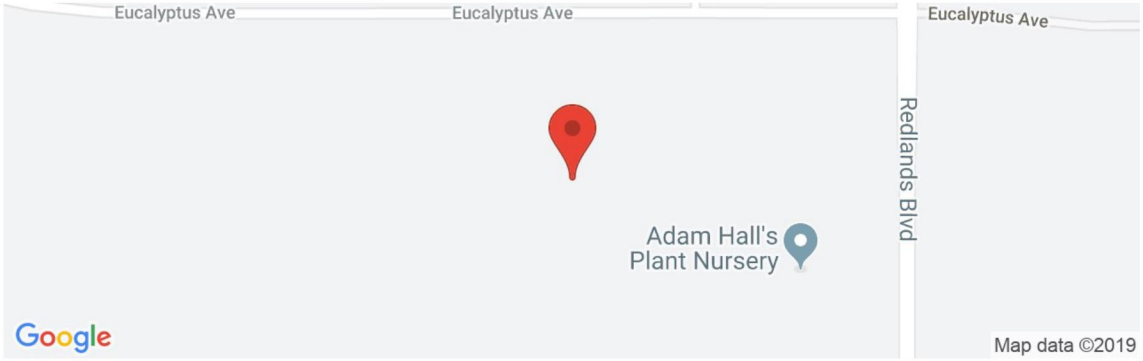
SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

OSHPD

Latitude, Longitude: 33.93388569, -117.16079320

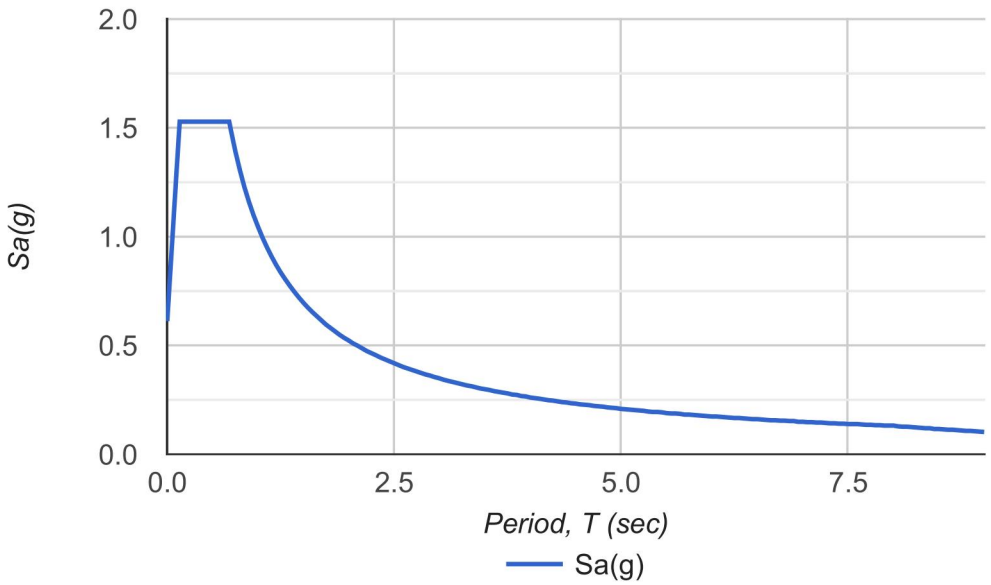


Date	10/17/2019, 2:36:40 PM
Design Code Reference Document	ASCE7-10
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	2.291	MCE_R ground motion. (for 0.2 second period)
S_1	1.046	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.291	Site-modified spectral acceleration value
S_{M1}	1.568	Site-modified spectral acceleration value
S_{DS}	1.528	Numeric seismic design value at 0.2 second SA
S_{D1}	1.046	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	E	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.882	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.882	Site modified peak ground acceleration

Design Response Spectrum



SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2016 CBC

MORENO VALLEY TRADE CENTER

MORENO VALLEY, CALIFORNIA

DRAWN: RNK
CHKD: GKM

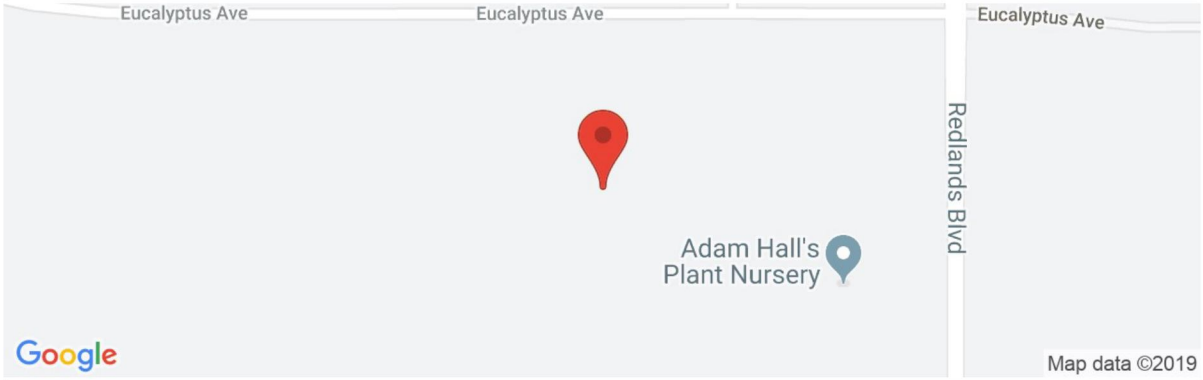
SCG PROJECT
19G210-1

PLATE E-1A

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

OSHPD

Latitude, Longitude: 33.93388569, -117.16079320



Date	10/17/2019, 2:37:21 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	2.195	MCE_R ground motion. (for 0.2 second period)
S_1	0.886	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.195	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.463	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	0.958	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	1.054	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.195	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.433	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.273	Factored deterministic acceleration value. (0.2 second)
S1RT	0.886	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	1.004	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.908	Factored deterministic acceleration value. (1.0 second)
PGAd	0.958	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.902	Mapped value of the risk coefficient at short periods
C_{R1}	0.883	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

MORENO VALLEY TRADE CENTER

MORENO VALLEY, CALIFORNIA

DRAWN: RNK
CHKD: RGT

SCG PROJECT
19G210-1

PLATE E-1B

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use (NOT APPLICABLE)

LOR GEOTECHNICAL GROUP, INC.
Soil Engineering ▲ Geology ▲ Environmental

PHASE I ENVIRONMENTAL SITE ASSESSMENT APNs488-340–002 THROUGH -012, SOUTHWEST CORNER OF REDLANDS BOULEVARD. AND EUCALYPTUS AVENUE, MORENO VALLEY, CALIFORNIA.

PROJECT NO. 23513.2
MARCH 1, 2019

Prepared For:

Brixton Capital
120 S. Sierra Avenue
Solana Beach, California 92075

Attention: Mr. Bob Emri

LOR GEOTECHNICAL GROUP, INC.
Soil Engineering ▲ Geology ▲ Environmental

March 1, 2019

Brixton Capital
120 S. Sierra Avenue
Solana Beach, California 92075

Project No. 23513.2

Attention: Mr. Bob Emri

Subject: Phase I Environmental Site Assessment on an approximate 70 acre property (APNs 488-340-002 through -012), located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California.

Attached herewith is the Phase I Environmental Site Assessment (ESA), approximate 70 acre property located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California.

This Phase I ESA and LSC was planned and executed based upon a scope of services generally outlined in our Proposal, dated June 22, 2016, and Work Authorization Agreement, dated January 14, 2019.

We appreciate the opportunity to provide this Phase I ESA and LSC for the subject property. If you have any questions or comments regarding this assessment, please do not hesitate to contact this firm at your convenience.

LOR Geotechnical Group, Inc.

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EXECUTIVE SUMMARY

This firm conducted a Phase I ESA, on an approximate 70 acre property (APNs 488-340-002 through -012), located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California. This Phase I ESA was conducted for Brixton Capital in conformance with ASTM E1527-13 and AAI set forth in 40 CFR part 312.

The researched history of the subject site indicates most of the site has been largely agricultural, both dry farm, groves, nursery, and residential. There were six residential structures and numerous outbuildings associated with the subject site. Two of the residences and associated outbuildings (Parcels 0033 and 004) were demolished. The demolished residences and outbuildings were removed in 2007 (Parcel 004) and 2015 (Parcel 003). Four residences with associated garages as well as numerous sheds and steel storage containers are present on the current nursery property (Parcels 005 through 008).

The nursery business was in operation since the late 1970's but at a much smaller scale than the present day operations which encompass all four parcels (Parcels 5-8).

During future grading or excavation at the subject site, fill materials and/or disturbed soils will be encountered. Subsurface utility lines and subsurface structures, including old irrigation lines and septic systems associated with the current and former residences should be expected. The water well associated with the nursery and any other water wells present on the subject site should be abandoned in accordance with the County of Riverside, Department of Environmental Health policies and procedures.

Only household quantities of hazardous materials and a minor amount of automotive related hazardous waste (waste oil) was observed on the nursery property. These should be disposed of/recycled at a licensed hazardous waste disposal/recycling facility.

During a Preliminary Environmental Assessment conducted by The Planning Center (TPC) for a potential school site, soil samples were obtained in areas of the former citrus groves and structures (residential and outbuildings) on all of the subject site except the nursery property. TPC conducted a statistical analyses of soil sample results for the metals detected and found that all metals detected were within background concentrations except for Zinc, which was slightly elevated. After the removal of 1.52 cubic yards of soil from a portion of the residential structure addressed 28855 Redlands Boulevard, which had Chlordane at a maximum concentration of 2.4 mg/kg, samples from the remainder of the

site showed six Organochlorine Pesticides present at low concentrations but above the laboratory reporting limits. The maximum concentration of the six organochlorine pesticides remaining at the subject site was; 0.006 mg/kg of DDD, 0.190 mg/kg of DDE, 0.110 mg/kg of DDT, 0.33 mg/kg of total Chlordane, 0.007 mg/kg of Dieldrin and 0.005 mg/kg of Heptachlor Epoxide. These were the concentrations used in the TPC risk analysis. TPC's risk analysis, which was based on residential land use, indicated the levels of Organochlorine Pesticides and Zinc remaining at the subject site do not pose a significant risk to human health and that the noncarcinogenic hazard index and carcinogenic risk were below levels of concern. If this data is applied to the nursery, which had a similar history of site use then this data and conclusions should be applicable. The Chlordane detected at a maximum concentration of 2.4 mg/kg adjacent a portion of the residence addressed 28855 Redlands Boulevard, if applied to the nursery structures is below the Environmental Protection Agency (EPA) November 2018, Regional Screening Levels of 7.7 mg/kg for industrial soil. However, if the property is to be developed residentially then soil sampling for Organochlorine Pesticides and metals at the nursery property should be conducted.

We have performed this Phase I ESA Update in accordance with ASTM E1527-13 and AAI for the approximate 70 acre property (APNs 488-340-002 through -012), located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California. Based on the findings of this Phase I ESA, and with consideration given to the recommendations contained in this report, (1) the subject site exhibits no evidence of recognized environmental conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site that would prohibit its intended use as a commercial/industrial development, and (2) no further tests or investigations are recommended.

INTRODUCTION

During February of 2019, a Phase I Environmental Site Assessment (ESA) was conducted by this firm for an approximate 70 acre property (APNs 488-340-002 through -012), located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, "subject site", in the City of Moreno Valley, California. The subject site currently consists of predominately vacant land, with a nursery located in the southeast portion. Historically site usage was vacant land, agricultural, and residential. This Phase I ESA was conducted for Brixton Capital which plans to develop the subject site commercially.

The Phase I ESA was conducted in conformance with the Standard Practice for Environmental Site Assessments: Phase I ESA Process, American Society for Testing and Materials (ASTM) E1527-13, and All Appropriate Inquiries (AAI) set forth in 40 CFR (Code of Federal Regulations) Part 312. The purpose was to identify recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), and/or controlled recognized environmental conditions (CRECs) that may be associated with the Site. A REC is defined as the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. A HREC is defined as 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 meets the unrestricted use criterial established by a regulatory authority, without subjecting the property to any required controls (i.e., property use restrictions, activity and use limitations, institutional controls, or engineering controls, which would fall under a controlled recognized environmental condition or CREC). This does not include de minimis conditions, that generally, do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of the appropriate government agency. Conditions determined to be de minimis are not recognized environmental conditions or controlled recognized environmental conditions.

The approximate location of the site within its regional setting is presented on Enclosure A-1, within Appendix A.

The scope of the Phase I ESA included: 1) A reconnaissance of the subject site and immediate vicinity; 2) Review of the data and reports available from various regulatory agencies; 3) A questionnaire was completed by a representative of the property owner of

the site; 4) A review of available historical aerial photographs, County Assessor's information, city building records, city directory information, and topographic maps; and 5) Preparation of this report.

The findings of our Phase I ESA and LSC, as well as our conclusions and recommendations, are presented in the following sections of this report.

NON-SCOPE CONSIDERATIONS

The following environmental issues are outside the scope of ASTM E1527-13 and 40 CFR Part 312, and may not have been addressed in this report:

- Lead in Drinking Water
- Lead-Based Paint
- Wetlands
- Methane
- Cultural Land Historical Resources
- Industrial Hygiene
- Health and Safety
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Mold and Mildew
- Asbestos-Containing Materials
- Mineral Resources
- Regulatory Compliance
- Natural Hazards
- High Voltage Power Lines

METHODOLOGY AND PROCEDURES

Per ASTM E1527-13 and AAI, User provided information was obtained to the extent feasible, and evaluated with respect to site history, usage, and environmental concerns.

A review of the physical setting of the subject site, including geology and hydrogeology, was performed. This review, in part, provides information regarding the potential for groundwater to be contaminated and the potential pathways for contaminant transport.

Historical aerial photographs were examined to investigate the past use of the subject site and surrounding region. Other historical information, including building records, Assessor's information, city directory information, and Sanborn Fire Insurance Maps, were reviewed as available.

Person(s) knowledgeable about the subject site were interviewed to obtain any known information regarding site use(s) and potential environmental concerns.

Concurrent with our public and governmental agency interviews and literature research, a site reconnaissance of the property was conducted. The site reconnaissance was conducted in order to determine current uses of the site and the potential for soil and/or possible groundwater contamination based on aboveground visual observation.

During our research for this Phase I ESA, the County of San Bernardino Fire Department, Hazardous Materials Division (CSBFD-HMD) was contacted for information regarding permits for the subject site, underground storage tanks (USTs), hazardous materials incidents, and general information about the area to ascertain the past uses with respect to environmental concerns.

Federal, state, local, tribal, and proprietary lists and databases were reviewed to ascertain the presence of known environmentally impaired sites on the subject site or within the immediate area, and to determine their impact, if any, to the site.

As part of this Phase I ESA, a Vapor Encroachment Screen (VES) was conducted to determine if a vapor encroachment condition (VEC) exists, based on the information obtained during the Phase I ESA.

Concurrent Investigations

A Preliminary Geotechnical Investigation (PGI) was conducted by this firm concurrently with this Phase I ESA. This investigation included the placement of several exploratory soil borings and trenches. to a maximum depth of approximately 50 feet, over the subject site. Although done specifically to address the engineering properties of the onsite soils, no subsurface structures, unusual odors, or stained soils were noted. Surficial fill materials were observed in some exploratory tenches and boring. Neither groundwater nor bedrock were encountered in any of the soil trench or boring locations.

The detailed results and evaluation of our PGI will be submitted to the client under a separate report.

USER PROVIDED INFORMATION

ASTM E1527-13 defines a User as 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.

Under ASTM E1527-13 and AAI, specific tasks are assigned to the User that will help identify the possibility of RECs in connection with the property. These tasks do not require the technical expertise of an environmental professional and are generally not performed by environmental professionals performing a Phase I ESA. The User may provide the information gathered from these tasks, including the following:

- Any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law;
- Any activity and land use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law;
- Specialized knowledge or experience (that is material to RECs in connection with the property) of the User related to the property or nearby properties (for example, is the User involved in the same line of business as the current or former occupants of the property or an adjoining property so that the User would have specialized knowledge of the chemicals and processes used by this type of business);
- Relationship of the purchase price to the fair market value of the property if it were not contaminated (reason for significantly lower purchase price, such as contamination is known or believed to be present at the property);
- Commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases (such as the past uses of the property, specific chemicals that are present or once were present at the property, spills or other chemical releases that have taken place at the property, and any environmental cleanups that have taken place at the property);

- Any obvious indicators that point to the presence or likely presence of contamination at the property, based on the knowledge and experience of the User related to the property; and
- Other information, including the reason why the Phase I ESA is required and/or is being performed, the type of property and type of property transaction (sale, purchase, exchange, etc.), the complete and correct address for the property, the scope of services desired for the Phase I ESA, identification of all parties who will rely on the Phase I ESA report, identification of the site contact and how the contact can be reached, any special terms and conditions which must be agreed upon by the environmental professional, and any other knowledge or experience with the property that may be pertinent to the environmental professional (for example, copies of any available prior environmental site assessment reports, documents, correspondence, etc., concerning the property and its environmental condition).

A completed User Questionnaire was not provided by the User (client), however, the purpose for conducting this assessment is to determine if there are any RECs associated with the subject site, and identify potential areas of concern nearby, prior to purchase for commercial/industrial development of the subject site.

Environmental Cleanup Liens and Activity and Use Limitations

Under AAI and ASTM E1527-13, a search for environmental cleanup liens and AULs must be conducted, typically by the User. The subject site, whose researched historical use has included rural residential property, vacant land, agricultural use, including grove and dry farm land, and nursery use, did not appear in the state and/or federal liens, deed, or activity/use limitation databases in The Environmental Data Resources, Inc. (EDR) Radius Map™ Report with GeoCheck® (Appendix H), and the lack of records on file with the RWQCB and RCDEH do not indicate there are environmental cleanup liens or AULs associated with the subject site.

REVIEW OF EXISTING REPORTS

Provided for our use in preparing this Phase I ESA were copies of three (two drafts) Phase I reports conducted in 2016 for the subject site. A search of the Department of Toxic Substances Control (DTSC) online database revealed a Preliminary Environmental Assessment (PEA) report was done for the subject site in 2007. A summary of our review is provided below.

The Planning Center, Preliminary Environmental Assessment Report, Proposed High School No. 5, Located at the Southwest Corner of Redlands Boulevard and Fir Avenue, Moreno Valley, California, File No. WLC-01.o1B, Dated January 11, 2007.

The referenced PEA report, prepared by The Planning Center (TPC), was conducted for the Moreno Valley Unified School District and the DTSC. The PEA was conducted pursuant to the California Education Code which requires that all new school sites obtain a "No Further Action" (NFA) determination from the DTSC prior to proceeding with acquisition and/or construction.

The TPC Preliminary Environmental Assessment appears to have been done for all of the subject site except Parcels 005 through 0088, the current day Adam Hall's Plant Nursery. The TPC report indicated that based on historical aerial photographs, a portion of the subject site was used for agricultural purposes from at least 1938. In 1938, approximately 35 acres were used as an orchard, while the remainder of the site (approximately 29-acres) was used for dry land farming. The orchard remained on about 35 acres until approximately 1967, when it was reduced in acreage. In 1967, about 10 acres remained as an orchard until at least 1980. Two small, residential dwellings were present where the remainder of the orchard had been located. By 1989, no orchards remained on the site. The majority of the subject site has been dry land farmed for wheat and barley. Portions of the site were still dry land farmed.

Based on a TPC's review of historical aerial photos, several residential dwellings and associated structures had been located on the site. Soil sampling was conducted by TPC on the approximately 70 acre site, and was conducted in general accordance with the guidelines provided by the DTSC in *Interim Guidance for Sampling Agricultural Fields for School Sites (Second Revision)* (DTSC 2002), *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers* (DTSC 2006) and in the PEA Guidance Manual (DTSC 1999).

TPC obtained a total of 66 discrete soil samples (plus four duplicates) from 33 locations across the eastern portion of the subject site to assess historical agricultural operations. These soil samples were collected from approximately ground surface to 6 inches below ground surface (bgs) and from 2.5 to 3.0 feet bgs. The samples were composited into 16 samples and one discrete sample and analyzed for organochlorine pesticides by Environmental Protection Agency (EPA) Method 8081A. Two additional deeper soil samples were analyzed discretely for organochlorine pesticides following receipt of the

initial laboratory results. Five discrete soil samples (plus four background samples from 5.0 feet bgs) were analyzed for total metals (California Assessment Manual [CAM-17] metals) by EPA Methods 6010B/7471A. Thirteen discrete soil samples (plus one duplicate) were analyzed for arsenic by EPA Method 6010B. Five discrete soil samples were analyzed for lead by EPA Method 6010B. Forty discrete soil samples (plus six duplicates) were collected from 19 locations to assess the structures on the site. Ten composite samples (plus two composite duplicates) were analyzed for organochlorine pesticides to assess potential historical termiticide applications around the structures.

Following receipt of the initial results, in which elevated levels of Chlordane were detected around a portion of the residential structure addressed 28855 Fir Avenue, eight discrete samples were analyzed for organochlorine pesticides by EPA Method 8081A,. Thirty-eight discrete step-out samples were collected to determine the extent of the elevated Chlordane found at the residential structure addressed 28855 Redlands Boulevard (Parcel 00 4). Fifteen discrete step-out soil samples (plus three duplicates) were analyzed for organochlorine pesticides and nineteen discrete soil samples (plus three duplicates) were analyzed for lead. After the removal of 1.52 cubic yards of soil with elevated levels of Chlordane from the southwest side of the residence, five confirmation samples were collected and analyzed for organochlorine pesticides. However, DTSC requested an additional nine confirmation samples for pesticides be conducted. The 1.52 cubic yards of soil with elevated levels of Chlordane was disposed offsite at an appropriate facility.

TPC conducted a statistical analyses of soil sample results for the metals detected and found that all metals detected were within background concentrations except for zinc, which was slightly elevated.

Samples from the remainder of the site showed six organochlorine pesticides (4, 4' DDD, 4,4'-DDE, 4,4'-DDT, total chlordane, dieldrin and heptachlor epoxide) were detected at low concentrations but above the laboratory reporting limits. Zinc was also detected at an elevated level. TPC conducted a risk analysis for the six pesticides and zinc detected. Their risk analysis indicated the levels of Organochlorine Pesticides and Zinc detected at the subject site do not pose a significant risk to human health. In accordance with DTSC PEA guidance documents a human health risk assessment was conducted, which concluded that the noncarcinogenic hazard index and carcinogenic risk were below levels of concern.

TPC concluded and the DTSC concurred that after the removal of the elevated area of Chlordane, the results of the PEA indicated that a No Further Action (NFA) determination

for the subject site be granted and further investigation of the site was not necessary. A copy of the TPC Sample Location Map, Summary of Laboratory Test Results, and Site Specific Residential Hazard Index and Carcinogenic Risk Assessment are provided in Appendix G.

Partner Engineering and Science, Inc, Draft Phase I Environmental Site Assessment. Christian/Crozier, 28555 Fir Avenue, Moreno Valley, California, 92555, Client Reference No. 153933, Partner Project No. 15-1539331, Dated January 12, 2016.

The Draft Phase I ESA by Partner Engineering and Science Inc. (Partner) was conducted in general conformance with the scope and limitations as detailed in ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The Phase I ESA by Partner indicated the subject site consists of APNs 488-340-003, and 004 with associated addresses of 28855 Fir Avenue (Parcel 003) and 28555 Redlands Boulevard (Parcel 004). The subject site consists of 17.95 acres of vacant land formerly occupied by two residences and associated agricultural land. The subject property is designated for residential agriculture (RA2) development by the City of Moreno Valley.

Partner conducted a records search for the property and no environmental concerns or releases of hazardous substances or petroleum products within the site were found. Their search indicated environmental concerns and releases in the region appear to be insignificant with respect to the site or sufficiently distant from the site so as not to be a concern with respect to the proposed onsite development.

The Partner report indicated that the residence and outbuildings on Parcel 004 (28855 Redlands Boulevard were demolished in 2007. The residence and outbuildings on Parcel 003 (28555 Fir Avenue were demolished in 2015. Prior to their demolition a lead based paint (LBP) and asbestos survey was conducted. Lead and asbestos containing materials were found. The lead detected was bound in ceramic materials or in such low levels that no special removals were required prior to demolition. However, the asbestos containing material was removed prior to demolition and a permit for the non-friable removal of the asbestos containing material was issued by the South Coast Air Quality Management District prior to demolition. A non-hazardous waste manifest for the asbestos containing material was issued to the owner, Carol Epstein.

Partner concluded that the Phase I ESA has "revealed no evidence of recognized environmental conditions in connection with the subject property; however, environmental

issues were identified. Based on the conclusions of this assessment, Partner recommends the following: If redevelopment of the subject property is planned for residential use, sampling related to the agricultural use is recommended."

Partner Engineering and Science, Inc, Phase I Environmental Site Assessment. 46 Acres Total, APN 488-340-001, 002, 009, 010 and 011, Moreno Valley, California, 92555, Partner Project No. 16-156682.1, Dated February 29, 2016.

The Phase I ESA by Partner Engineering and Science Inc. (Partner) was conducted in general conformance with the scope and limitations as detailed in ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. *The Phase I ESA by Partner indicated the subject site* was currently undeveloped land with no onsite operations apparent. The subject site although noted to be undeveloped land had a few small concrete footings and scattered debris near what Partner described as the center of the site. An apparent water well and irrigation features as well as a few trees were noted near this "center" of the site.

Partner conducted a records search for the property and no environmental concerns or releases of hazardous substances or petroleum products within the site were found. Their search indicated environmental concerns and releases in the region appear to be insignificant with respect to the site or sufficiently distant from the site so as not to be a concern with respect to the proposed onsite development.

Partner concluded that the Phase I ESA has revealed the following evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. The Partner report recommended that "if redevelopment of the subject property is planned for residential use, sampling related to the agricultural use is recommended. A limited subsurface investigation should be conducted in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property. Partner recommends that a positive determination be made regarding the potential water well and if confirmed that the well is properly abandoned and decommissioned according to local requirements if there are no future plans to use the well."

Partner Engineering and Science, Inc, Draft Phase I Environmental Site Assessment, Adam Hall's Plant Nursery, 2891, 12915, 12925 & 12981 Redlands Boulevard, Moreno Valley, California 92555, Partner Project No. 16-166019.1, Dated July 19, 2016.

The Draft Phase I ESA by Partner Engineering and Science Inc. (Partner) was conducted in general conformance with the scope and limitations as detailed in ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The report indicated the subject site was currently occupied by Adam Hall's Plant Nursery and individual residents. In addition to the current residential structures, the subject site was also improved with an office building, several nursery shade and storage hut structures, a swimming pool/Jacuzzi, and paved and unpaved parking areas. The residential buildings were connected to five septic systems that are periodically pumped out on an as-needed basis. Two, 1,000-gallon diesel fuel, double-walled, steel, aboveground storage tanks (ASTs) were installed at the northern portion of the subject site approximately 6 months ago for fueling trucks and nursery equipment. In addition, limited volumes of herbicides, pesticides, and insecticides were stored at the subject property. An irrigation well was present at the nursery. Partners review of available historical sources, indicated "the subject property was formerly agricultural/residential as early as 1938 and developed for residential use and as a nursery from approximately the 1950s until the present. Tenants on the subject property have included individual residents, Ignacio Nursery and TNT Nursery, and Adam Hall's Plant Nursery (1989-Present)".

The Partner Phase I ESA for the subject site indicated an environmental concern of historical and current agricultural use and storage of agricultural related chemicals such as pesticides, herbicides, and fertilizers onsite. Based on the nature of the use of these chemicals and the partial residential development of the property, Partner concluded that the possible former and current uses of agricultural chemicals was not expected to represent a significant environmental concern. Another environmental concern was the age of the subject property building and the potential for asbestos-containing material (ACM) and/or lead-based paint (LBP) being present. Partner noted that "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".

Partner concluded that the Phase I ESA had revealed no evidence of recognized environmental conditions in connection with the subject property; however, environmental issues were identified. Based on the conclusions of their assessment, they recommended that if redevelopment of the subject property was planned for residential use, sampling related to the agricultural use was recommended.

GEOLOGY AND HYDROGEOLOGY

The site is located within the northern portion of the San Jacinto Valley. The site is located on the Perris block within the northern Peninsular Ranges geologic province of southern California. While the Perris block is considered to be a relatively stable structural block it is bounded by active faults. These include the Elsinore fault zone on the west, the San Jacinto fault zone on the east, and the Cucamonga fault zone on the north. The Perris block is underlain predominately by rocks of the Peninsular ranges batholith, a very large mass of crystalline igneous rocks of Cretaceous age and prebatholithic metasedimentary and metavolcanic rocks of older ages. The Perris block has a series of erosional surfaces, marked by low topographic relief and capped with unconsolidated alluvial sediments stripped from the surrounding highlands.

The Spring 2017 Cooperative Well Measurement Program Report, distributed by the Western Municipal Water District, the waster master for the area, there are four water wells in the area of the subject site. The wells are named the Lantz wells and were last measured in 2016 with a depth to groundwater of approximately 200 feet deep. Previous reports for the subject site indicated a well was onsite but there was no data as to the depth to groundwater for that well in these reports. Information provided by Adam Hall indicated groundwater was at a depth of approximately 120 feet deep when the well on his property was redug.

Based on the data we have gathered for the area, we would estimate the groundwater to be at ± 120 feet and flowing to the south following the natural topography of the area.

Radon

The United States Geological Survey (USGS) publication, Geologic Radon Potential of EPA Region 9, Open File Report 93-292-I, dated 1993, indicates the potential for radon to exceed the EPA (Environmental Protection Agency) action level of 4.0 picocuries per liter (pCi/L) in Riverside County is low. According to the California Department of Health Services database of indoor levels of radon by zip code, updated February, 2016, the zip code 92555, in which the subject site is located, had 7 tests conducted with one above 4.0 pCi/L at 4.5 pCi/L.

HISTORY OF SITE USAGE

To obtain a history of previous site usage, a search was conducted for historical aerial photographs, Sanborn Fire Insurance Maps, topographic maps, city building records, city directory information, and Assessor's parcel information. A representative of the owner of the subject site completed a questionnaire regarding their knowledge of the history of the site and its use, including with respect to environmental concerns.

Aerial Photograph Review

Electronic copies of aerial photographs provided by EDR, from 1938, 1949, 1953, 1961.1967, 1978, 1985, 1989, 1997, 2002, 2006, 2006, 2009, 2012, and 2016 were reviewed to investigate the past use of the subject site and the surrounding areas. Google Earth computer program (2017) historical aerial photographs and historical aerial photographs and topographic maps online at www.historicaerials.com (Nationwide Environmental Title Research, LLC [NETR], 2017) were also viewed to enhance our review. The following table provides a summary of the significant features/changes observed in the historical aerial photographs.

Historic Aerial Photograph Review Summary

Year	Observations	Source/Scale
1938	In this earliest photograph, approximately half the subject site (Parcels 003 through 009) are citrus grove. What appears to be a small residence is present in the southeast corner of Parcel 8 near Redlands and current day Encelia. There are two small storage shed sized structures located on the southeast corner of Parcel 002 but appear to be associated with the grove on Parcel 003. Another small structure is located on the north side of Parcel 002 at current day Eucalyptus Avenue. The exact nature of this small structure is unclear but may be irrigation related. The remainder of the subject site is vacant/dry farm land. Redlands Boulevard, current day Eucalyptus and Encelia Avenues are well-defined dirt roads present along the east, north and south, respectfully of the subject site. An unlined dirt channel (Quincey channel) borders the west side of the subject site. The surrounding properties are vacant or similar citrus grove.	USDA/1"=500'

1949	A residence has been constructed on both Parcel 003 and Parcel 007. A small barn or garage is now associated with the residence noted on Parcel 008 in the previous photograph. Some of the groves have been cleared on Parcel 008. The remainder of the subject site and immediate surrounding properties are largely the same as previously shown except for an increase in groves and associated residential housing in the area.	USDA/1"=500'
1953	The groves are thinning out on all the parcels except Parcel 009. There are now several outbuildings associated with the residence on Parcel 003 with two on the southeast corner of Parcel 002. Dirt roads are visible leading to these structures. A residence is now present on Parcel 005. Groves in the area are disappearing. The Kerr horse ranch is just beginning to be developed.	USDA/1"=500'
1961	The groves on Parcel 004 are now gone and what looks like the beginning of a horse ranch or similar type venture is underway with several corrals and associated structures including a hay barn present. The west portion of Parcel 004 is being farmed presumably for animal feed. Parcel 003 now has four 10-15 foot diameter above ground storage tanks (ASTs) present in the center of the parcel. These look like feed tanks. Most of the groves are gone on Parcels 005 through 008 with additional outbuildings now visible. The remaining parcels are still vacant/dry farm land. Redlands Boulevard now appears to be paved. Current day Eucalyptus and Encelia are still dirt roads. The Kerr horse ranch is present northeast and east of the subject site. The remaining surrounding properties are still vacant.	USDA/1"=500'
1967	Parcels 003 and 004 are essentially the same except for three of the four feed tanks present on Parcel 003 are now gone and some additional small structures are now present on these parcels. Additional small buildings are also now present on Parcel 006 and 007. Groves are still present, although thinning on Parcel 009. The remaining parcels to the east are still vacant/dry farm land. The property to the east of Parcel 004, across Redlands Boulevard, is part of the Kerr horse ranch. Interstate 60 is present further north of the subject site. The remaining properties in the area are vacant or grove.	USDA/1"=500'

1978	It appears as the horse or similar type ranching operations are no longer operating on Parcels 003 and 004, as many of their outbuildings are absent and large areas of the parcels are now vacant. No significant changes were noted on Parcels 004 through 008. If nursery operations are present they are small scale. The west half of parcel 009 is now void of groves and only the east approximate half have groves present. The remaining areas of the subject site are still vacant/dry farm land. The properties immediately surrounding the subject site are essentially the same.	USDA/1"=500'
1985	Parcels 003 has the residence and a few outbuildings remaining Parcel 004 only has the residence present. The rest of these parcels are vacant/dry farm land. Parcels 004 through 008 have the residential areas and outbuildings close to Redlands Boulevard with the rest of the parcels vacant. Parcel 009 has no more groves and is vacant/dry farm land as are the rest of the parcels to Quincey channel.	USDA/1"=500'
1989	The subject site and surrounding properties are essentially the same as previously shown. There is an increase in activity at the nursery property on Parcels 005 through 008, with additional structures and rows of plants visible. A rural residential property is located south of Parcels 010 and 011.	USDA/1"=500'
1997	The Nursery on Parcel 008 does not seem to be in operation as all the plants are gone. There is still nursery activity on Parcels 005 through 007 to the north. The remaining parcels are all essentially the same as in the previous aerial photograph. A small residential subdivision is being constructed south of the site across current day Encelia Avenue which has been paved.	USGS/1"=500'
2002	The subject site and surrounding properties are largely the same as previously shown. The nursery activities are now back on Parcel 008. The residential subdivision is being completed south of the subject site.	USGS-DOQQ/1"=500'
2006	The residence located in the northeast corner of Parcel 004 is now gone and the parcel is vacant. The remaining parcels and surrounding properties are essentially the same as previously shown.	USDA-NAIP/1"=500'
2009	The subject site and surrounding properties are essentially the same as previously shown. The Kerr horse ranch is now gone.	USDA-NAIP/1"=500'
2010	The subject site and surrounding properties are essentially the same as previously shown.	USDA-NAIP/1"=500'
2012	The subject site and surrounding properties are largely the same as previously shown. Current day Eucalyptus east of Redlands Boulevard has been paved.	USDA-NAIP/1"=500'

2016	The residence and outbuildings on Parcel 003 are no longer present. Except for the nursery on Parcels 005 through 008 the remainder of the site is vacant land. Current day Eucalyptus Avenue to the north of the subject site is now paved and Aldi distribution warehouse has been constructed on the north side of Eucalyptus Avenue	USDA-NAIP/1"=500'

Copies of the historical aerial photographs provided by EDR, with the approximate site boundaries shown, are provided in Appendix B.

Sanborn Fire Insurance Maps

No coverage of Sanborn Fire Insurance Maps was available for the subject site. The Certified Sanborn® Map Report from EDR is provided in Appendix C.

Historical Topographic Maps

Historical topographic maps of the quadrangle that includes the subject site, utilized from a Phase I ESA for adjoining property to the subject site, provided by EDR from 1901, 1942, 1943, 195, 1967, 1973, 1980, and 2012, were reviewed. The EDR Historical Topographic Map Report is provided in Appendix D.

The 1901 map, at a scale of 1:125,000, shows the subject site and surrounding region as vacant undeveloped land. The 1942 and 1943 maps, at a scale of 1:62.500, show a structure on Parcels 002 and 008. A dirt road is present along the north side of Parcels 003 and 004, the west side of Parcel 003 and south side of Parcels 011 and 012, ending at the Quincey channel. Groves are present on the east portion of the subject site.

The 1953 map, at a scale of 1:24,000, shows groves on the east portion of the subject site. Three residential structures are present along Redlands Boulevard (Parcels 005 through 008) and on Parcel 3. Two outbuildings are also shown on Parcel 003. One is very long like a pole barn. The 1967 map, at a scale of 1:24,000, shows a new outbuilding on Parcel 003 and a residence in the northeast corner of Parcel 004. The groves appear to be gone from the subject site. No other significant changes to the subject site were noted. The 1973 map, at a scale of 1:24,000, showed no significant changes to the subject site.

The 1980 map, at a scale of 1:24,000, shows five new outbuildings on Parcel 003 and Parcel 008. The remainder of the subject site are largely the same. The 2012 map, at a scale of 1:24,000, does not show structural or other related features, except for

infrastructure. Copies of the historical Topographic Maps provided by EDR, with the approximate site boundaries shown, are provided in Appendix D.

Assessor's Parcel Information

The subject site is comprised of APNs 488-340-002 through -012 These parcels comprise approximately 70 acres with associated addresses of, 28855 Fir Avenue (Parcel 003), 28855 Redlands Boulevard (Parcel 004), 12891 Redlands Boulevard (Parcel 005), 12915 Redlands Boulevard (Parcel 006), 12925 Redlands Boulevard (Parcel 007) and 12981 Redlands Boulevard (Parcel 008).

The online County of Riverside Geographic Information System was used to generate a parcel report which includes a list of building permit cases (County of Riverside, 2019). The County of Riverside Transportation and Land Management Agency online services was utilized to research the permit cases, including dates of permit issuance and/or approval. The building permit cases, issued from 1965 to 1984, are presented in the following table:

Online Riverside County Building Records		
Date	**Address**	**Description**
2/3/65	12925 Redlands	Repair of Dwelling from Explosion
2/15/73	12915 Redlands	Gas Line
6/1/73	12891 Redlands	Convert to Natural Gas (Cancelled)
9/12/73	12925 Redlands	New Electric Service
12/3/73	28855 Fir	Convert to Natural Gas
4/14/75	12981 Redlands	Gas Pipe
2/13/75	12925 Redlands	Barn Registration
2/13/75	12925 Redlands	Electrical for Ag Barn
11/3/81	12981 Redlands	Mobile Home Site Prep
11/3/81	12981 Redlands	Temp Power Pole and Const. Trailer
11/3/81	12981 Redlands	Garage Demolition
11/3/81	12981 Redlands	Demolition
9/28/82	12981 Redlands	MH Patio Cover and Screen Enclosure

1/17/84	12981 Redlands	Repair as per Special Inspection
6/26/84	12981 Redlands	Rewire Garage and Add Subpanel

The Riverside County parcel report did not included environmental health permits, such as on-site septic system. The City of Moreno Valley Building Department was not contacted for building permits as the previous Phase I reports for the subject site included that information. Our interview with Mr. Adam Hall indicated the only significant changes to the nursery property, from an environmental perspective, were the removal of the two 1,000 gallon diesel AGSTs.

City Directory Information

Historical city directory information was requested from EDR, for the subject site addresses and nearby properties. The information provided by EDR for the subject site included the years 1975 through 2014.

City Directory information for the address of 28855 Fir Avenue showed residential occupancy only. In 1975 Paul Byers was listed as the occupant and in 1980 the occupancy changed to Gary Faulkner. In 1985 the occupant was listed as F. Klingenmaier. In 1990 the occupant listing was Randy Chastain. There was no listing in 1995. In 2000 the occupant was listed as Jackson Latham. The last listing in 2005 was for K. Ahearn.

In earliest City Directory information for Redlands Blvd., was 1985 with 12891, 12925, and 12981 Redlands Blvd., occupied by Roy Richardson, John Clark, and Chas Polk, respectfully. In the 1990 City Directory listings 12981 Redlands was still Roy Richardson and 12925 was still John Clark, 12915 was listed with J Waltner as the occupant and 12981 was listed as Libero Segat and TNT Nursery. 28855 Fir Ave. was listed with three individuals.

In the 1995 City Directory listings 12981 Redlands was still Roy Richardson. The addresses of 12915 and 12981 Redlands were occupied by Steve Emerson and Antonio Gonzales, respectfully. The address of 12981 was now listed as Ignacio Nursery. In 2000 the City Directory lists Roslyne Hall (Hall's Nursery) as the occupant at 12981 Redlands. The other Redlands addresses are listed as unknown occupant or not listed at all.

The 2005 City Directory listed both 12915 and 12981 Redlands as belonging to Adam or P. Hall. 12925 was listed with Manuel Ignacio as the occupant.

There was no listing for the subject site in 2010. In 2014 there was only one listing for Adam Hall and ML Hall Construction at 12915 Redlands.

Based on our review of the City Directory listings it appears the subject site was residential from 1975 with individual occupancy of the buildings with the beginnings of a nursery business after 1985 on Parcels 005 through 008. There is no indication of any commercial businesses, except the nursery, being on the subject site.

The EDR-City Directory Image Report is provided in Appendix E.

Interview

During our site reconnaissance of Adam Hall's Plant Nursery on February 20, 2019 we interviewed Adam Hall the property owner. Adam Hall lives on the property at 12925 Redlands, with family members occupying the residences addressed 12891, and 12915 Redlands. A nursery worker occupies the residence addressed 12981 Redlands. He has operated the nursery since approximately 1997. Previously the nursery business was operated by TNT and Ignacio. Adam thought the nursery had been there from at lest the 1970s. All the residences are on individual sewage disposal (septic) systems.

Onsite fueling is no longer conducted and he indicated they removed the diesel fuel above ground storage tanks (AGSTs) over a year ago and went back to obtaining fuel from local gas stations. He was unaware of any under ground storage tanks on the property.

Vehicle maintenance is done by an outside company. Pesticide usage at the site was Roundup for weed and grass control around the grounds and Dimension 270-G a pre-emergent is used in the pots prior to planting and then on top pf the potting soil.

The water well onsite was redug in the early 2000's and he believed it was about 380 feet, with ground water at approximately 120 feet deep.

SITE RECONNAISSANCE

A site reconnaissance was conducted on February 13th and 20th, 2019, by Mr. M. Kevin Osmun of this firm. To orient our site reconnaissance, a copy of the Assessor's Parcel Map and a recent color aerial photograph were obtained for our reference. Copies of the Assessor's Parcel Map and recent color aerial photograph are presented on Enclosures A-2 and A-3, respectively, within Appendix A.

The subject site consists of eleven parcels, APNs 488-340-002 through -012, which total approximately 72 acres. Parcels 002 through 004 and 009 through 012 are currently vacant land and encompass approximately 64 acres. Parcels 005 through 008 (approximately 8 acres) are occupied by residences and Adam Hall's Plant Nursery.

Eucalyptus (formerly Fir) Avenue borders the subject site to the north followed by Aldi Grocery Warehouse. To the east is Redlands Boulevard followed by vacant land, to the south is Encelia (formerly Eucalyptus) Avenue, followed by single family residential and vacant land. To the west of the subject site is the Quincey Channel followed by warehouse properties. The topography of the subject site is relatively planar with an overall slope to the southeast. No surface drainage or impoundment features were noted on the subject site. Drainage features and subsurface utilities are associated with some of the adjacent roadways.

As the subject site consists predominately of vacant land and Adam Hall's Plant Nursery on the remaining acreage, these two distinct areas are discussed separately below.

APN 488-340-002, -003, -004, -009, -010, -011, and -012

These 7 parcels total approximately 64 acres and are currently vacant land which has been recently disced. Site vegetation is sparse consisting mostly of grass and weeds. Trees are located near the intersection of parcels 002, 003, 009, and 010 and along the west property line. No structures are presently on these parcels. however there are remnant fencing and pieces of concrete on parcels 003 and 004 from prior the demolition of residences and outbuilding associated with parcels. Additional structure remnants, from former outbuildings, are located near the intersection of parcels 002, 003, 009, and 010, which include concrete, brick and wooden foundations. Also noted in this area are irrigation standpipe and a potential well. The potential well consist of an approximate 2 foot square concrete slab with an approximate 2 inch steel pipe protruding from the center of the slab. The pipe is capped with a small piece of vitrified clay pipe and concrete. Sheet metal, concrete, and wood are scattered about this area. One empty rusted and crushed 55-gallon drum was also noted in this area.

A minor amount of household trash and debris was noted on the west portion of the subject site. The household trash and debris consisted of mattresses, BBQ, tires, wood, paper and cardboard. Construction debris consisting of large piles of concrete is also present along the west property boundary. All the trash and debris noted on the subject site appears suitable for disposal in a municipal landfill.

These seven parcels are bordered by Redlands Blvd., to the east, Eucalyptus Ave. (formerly Fir Ave.) to the north, and Encelia Ave. to the south, all asphalt paved two lane roadways. No power poles/transformers are present along that border the subject site. To the west is Quincey Channel an earthen drainage feature approximately 6 feet deep. Shallow concrete and earthen drainages are present adjacent Redlands Blvd., and a portion of Eucalyptus Ave.

Adam Hall's Plant Nursery

The Adam Hall's Plant Nursery encompasses parcel 005 through 008, approximately 8 acres. Four residences are present along Redlands Blvd. The oldest residence addressed 12981 was built prior to 1938. The remaining residences were built in the 1940's and 1950's. Each residence has an associated garage and in most cases a small storage shed. The residential areas are landscaped with trees, bushes and grass. One residence has a pool. The garage associated with the residence addressed 12981Redlands is partially destroyed and has stored household items. A small shed north of this garage has four 5-gallon buckets, one empty, one full and two partially full of waste oil.

The nursery is generally located behind the residences and parking lot with access off Redlands Boulevard. The parking lot is near the center of the site and is both dirt and concrete. A concrete walkway from the parking lot leads to a small wood office, which contains desks, chairs and files. Small to medium sized sheds and a garage are located west and south of the office building. These contain nursery related materials such as signs, plastic wrap, buckets of PVC fittings, a battery, hoses, small tools, some automotive products, cardboard and plastic storage boxes/containers. The nursery is crisscrossed with dirt access roads with potted and boxed plants and trees on both sides, Some shade cloth and plastic covered plant growing strictures are also present throughout the site. Bags of potting soil on pallets were also noted.

Near the center of the nursery is the pesticide storage shed, an approximate 6'X10' wooden structure. The shed is locked with bags and containers of the herbicides Roundup and Dimension 270-G. North of the pesticide storage shed is the water well and a 20 foot steel container. The water well has four bladder tanks and three large holding tanks associated with it. The water well has an electric pump. The 20 foot steel container easterly of the water well has stored 5-gallon buckets of paint, power washer, generator, welder, and numerous small parts, and 1 gallon containers of PVC glue. East of this container is a pallet of urea for diesel engine emission use. Connected to the south side of the container is a wooden work bench with several batteries on it. Numerous empty to partially

full plastic fuel containers were also noted. This area appears to be a small maintenance area based on the materials present as well as two small tractors present. No indication of any soil staining form automotive fluids was noted in this area.

In the southwest portion of the nursery are stockpiles of mulch, soil with debris, concrete blocks, and landscape pots. In the west-center portion of the nursery is the start of a bunker area constructed of large concrete locks. The bunkers when completed will store sand, gravel, rock and other nursery materials. North of this bunker area is a roll off bin for green waste and a small storage shed. A partial chain link fence separates this area from the northwest portion of the nursery.

In the northwest portion of the nursery are stored nursery materials and equipment such as shade cloth, steel and PVC pipe, concrete mixer, chain link fencing, various sized pots and containers, and two empty plastic 55-gallon drums. Also present are truck trailers and 20 foot steel containers and a shed. The steel containers and shed contain household stored items such as tires, rims, motorcycle, furniture, shelving, paint cans, generator, tools and a safe.

No significant amounts of stored household hazardous materials or automotive related fluids were noted on the subject site.

Adjoining Properties

The subject site is located in a mixed residential and commercial area. The subject site is bordered to the west by the Quincey Channel followed by newly constructed commercial buildings. To the north is Eucalyptus Avenue followed by Aldi, a grocery chain, warehouse. To the south is Encelia Avenue followed by single family residential and vacant land. To the east is Redlands Boulevard followed by vacant land.

Observations of the properties adjoining the site did not reveal any potential sources of above ground contamination which would adversely impact the subject site.

Color photographs of the subject site and adjoining properties are provided within Appendix A.

REGULATORY AGENCY RECORDS REVIEW

For records relating to environmental compliance and hazardous materials/waste within the County of Riverside Department of Environmental Health (RCDEH), generally acts as the lead agency. The California Regional Water Quality Control Board, Santa Ana Region (RWQCB) or RCDEH may be the lead agency for soil and groundwater investigations and remediation.

RCDEH

A request to review records for the subject site addresses of 28855 Fir Avenue, 12891, 12915, 12925. 12981, and 28855 Redlands Blvd., was emailed to the RCDEH and in letters dated January 31, 2019, the RCDEH indicated that no records were found for these site addresses. A copy of the RCDEH records response letters are provided in Appendix F.

RWQCB

A request to review records for the subject site addresses of 28855 Fir Avenue, 12891, 12915, 12925. 12981, and 28855 Redlands Blvd., was emailed to the RWQCB and in an email response dated February 5, 2019, the RWQCB indicated that no records were found for the site addresses provided.

SCAQMD

The South Coast Air Quality Management District (SCAQMD) online Facility Inventory Detail (FIND) database provides public information on facilities regulated within the SCAQMD jurisdiction. A review of this database did not list any of the property addresses. However, under the Review of Existing Reports section of this report a SCAQMD Rule 1403 Form was submitted by Air Demolition & Environmental Service on May 6, 2015 for asbestos removal at 28855 Fir Avenue. A non-hazardous waste manifest for the disposal of the non-friable asbestos, dated May 27, 2015, is on file with the DTSCs Hazardous Waste Tracking System (HWTS) for the subject site.

RCACO

The Riverside County Agricultural Commissioner's Office (RCACO) was contacted for a listing of all restricted pesticides used by Adam Hall's Plant Nursery or the other nurseries

located at the subject site. In an email response, dated February 8, 2019 they provided a spreadsheet of the restricted pesticides used by Adam Hall's Plant Nursery from February 2015 through August 2018, the extent of the time frame they retain records. Their records indicate Adam Hall's Plant Nursery used Roundup Promax Herbicide and Dimension 270-G. Both these herbicides are restricted because of their hazardous nature and should be handled and applied by professionals.

ENVIRONMENTAL DATABASE REVIEW

EDR was contacted to provide an environmental database search for the subject site. The database search provides information regarding landfills, USTs, hazardous waste generators, etc., at the subject site and surrounding properties in accordance with ASTM Standards and AAI. Five mapped sites were found in EDR's search of available government records within the respective search radii. Two of the sites listed in the EDR database were on the subject site. A description of the database findings is presented in the following sections of this report.

A copy of the EDR database report, which provides a complete list of the federal, state, tribal, and proprietary records searched, is provided in Appendix E.

ENVIROSTOR

The California DTSC Site Mitigation and Brownfields Reuse Program's ENVIROSTOR database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. There are four school sites listed in this database, within one mile of the subject site. All four sites are listed as requiring "No Further Action". The closest school site listed was Eucalyptus School Site #5 which incorporates Parcels 002 through 004 and 009 through 012 of the subject site and is discussed in detail under the Review of Existing Reports section of this report. This school site was also listed in the DTSC's School Property Evaluation Program database. These listed school sites, based on their "no further action" determination, should have no adverse environmental impact to the subject site.

CHMIRS

The California Hazardous Materials Incident Reporting System (CHMIRS) database contains information on reported hazardous materials accidental incidents (releases or spills). The subject site address of 28855 Redlands Boulevard was listed on this database. This residence which was located near the corner of Eucalyptus and Redlands on Parcel 004. According to the CHMIRS report on October 12, 1998, Riverside County Fire Department responded to a clean up during a DTSC drug lab bust. According to the report the drug lab waste consisted of 10 gallons of waste and was contained and removed by the Riverside County Fire Department. No spill or release was indicated in the report and no adverse environmental impact to the subject site is anticipated due to this removal and disposal of drug lab waste.

HAZNET

The HAZNET database is extracted from the copies of hazardous waste manifests received each year by the DTSC. In 2007 asbestos containing material (ACM) was removed from the residence addressed 28855 Redlands Boulevard during demolition activities. The ACM was transported offsite and properly disposed of and does not present any adverse environmental impact to the subject site.

Orphan Summary

The Orphan Summary within the EDR database report, which is a list of all sites whose location is not readily identified (mapped), and may be near the subject site, was reviewed. No sites are listed in the Orphan Summary.

Other Databases

The following online databases were also reviewed as part of the environmental Database review.

Division of Oil, Gas, and Geothermal Resources

The California Division of Oil, Gas, and Geothermal Resources (DOGGR) maintains a list of all producing and abandoned oil and gas wells within the State of California. We reviewed the online DOGGR Well Finder, which indicates no abandoned or producing geothermal or gas and/or oil wells have been located within 1 mile of the subject site

(DOGGR, 2018). The closest oil well (approximately 1.1 miles northeast), is labeled (Reid) and was advanced by the Perris Oil Co. to a depth of 3,711 feet bgs in 1956, and is identified as a plugged and abandoned dry hole.

DTSC HWTS

We researched the online DTSC Hazardous Waste Tracking System (HWTS) which is a database of hazardous waste generator information. Under 28855 Redlands Boulevard there is a manifest for 2.5 tons (1.52 cubic yards) of contaminated soil removed from the site in 2006 and a manifest for the removal of asbestos containing material in 2007. This information corresponds to previously determined information on this address and reported in detail in other sections of this report.

VAPOR ENCROACHMENT EVALUATION

As part of this Phase I ESA, a VES was conducted to determine if a VEC exists, based on the information obtained during the Phase I ESA. A VEC is the presence or likely presence of chemicals of concern (COC) vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or groundwater either on or near the target property (i.e., subject site).

Vapor Encroachment Screen

A Vapor Encroachment Screen (VES), comprised of Tier 1 screening, was conducted by this firm for the subject site. The VES was conducted in general accordance with the Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, ASTM E2600-15. Although not required to satisfy the requirements of the Phase I ESA under ASTM E1527-13, ASTM E2600-15 was chosen as a methodology to evaluate potential contaminant vapor concerns at or adjoining the subject site.

The subject site use has historically included agricultural, groves, dry farm, nursery and residential The site is located in a mixed, residential and commercial area. The subject site and surrounding area are underlain by unconsolidated alluvial materials. The groundwater beneath the subject site, is estimated to be approximately 120 feet bgs, and is not considered a potential source of vapor into the subject site.

Based on the results of Tier 1 screening, utilizing The EDR Radius Map™ Report with GeoCheck® and research of the history of the subject site and nearby properties, there are

no sites within 0.33 mile with current and/or former potential sources of soil vapor intrusion or encroachment, such as leaking (current or former) USTs, dry cleaners, etc., including sites involving only hydrocarbon chemicals of concern. Based on the results of the VES, Tier 1 screening, a VEC at the subject site can be ruled out.

DATA GAPS

Under AAI and ASTM E1527-13, data gaps that remain after the conduct of all required activities must be identified. The source of information consulted to address the data gaps should be identified, and the significance of the data gaps with respect to our ability to identify conditions indicative of releases or threatened release of hazardous substances on, at, in, or to the property should be addressed.

There are no significant data gaps remaining after our conduct of AAI and ASTM E1527-13.

CONCLUSIONS AND RECOMMENDATIONS

During future grading or excavation at the subject site, fill materials and/or disturbed soils will be encountered. Subsurface utility lines and subsurface structures, including old irrigation lines and septic systems associated with the current and former residences should be expected. The water well associated with the nursery and any other water wells present on the subject site should be abandoned in accordance with the County of Riverside, Department of Environmental Health policies and procedures.

Only household quantities of hazardous materials and a minor amount of automotive related hazardous waste (waste oil) was observed on the nursery property. These should be disposed of/recycled at a licensed hazardous waste disposal/recycling facility.

During the Preliminary Environmental Assessment conducted by The Planning Center (TPC) for the Moreno Valley Unified School District and Department of Toxic Substance Control, soil samples were obtained in areas of the former citrus groves and structures (residential and outbuildings) on all of the subject site except the nursery property. TPC conducted a statistical analyses of soil sample results for the metals detected and found that all metals detected were within background concentrations except for Zinc, which was slightly elevated. After the removal of 1.52 cubic yards of soil from a portion of the residential structure addressed 28855 Redlands Boulevard, which had Chlordane at a maximum concentration of 2.4 mg/kg, samples from the remainder of the site showed six

Organochlorine Pesticides present at low concentrations but above the laboratory reporting limits. The maximum concentration of the six organochlorine pesticides remaining at the subject site was; 0.006 mg/kg of DDD, 0.190 mg/kg of DDE, 0.110 mg/kg of DDT, 0.33 mg/kg of total Chlordane, 0.007 mg/kg of Dieldrin and 0.005 mg/kg of Heptachlor Epoxide. These were the concentrations used in the TPC risk analysis. TPC's risk analysis, which was based on residential land use, indicated the levels of Organochlorine Pesticides and Zinc remaining at the subject site do not pose a significant risk to human health and that the noncarcinogenic hazard index and carcinogenic risk were below levels of concern. If this data is applied to the nursery, which had a similar history of site use then this data and conclusions should be applicable. The Chlordane detected at a maximum concentration of 2.4 mg/kg adjacent a portion of the residence addressed 28855 Redlands Boulevard, if applied to the nursery structures is below the Environmental Protection Agency (EPA) November 2018, Regional Screening Levels of 7.7 mg/kg for industrial soil. However, if the property is to be developed residentially then soil sampling for Organochlorine Pesticides and metals at the nursery property should be conducted.

We have performed this Phase I ESA Update in accordance with ASTM E1527-13 and AAI for the approximate 70 acre property (APNs 488-340-002 through -012), located on the southwest corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California. Based on the findings of this Phase I ESA, and with consideration given to the recommendations contained in this report, (1) the subject site exhibits no evidence of recognized environmental conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site that would prohibit its intended use as a commercial/industrial development, and (2) no further tests or investigations are recommended.

STATEMENT OF QUALIFICATIONS

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

Mr. M. Kevin Osmun has conducted hundreds of Phase I Environmental Site Assessments, as well as numerous Phase II Environmental Site Assessments and remediation projects, primarily remedial excavation. Mr. Osmun has over 36 years experience in the geotechnical and environmental fields.

LOR Geotechnical Group, Inc. is one of three firms that previously provided report review for underground storage tank closure for the County of San Bernardino, Fire Department Hazardous Materials Division.

Mr. Osmun holds a B.S. in Geology and is a registered Civil Engineer in the State of California.

LIMITATIONS

This report was prepared solely for the use and benefit of LOR's client, Brixton Capital and their designates. They may release this information to third parties, who may use and rely upon this information at their discretion. However, any use of or reliance upon this information by a party other than Brixton Capital and their designates, shall be solely at the risk of such third party and without legal recourse against LOR Geotechnical Group, Inc.; its subsidiaries and affiliates; or their respective employees, officers, or directors; regardless of whether the action in which recovery of damages is sought is based upon contract, statute, or otherwise.

The content and conclusions provided by LOR in this assessment are based on information collected during our investigation, which may include, but is not limited to, visual site inspections, interviews with the site owner, regulatory agencies and other pertinent individuals, a review of available public documents, and our professional judgement based on said information at the time of preparation of this document. Any subsurface samples results and observations presented herein are considered to be representative of the area of investigation; however, soil conditions may vary between sample locations and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which may vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the conclusions of this report.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. LOR Geotechnical Group, Inc., (LOR) is not responsible for the accuracy of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report, and the interpretation of such data based upon our experience and background, and no warranty, either expressed or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

TIME LIMITATIONS

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they be due to natural processes or the work of man on this or adjacent properties. In addition, changes in the Standards-of-Practice and/or Governmental Codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control. Therefore, this report should not be relied upon after a significant amount of time without a review by LOR Geotechnical Group, Inc., verifying the suitability of the conclusions and recommendations.

CLOSURE

We declare 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 part 312.

We appreciate this opportunity to be of service and trust this report provides the information desired at this time. Should questions arise, please do not hesitate to contact this office.

Respectfully submitted,
LOR Geotechnical Group, Inc.

M. Kevin Osmun, CE 55116

John P. Leuer. President

MKO:MLH\ss

Distribution: Addressee (2) and PDF

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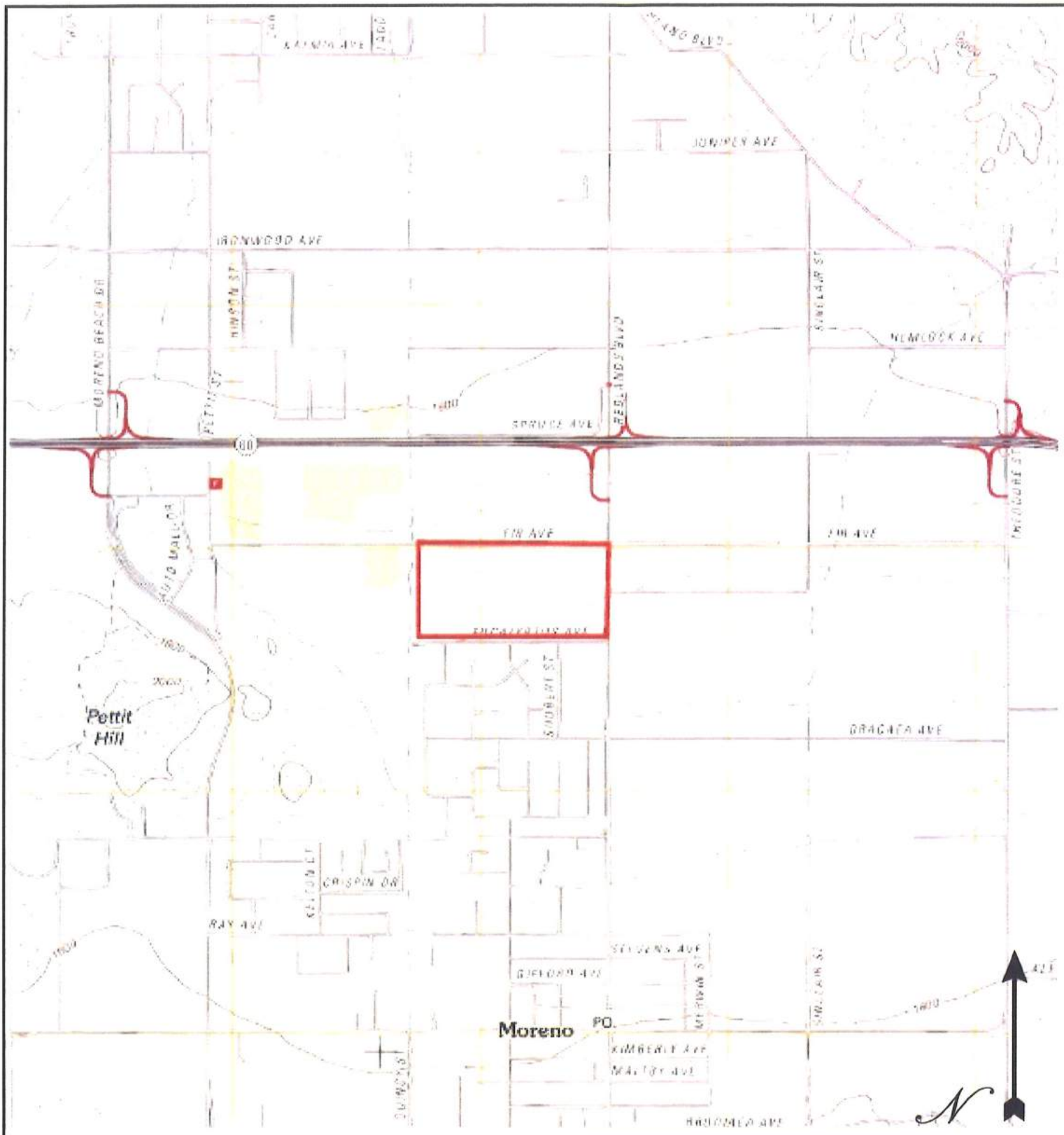
APPENDIX A

Index Map, Assessor's Parcel Map, Recent Color Aerial Photograph, and Color Photographs

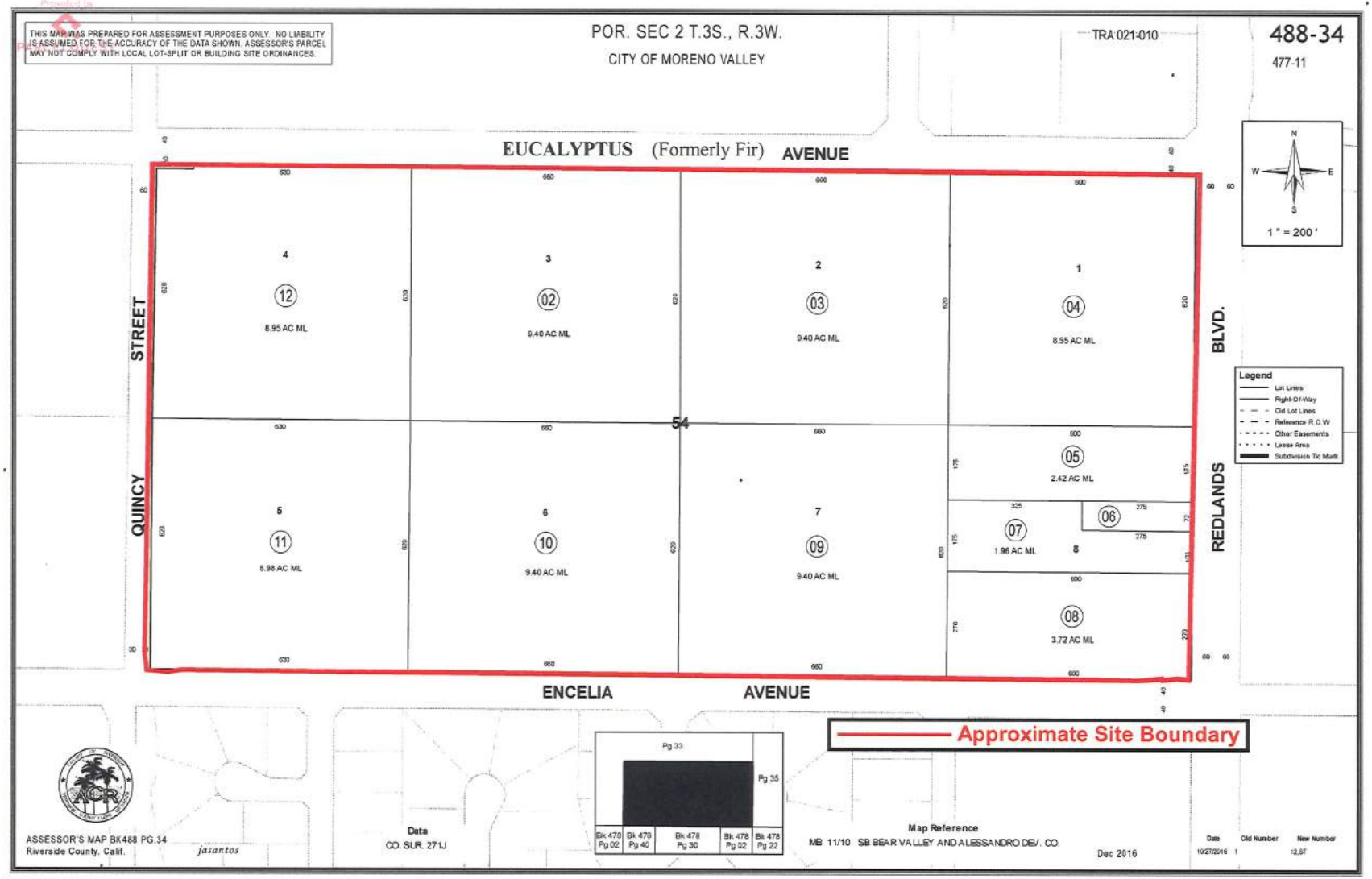


Basemap Source: Environmental Data Resources, Inc. Online Lightbox™

Approximate Site Boundary

INDEX MAP

PROJECT:	SWC EUCALYPTUS AVE. AND REDLANDS BLVD., MORENO VALLEY, CA	PROJECT NO.:	23513.2
CLIENT:	BRIXTON CAPITAL	FIGURE:	1
LOR Geotechnical Group, Inc.		DATE:	FEBRUARY 2019
		SCALE:	1" ~ 1,700'



Basemap Source: ParcelQuest Lite Online (https://assr.parcelquest.com/Home)

ASSESSOR'S PARCEL MAP

PROJECT:	**APPROX. 70 ACS, SWC EUCALYPTUS AVE. AND REDLANDS BLVD., MORENO VALLEY, CA**	**PROJECT NO.:**	**23513.2**
CLIENT:	**BRIXTON CAPITAL**	**FIGURE:**	**2**
		DATE:	**FEBRUARY 2019**
LOR Geotechnical Group, Inc.		**APPROX. SCALE:**	**1" ~ 300'**

RECENT COLOR AERIAL PHOTOGRAPH

PROJECT:	APPROX. 70 ACS, SWC EUCALYPTUS AVE. AND REDLANDS BLVD., MORENO VALLEY, CA	PROJECT NO.:	23513.2
CLIENT:	BRIXTON CAPITAL	FIGURE:	3
LOR Geotechnical Group, Inc.		DATE:	FEBRUARY 2019
		APPROX. SCALE:	1" ~ 240'

Photos for APNs 488-340-002, -003, -004, -009, -010, -011, and -012

PHOTO 1 VIEW FACING SOUTH FROM NEAR THE NEC OF PARCEL 004 SHOWING THE SITE TO THE RIGHT (WEST) AND REDLANDS BLVD. TO THE LEFT. A CONCRETE RIBBON GUTTER IS PART OF THE DRAINAGE ALONG REDLANDS BLVD. IN THE BACKGROUND IS HALLS NURSERY.

PHOTO 2 VIEW FACING SOUTHEASTERLY LOOKING ACROSS THE SITE FROM THE NEC SHOWING THE VACANT PARCELS, SPARSE VEGETATION AND RECENTLY DISCED CONDITION. CONCRETE PIECES ARE FROM FORMER STRUCTURE DEMOLITION IN THIS AREA.

PHOTO 3 VIEW FACING WEST FROM THE NEC OF PARCEL 004 SHOWING EUCALYPTUS AVE. AND SHALLOW DRAINAGE TO THE RIGHT (NORTH) AND THE SITE TO THE LEFT. ALDI WAREHOUSE IS VISIBLE FURTHER NORTH.

PHOTO 4 VIEW FACING NORTH FROM THE SEC OF PARCEL 004 SHOWING THE SITE TO THE LEFT (WEST) WITH REMNANT FENCING. REDLANDS BLVD. IS PRESENT TO THE RIGHT WITH THE CONCRETE AND EARTHEN DRAINAGE VISIBLE.

PHOTO 5 VIEW FACING NORTHWESTERLY LOOKING ACROSS THE SITE FROM THE SEC OF PARCEL 004 SHOWING THE VACANT PARCELS, RECENTLY DISCED.

PHOTO 6 VIEW FACING WEST FROM THE SEC OF PARCEL 004 SHOWING THE VACANT PORTION OF THE SITE TO THE RIGHT (NORTH) AND HALLS NURSERY TO THE LEFT.

PHOTO 7 VIEW FACING EAST FROM THE NWC OF PARCEL 012 SHOWING THE SITE TO THE RIGHT (SOUTH) AND EUCALPTUS AVE. TO THE LEFT WITH ALDI WAREHOUSE FURTHER LEFT.

PHOTO 8 VIEW FACING SOUTHEASTERLY LOOKING ACROSS THE SITE FROM THE NWC OF PARCEL 012 SHOWING THE SITE. MINOR HOUSEHOLD TRASH IS VISIBLE IN THE FOREGROUND.

PHOTO 9 VIEW FACING SOUTH FROM THE NEC OF PARCEL 012 SHOWING THE SITE TO THE LEFT (EAST) AND THE QUINCEY CHANNEL TO THE RIGHT. CONSTRUCTION AND SOME MINOR HOUSEHOLD DEBRIS AND TRASH IS PRESENT ALONG THIS SITE BOUNDARY.

PHOTO 10 VIEW OF MATTRESS AND BOX SPRINGS DUMPED ALONG THE WEST SIDE OF PARCEL 012. IN THE BACKGROUND IS CONSTRUCTION WASTE (CONCRETE).

PHOTO 11 VIEW FACING NORTH SHOWING ADDITIONAL CONCRETE DUMPED ALONG THE WEST SIDE OF PARCEL 011 AND THE QUINCEY CHANNEL.

PHOTO 12 VIEW FACING EAST FROM THE SWC OF PARCEL 011 SHOWING THE SITE TO THE LEFT (NORTH) AND ENCELIA AVE. AND SINGLE FAMILY RESIDENTIAL TO THE RIGHT. A SEWER MANHOLE IS VISIBLE IN THE FOREGROUND.

PHOTO 13 VIEW FACING NORTHEAST FROM SEC OF PARCEL 011 LOOKING ACROSS THE VACANT PORTION OF THE SITE . IN THE MIDDLE OF THE PICTURE ARE THE TREES ASSOCIATED WITH PARCELS 002, 003, 009 AND 010. ALDI WAREHOUSE IN BACKGROUND.

PHOTO 14 VIEW FACING NORTH FROM THE SEC OF PARCEL 011 SHOWING THE SITE TO THE RIGHT (EAST) AND QUINCEY CHANNEL TO THE LEFT. IN THE FOREGROUND IS CONSTRUCTION DEBRIS (CONCRETE). IN THE BACKGROUND IS ALDI WAREHOUSE TO THE RIGHT AND ANOTHER WAREHOUSE TO THE LEFT.

PHOTO 15 VIEW FACING NORTH FROM THE SWC OF PARCEL 009 SHOWING HALL'S PLANT NURSERY TO THE RIGHT AND THE VACANT PORTION OF THE SITE TO THE LEFT.

PHOTO 16 VIEW FACING NORTHWESTERLY FROM THE SEC OF PARCEL09 SHOWING THE SITE WITH THE REMNANT TREES NEAR THE INTERSECTION OF PARCELS 002, 003, 009 AND 010.

PHOTO 17 VIEW FACING EAST FROM THE INTERSECTION OF PARCELS 002, 003, 009 AND 010 SHOWING THE IRRIGATION STANDPIPE IN THIS AREA AND REMNANT FENCING. SHEET METAL AND WOOD FROM PRIOR STRUCTURES IS ALSO VISIBLE. HALLS NURSERY IS IN THE BACKGROUND.

PHOTO 18 VIEW OF ONE OF THE REMNANT FOUNDATIONS PRESENT IN THE AREA OF THE INTERSECTION OF PARCELS 002, 003, 009 AND 010. THROUGH THE PEPPER TREE IS A WOODEN FOUNDATION.

PHOTO 19 VIEW FACING EAST SHOWING THE WOODEN FOUNDATION NOTED IN THE PREVIOUS PHOTOGRAPH.

PHOTO 20 VIEW OF A WELL REPORTED IN PREVIOUS ENVIRONMENTAL STUDIES FOR THE SITE LOCATED ON THE WEST SIDE OF THE PEPPER TREES AT THE INTERSECTION OF PARCELS 002, 003, 009 AND 010. THE PIPE IS APPROXIMATELY 2 INCHES IN DIAMETER AND THE CONCRETE IS APPROXIMATELY 2 FEET SQUARE. THE PIPE IS LOOSE AND CAPPED WITH CLAY PIPE AND CONCRETE.

Photos for Halls Nursery

PHOTO 21 VIEW FACING WEST FROM THE CORNER OF ENCELIA AVE. AND REDLANDS BLVD. SHOWING HALLS NURSERY TO THE RIGHT (NORTH) AND VACANT LAND TO THE LEFT, ACROSS ENCELIA AVE.

PHOTO 22 VIEW FACING NORTH FROM THE INTERSECTION OF ENCELIA AVE. AND REDLANDS BLVD. SHOWING HALLS NURSERY TO THE LEFT (WEST) AND REDLANDS BLVD. TO THE RIGHT WITH THE EARTHEN CHANNEL ALONG THE ROADWAY.

PHOTO 23 VIEW FACING NORTH FROM EAST OF RESIDENCE ADDRESSED 12981 REDLANDS SHOWING THE EAST SIDE OF THE NURSERY WITH THE POTTED PLANTS AND WORK VEHICLES AND TRAILER. IN THE BACKGROUND IS THE PARKING LOT.

PHOTO 24 SHOWING THE INSIDE OF THE GARAGE ASSOCIATED WITH THE RESIDENCE ADDRESSED 12981 REDLANDS. PART OF THE GARAGE IS DAMAGED.

PHOTO 25 NORTH OF THE GARAGE PICTURED IN THE PREVIOUS PHOTOGRAPH IS A SMALL WOODEN SHED WITH THREE 5-GALLON BUCKETS PARTIALLY TO FULL OF WASTE OIL AND ONE EMPTY BUCKET WITH OTHER STORED ITEMS.

PHOTO 26 VIEW FACING SOUTH FROM THE NORTH END OF THE CUSTOMER PARKING ADJACENT REDLANDS SHOWING THE POTTED PLANTS AND CLAY POTS.

PHOTO 27 VIEW FACING WEST FROM THE PARKING LOT SHOWING A FORMER GARAGE NOW USED FOR STORAGE. ONE LARGE AND OE SMALL WOOD SHED ARE FURTHER WEST OF THE GARAGE. TO THE RIGHT ARE POTTED PLANTS AND TREES.

PHOTO 28 VIEW OF STORED MATERIAL IN THE GARAGE PICTURED ABOVE

PHOTO 29 VIEW OF THE MATERIAL STORED IN THE LARGER SHED WEST OF THE FORMER GARAGE PICTURED ABOVE BY THE PARKING LOT.

PHOTO 30 VIEW OF THE PARTS STORED IN THE SMALL SHED WEST OF THE ABOVE PICTURED GARAGE.

PHOTO 31 VIEW FACING NORTHERLY FROM THE PARKING LOT SHOWING THE OFFICE WITH POTTED PLANTS IN FRONT. TO THE LEFT IS A SMALL SHED.

PHOTO 32 VIEW OF THE STORED PARTS IN THE SHED WEST OF THE OFFICE AND SHOWN IN THE ABOVE PICTURE.

PHOTO 33 VIEW FACING WEST FROM PARKING LOT SHOWING ONE OF THE ROADS THAT TRAVERSE THE NURSERY BOTH NORTH-SOUTH AND EAST-WEST. BY THE PALM TREE IN THE BACKGROUND IS THE PESTICIDE STORAGE SHED.

PHOTO 34 VIEW FACING WEST SHOWING THE PESTICIDE STORAGE SHED. TO THE RIGHT (NORTH) ARE THE WATER TANKS ASSOCIATED WITH THE WELL.

PHOTO 35 BLURRED VIEW OF THE PESTICIDES STORED IN BAGS AND CONTAINERS IN THE SMALL PESTICIDE STORAGE SHED.

PHOTO 36 VIEW OF THE WATER WELL, BLADDER TANKS, HOLDING TANKS AND FILTERS. PUMP IS ELECTRIC.

PHOTO 37 VIEW OF THE WORKBENCH SOUTH OF THE 20 FOOT STEEL CONTAINER EAST OF THE WATER WELL. BATTERIES MOTOR OIL ARE STORED HERE.

PHOTO 38 VIEW OF THE STORED PARTS AND EQUIPMENT IN THE 20 FOOT STEEL CONTAINER EAST OF THE WATER WELL. THE 5-GALLON BUCKETS ARE PAINT.

PHOTO 39 VIEW OF THE LARGE CONCRETE BLOCK AT THE WEST-CENTER PORTION OF THE PROPERTY. THE CONCRETE BLOCK ARE THE START OF BUNKERS FOR SAND GRAVEL AND ROCK.

PHOTO 40 VIEW FACING NORTHEASTERLY FROM THE SWC OF THE NURSERY SHOWING THE CONCRETE BLOCK, LARGE PILE OF DIRT, MULCH AND LANDSCAPE POTS STORED IN THIS AREA.

PHOTO 41 VIEW OF THE NUMEROUS LANDSCAPE POTS IN THE SOUTHWEST PORTION OF THE NURSERY.

PHOTO 42 VIEW OF THE MULCH STORED IN THE SOUTHWEST PORTION OF THE NURSERY.

PHOTO 43 VIEW SHOWING A ROLL OFF WITH GREEN WASTE, TRAILERS AND STORAGE CONTAINERS IN THE NORTH WESTERLY PORTION OF THE NURSERY.

PHOTO 44 VIEW OF THE STORED SHADE CLOTH, PVC AND METAL PIPE, FENCING OLD TRACTOR, EMPTY 55- GALLON PLASTIC DRUMS, AND OTHER MATERIAL IN THE NORTHWESTERLY PORTION OF THE SITE.

PHOTO 45 VIEW OF THE STORED PERSONAL ITEMS IN ONE OF THE 20 FOOT STEEL CONTAINERS LOCATED IN THE NORTHWESTERLY PORTION OF THE SITE.

PHOTO 46 VIEW OF THE PERSONAL ITEMS STORED IN THE OTHER 20 FOOT STEEL CONTAINER IN THE NORTHWESTERLY PORTION OF THE SITE.

PHOTO 47 VIEW FACING EAST SHOWING THE NORTHER PORTION OF THE NURSERY WITH THE PLANTS AND GREEN HOUSES. IN THE BACKGROUND IS THE RESIDENCE WITH THE ADDRESS OF 12981 REDLANDS.

PHOTO 48 VIEW OF THE GARAGE AND STORED TRAILER, MOTOR HOME AND VEHICLES AT 12981 REDLANDS. IN THE FOREGROUND ARE STORED NURSERY MATERIALS.

APPENDIX B

EDR Historical Aerial Photographs

Brixton Capital Approx. 70 Acres

SWC Redlands Blvd./Eucalyptus Ave..

Moreno Valley, CA 92555

Inquiry Number: 5541495.8

January 24, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

01/24/19

Site Name:

Brixton Capital Approx. 70 Acre
SWC Redlands Blvd./Eucalyptu
Moreno Valley, CA 92555
EDR Inquiry # 5541495.8

Client Name:

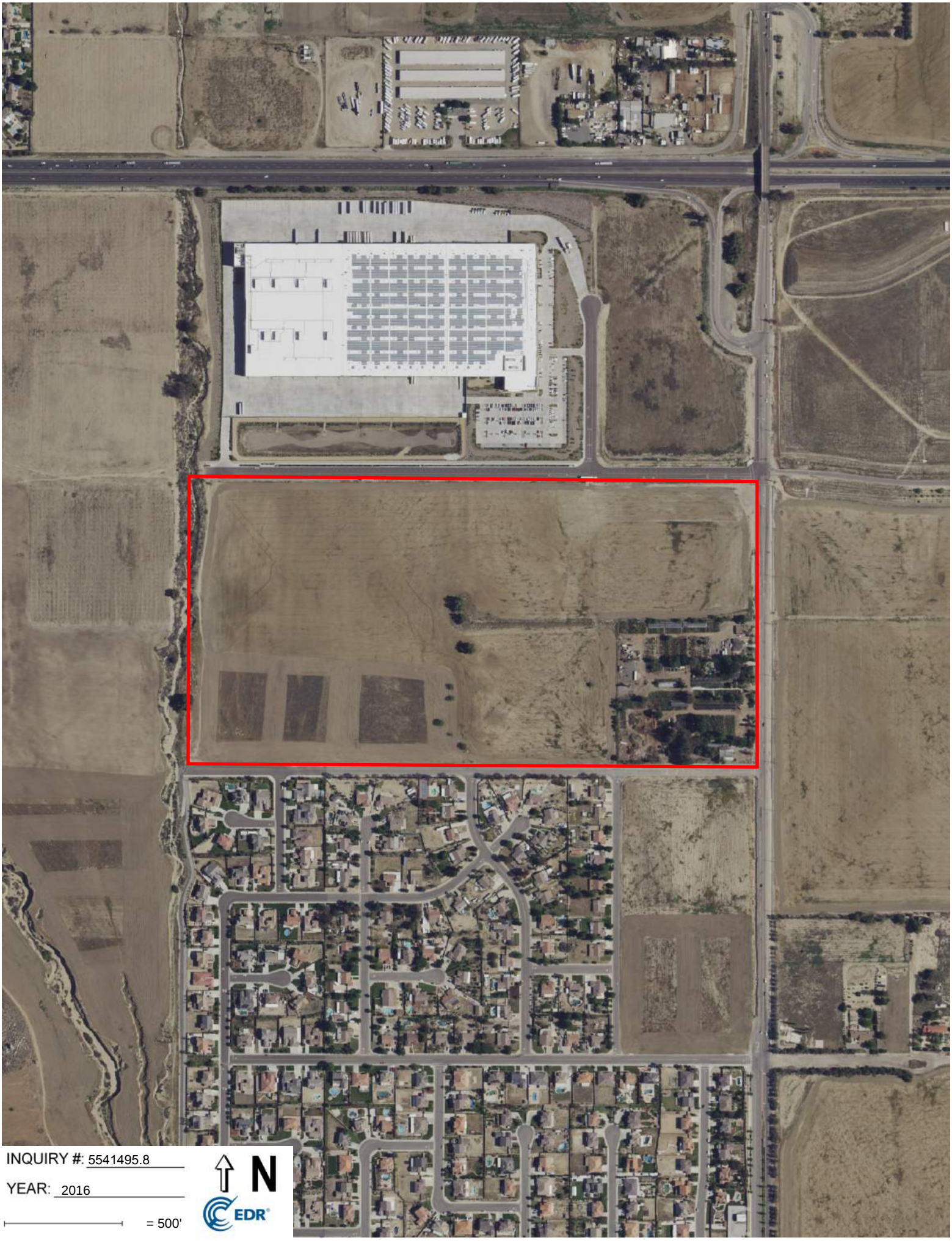
LOR Geotechnical Group, Inc.
6121 Quail Valley Court
Riverside, CA 92507
Contact: Mat Hunt

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: May 22, 2002	USGS/DOQQ
1997	1"=500'	Flight Date: October 16, 1997	USGS
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1978	1"=500'	Flight Date: September 20, 1978	USDA
1967	1"=500'	Flight Date: May 15, 1967	USDA
1961	1"=500'	Flight Date: June 14, 1961	USDA
1953	1"=500'	Flight Date: August 28, 1953	USDA
1949	1"=500'	Flight Date: May 23, 1949	USDA
1938	1"=500'	Flight Date: June 14, 1938	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.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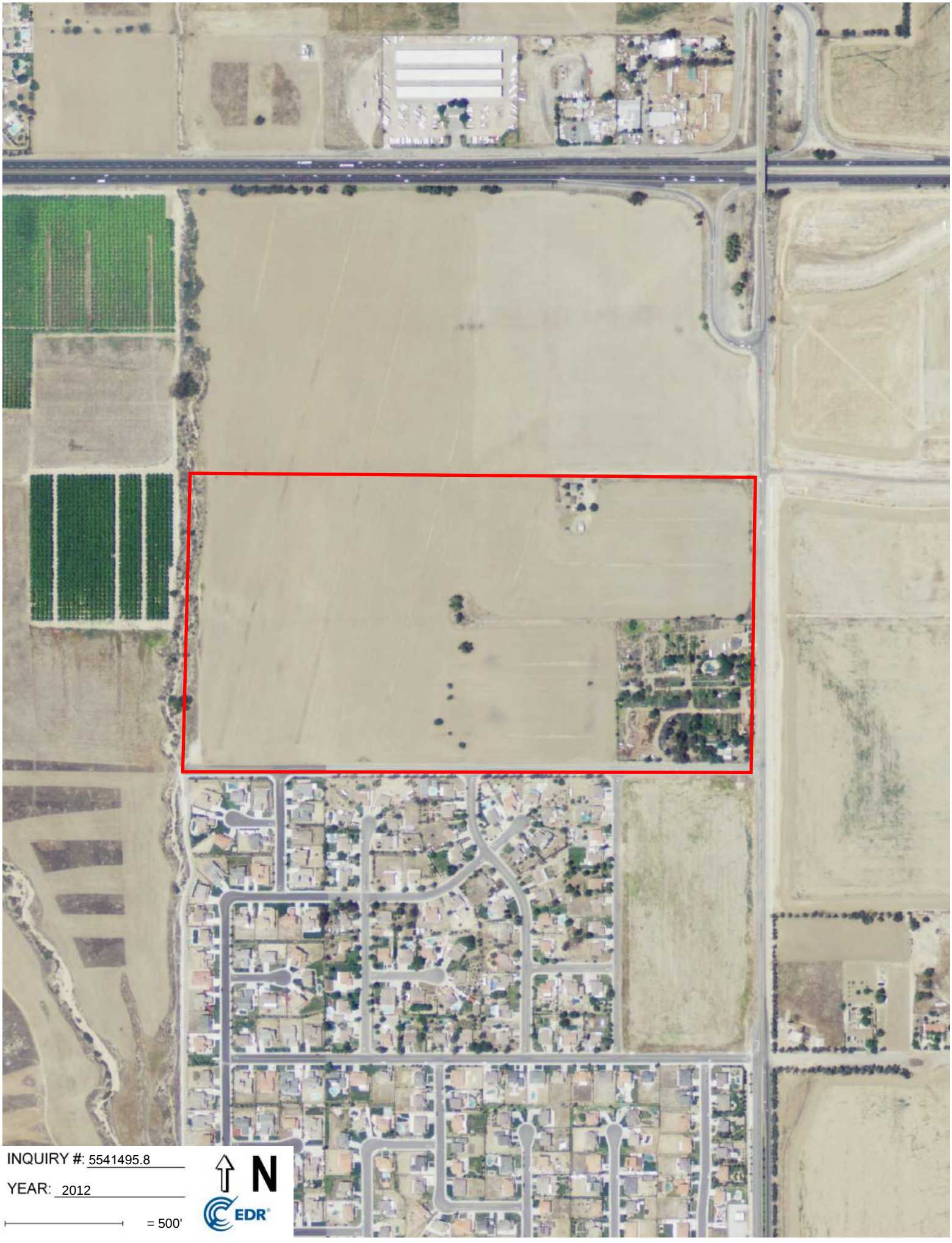
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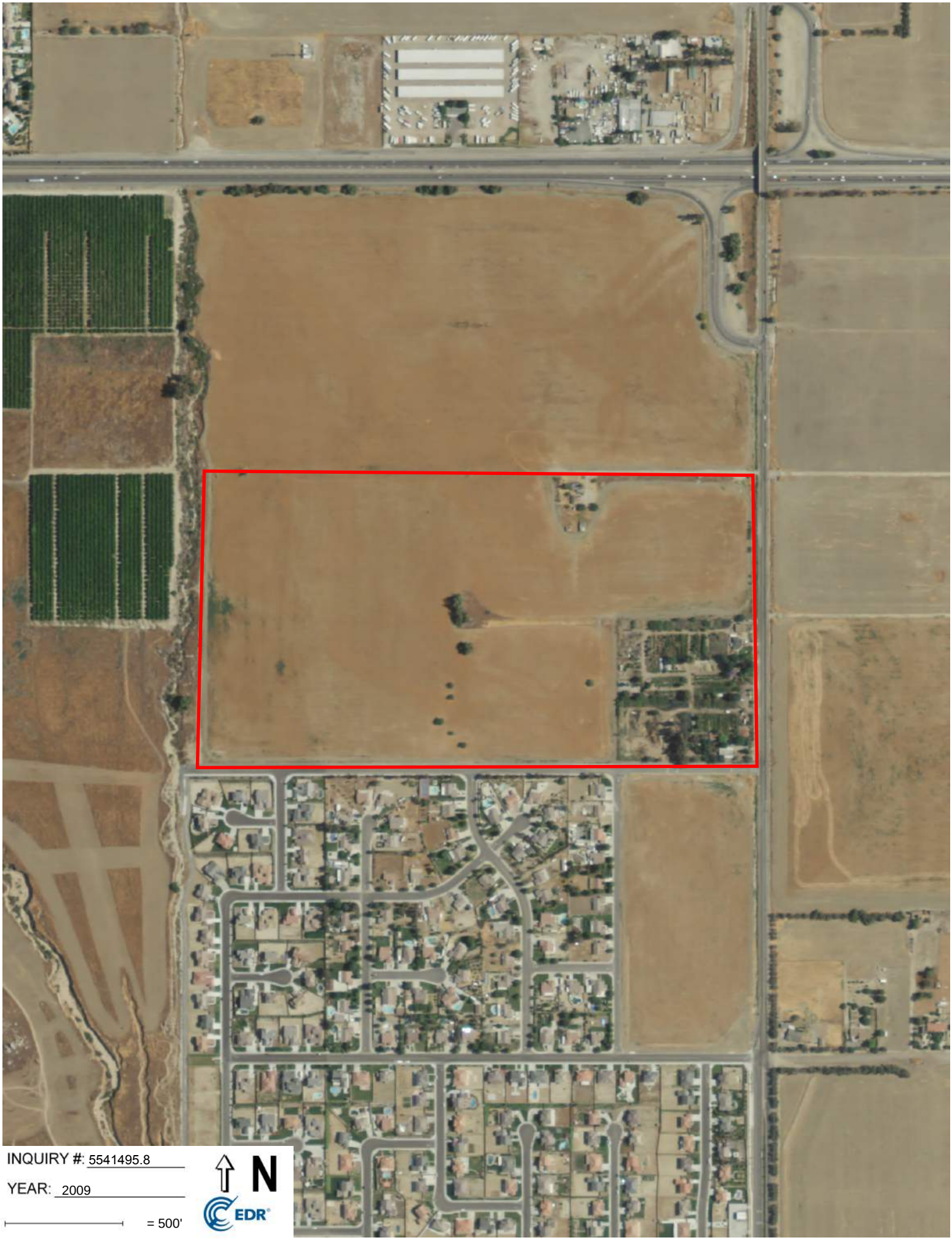
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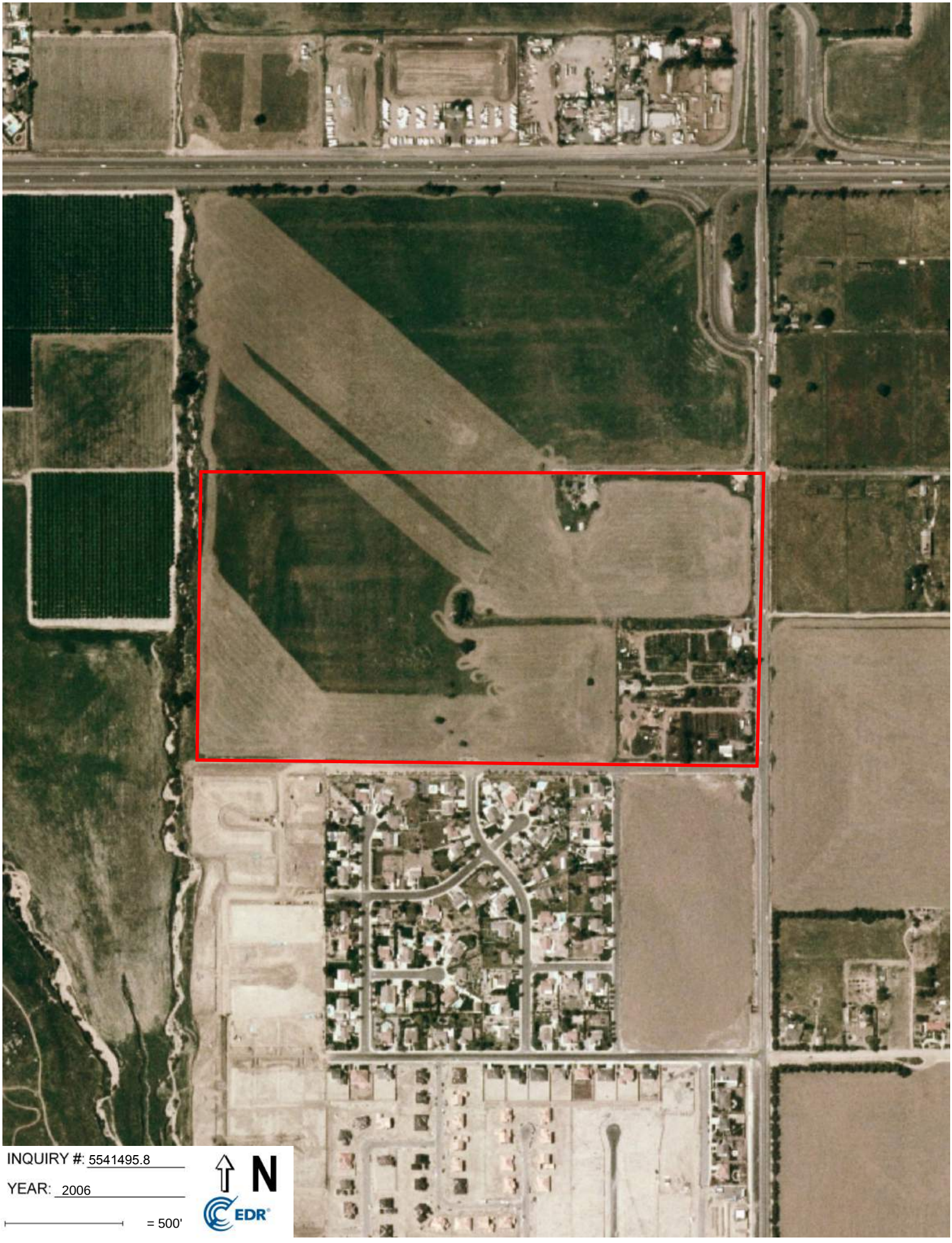
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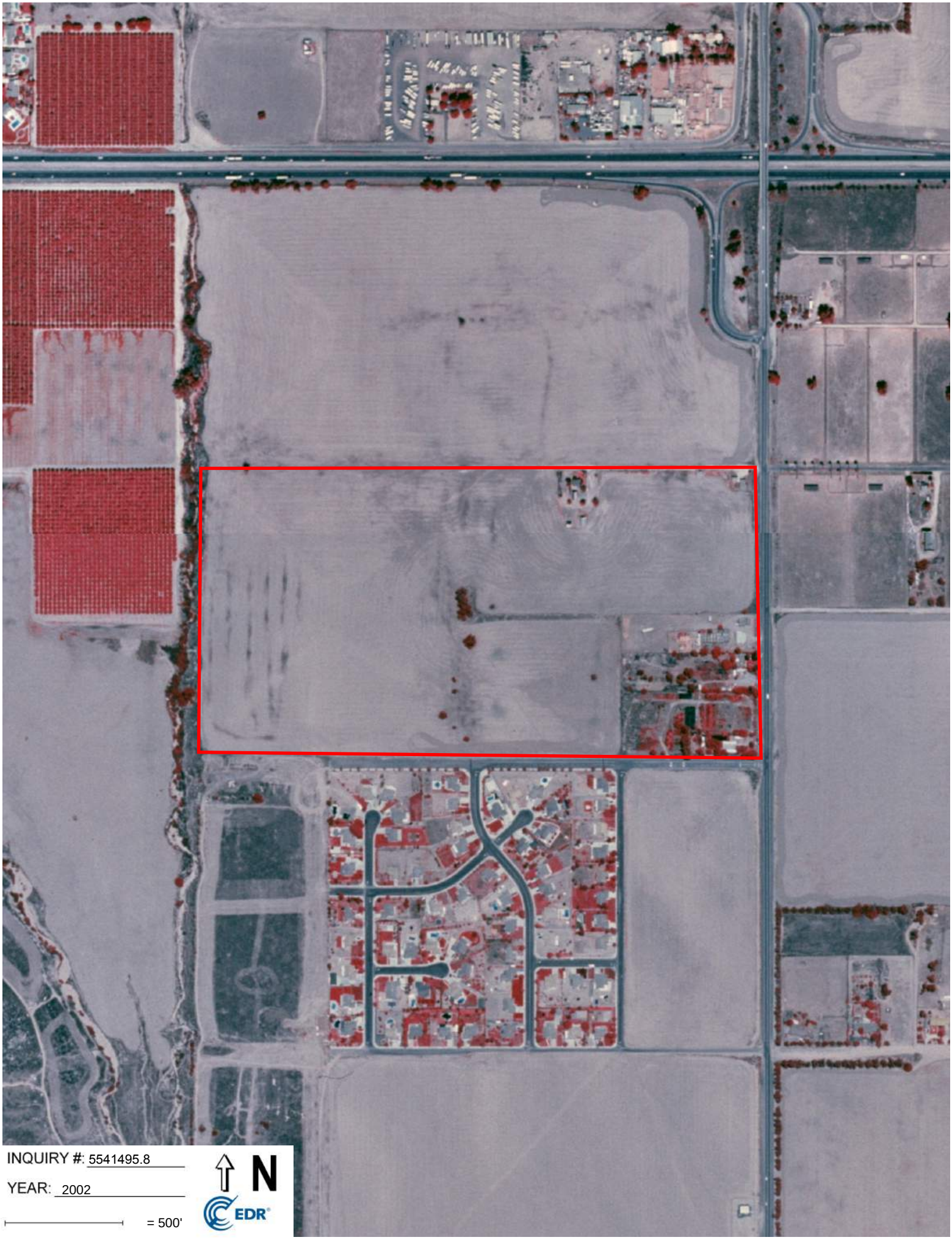
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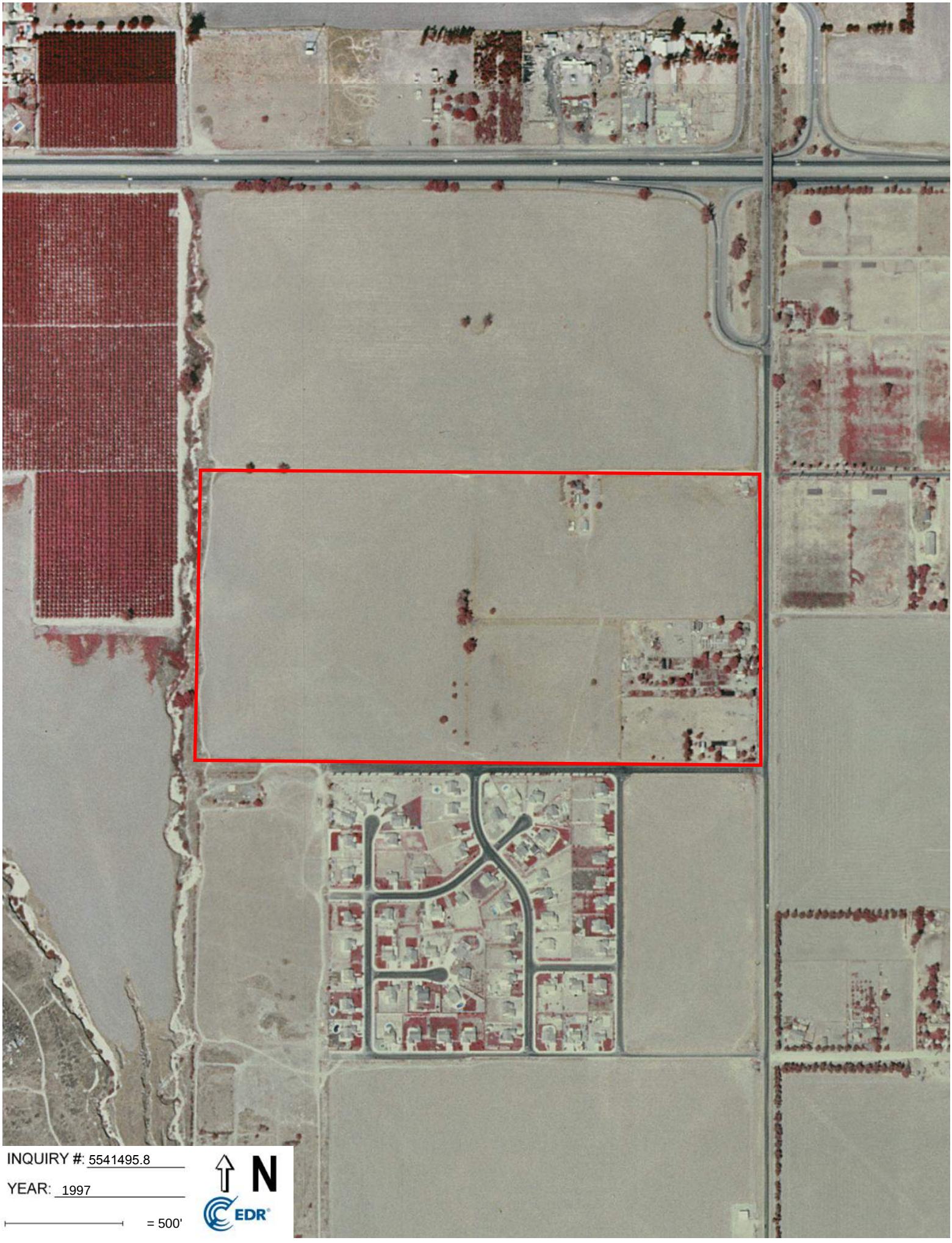
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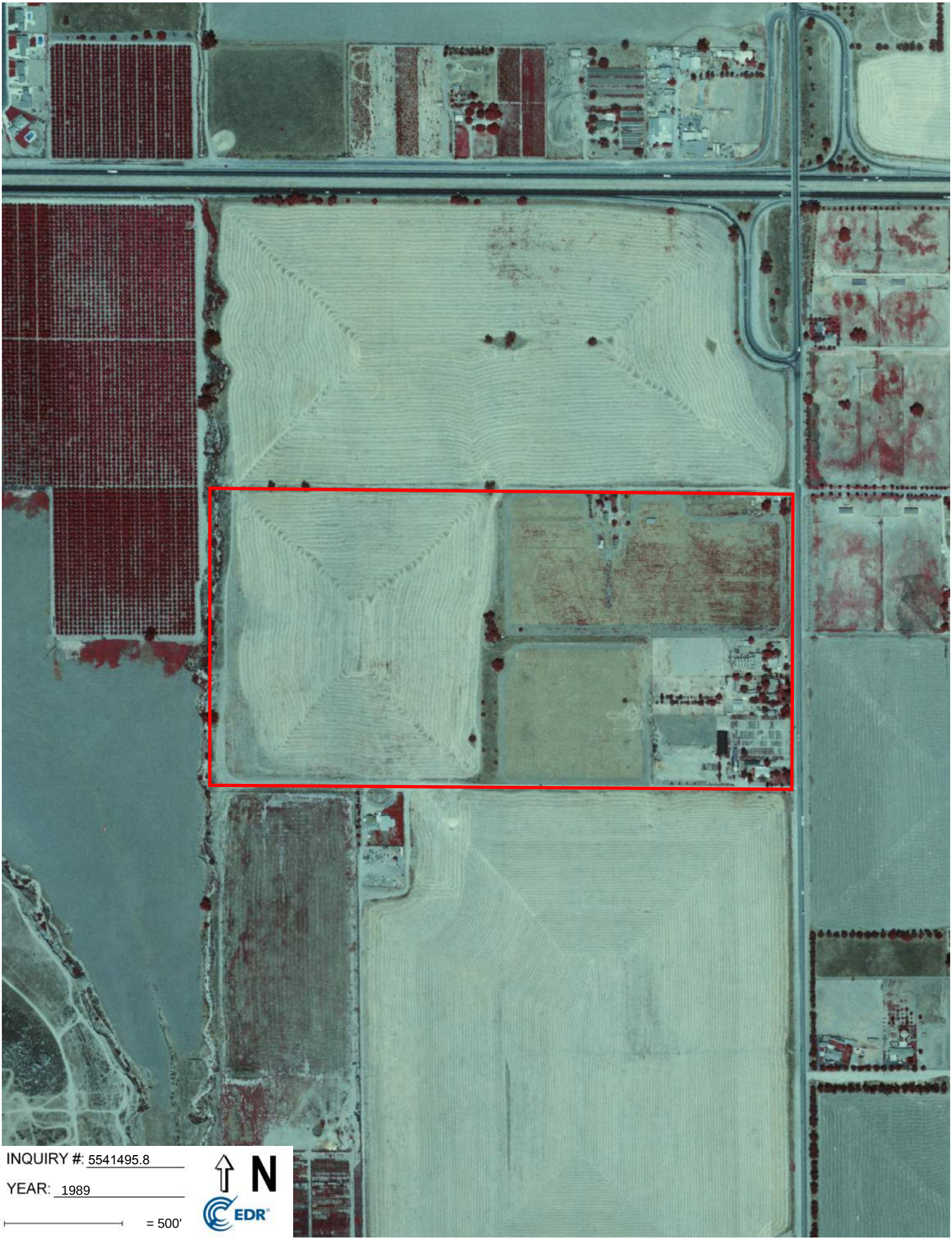
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EDR

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YEAR: 1978

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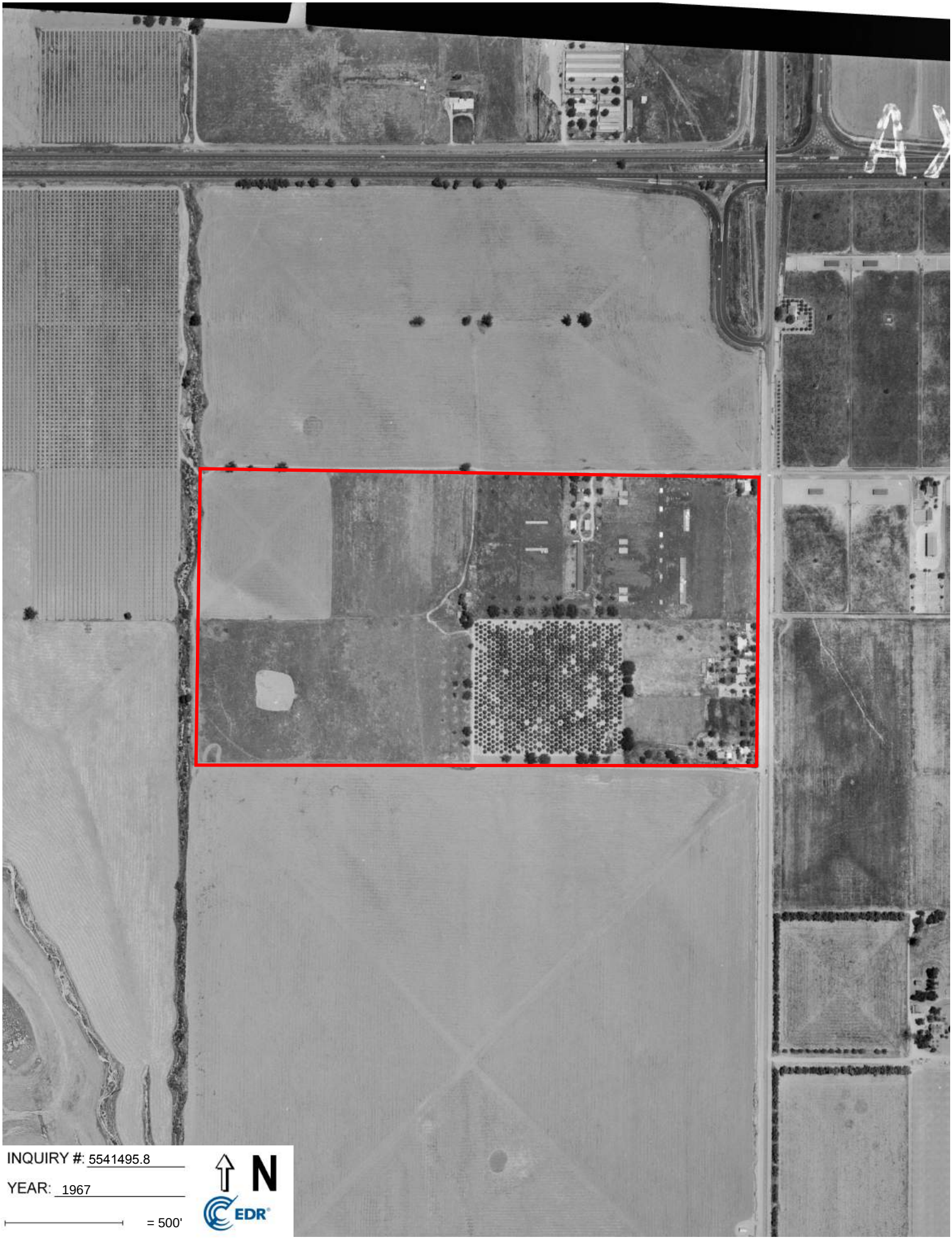
EDR



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EDR

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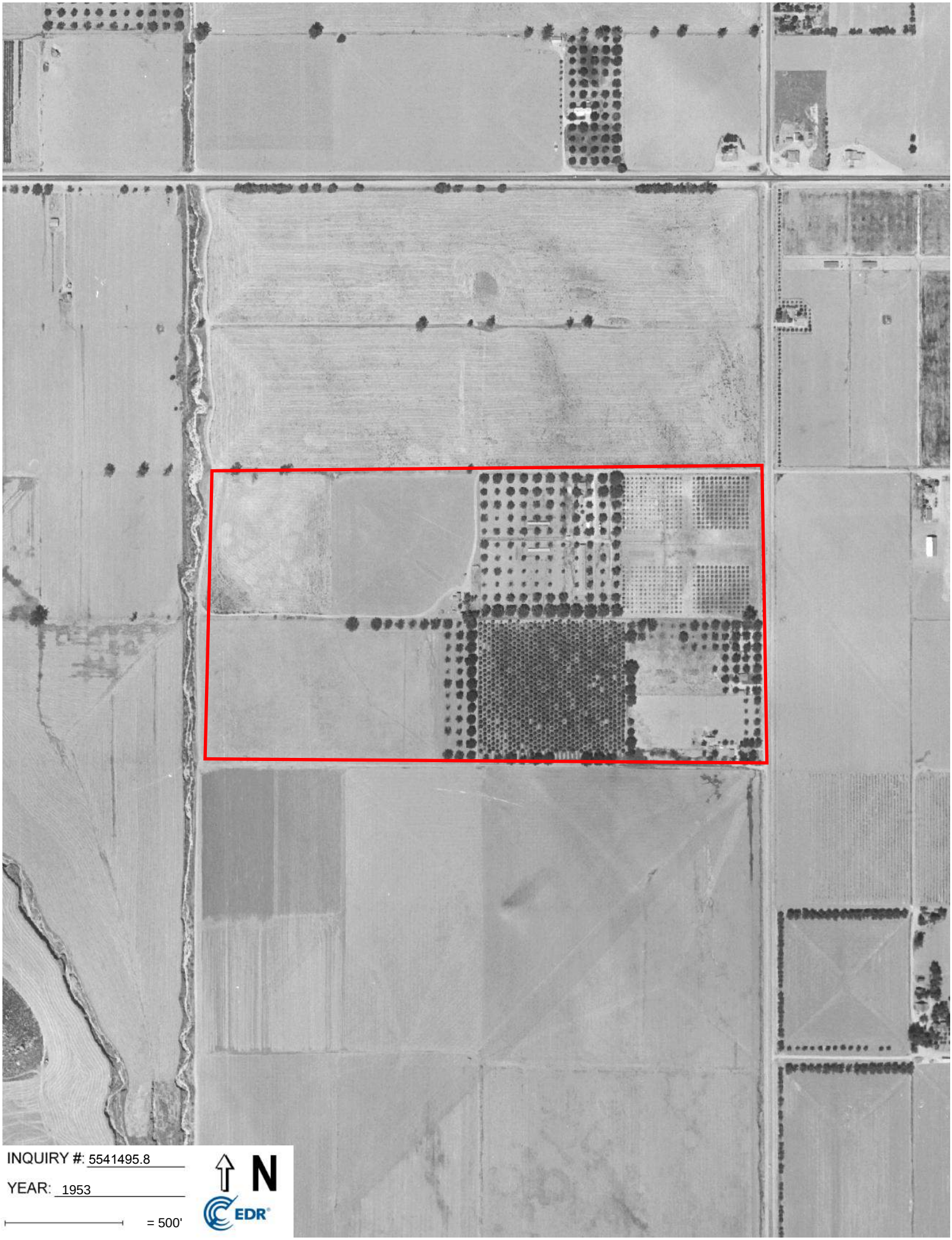
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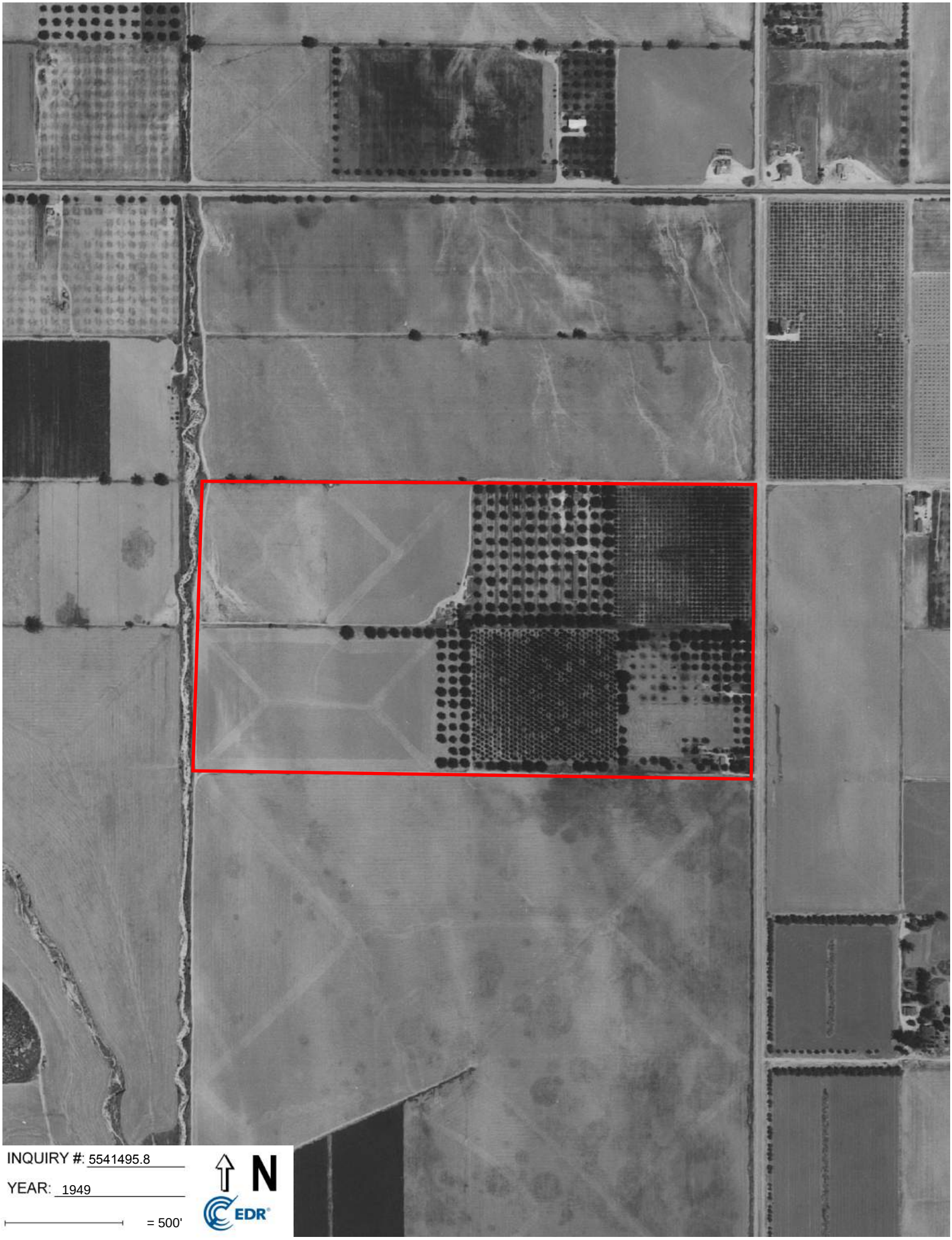

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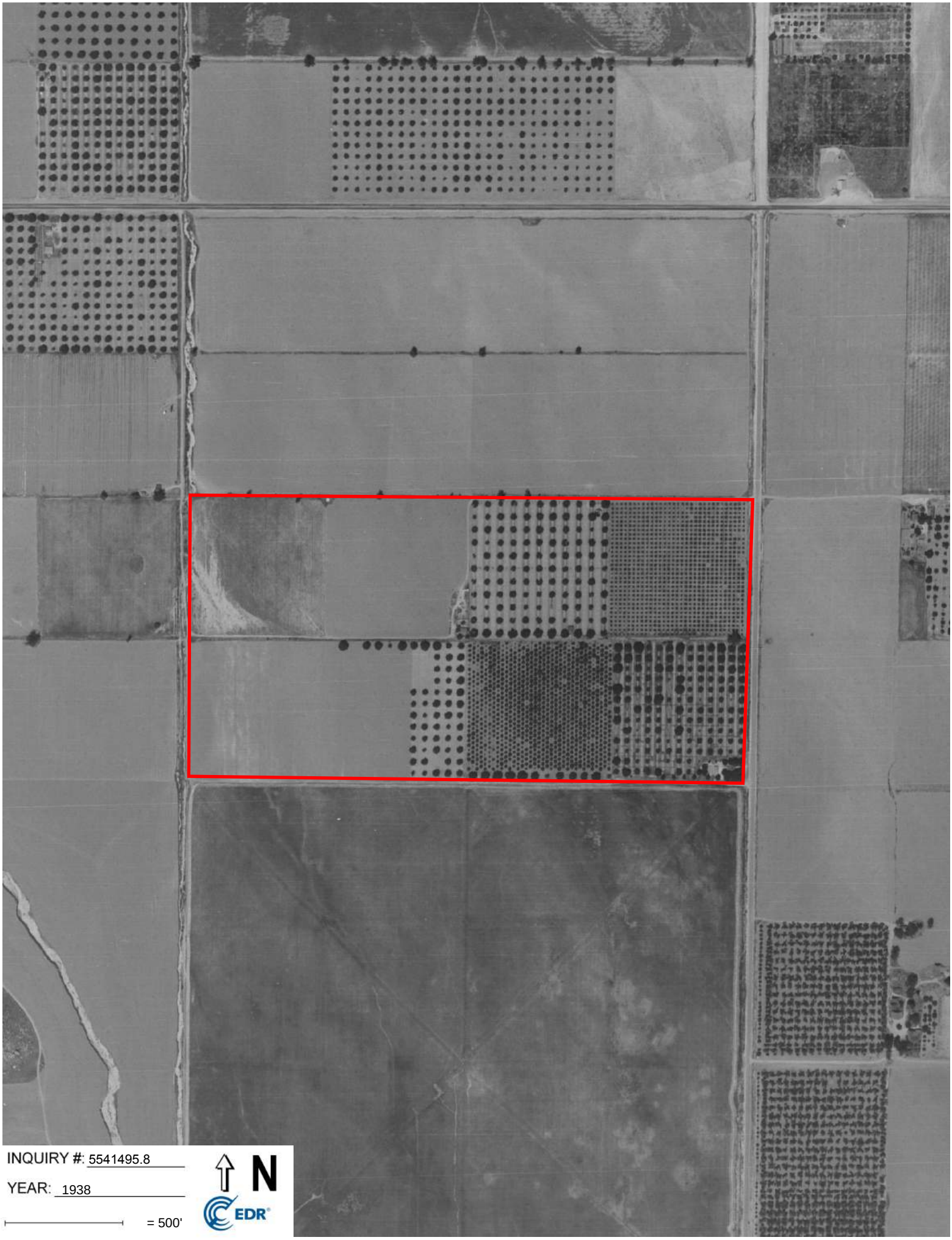
INQUIRY #: 5541495.8
YEAR: 1938
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EDR

APPENDIX C

EDR Certified Sanborn® Map Report

Brixton Capital Approx. 70 Acres

SWC Redlands Blvd./Eucalyptus Ave..

Moreno Valley, CA 92555

Inquiry Number: 5541495.3

January 22, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/22/19

Site Name:	Client Name:
Brixton Capital Approx. 70 Acre	LOR Geotechnical Group, Inc.
SWC Redlands Blvd./Eucalyptu	6121 Quail Valley Court
Moreno Valley, CA 92555	Riverside, CA 92507
EDR Inquiry # 5541495.3	Contact: Mat Hunt

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by LOR Geotechnical Group, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 92B0-49E6-9779

PO # NA

Project 23513.2

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 92B0-49E6-9779

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

LOR Geotechnical Group, Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

APPENDIX D

EDR Historical Topographic Map Report

Brixton Capital Approx. 70 Acres

SWC Redlands Blvd./Eucalyptus Ave..

Moreno Valley, CA 92555

Inquiry Number: 5541495.4

January 22, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

01/22/19

Site Name:

Brixton Capital Approx. 70 Acre
SWC Redlands Blvd./Eucalypti
Moreno Valley, CA 92555
EDR Inquiry # 5541495.4

Client Name:

LOR Geotechnical Group, Inc.
6121 Quail Valley Court
Riverside, CA 92507
Contact: Mat Hunt

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by LOR Geotechnical Group, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: 23513.2

Coordinates:

Latitude:	33.933721 33° 56' 1" North
Longitude:	-117.161015 -117° 9' 40" West
UTM Zone:	Zone 11 North
UTM X Meters:	485119.07
UTM Y Meters:	3754818.81
Elevation:	1731.81' above sea level

Maps Provided:

2012
1980
1973
1967
1953
1943
1942
1901

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Sunnymead
2012
7.5-minute, 24000

1980 Source Sheets

Sunnymead
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets

Sunnymead
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1967 Source Sheets

Sunnymead
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953 Source Sheets

Sunnymead
1953
7.5-minute, 24000
Aerial Photo Revised 1951

1943 Source Sheets

PERRIS
1943
15-minute, 62500

1942 Source Sheets

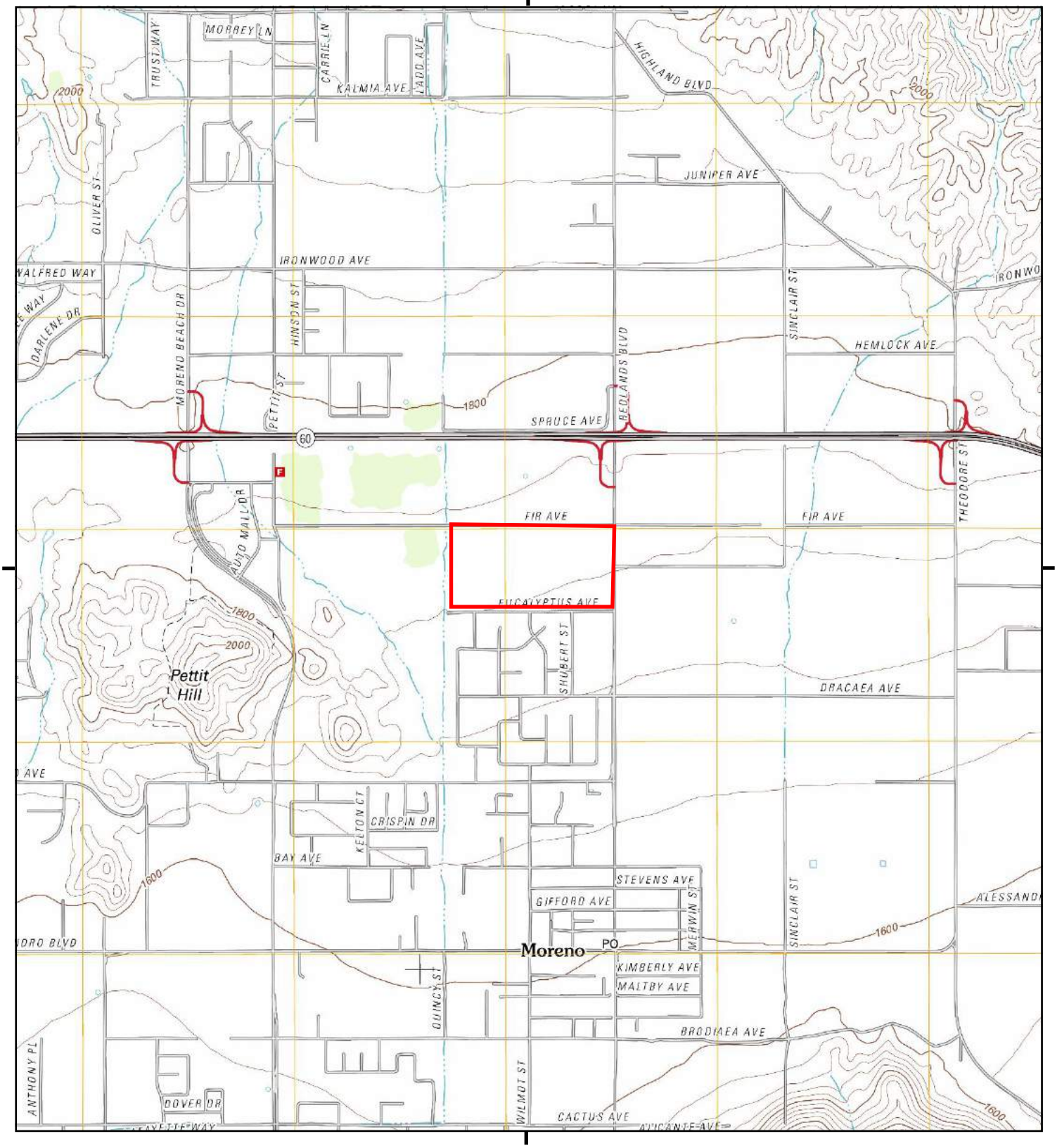
Perris
1942
15-minute, 62500
Aerial Photo Revised 1939

1901 Source Sheets

Elsinore
1901
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

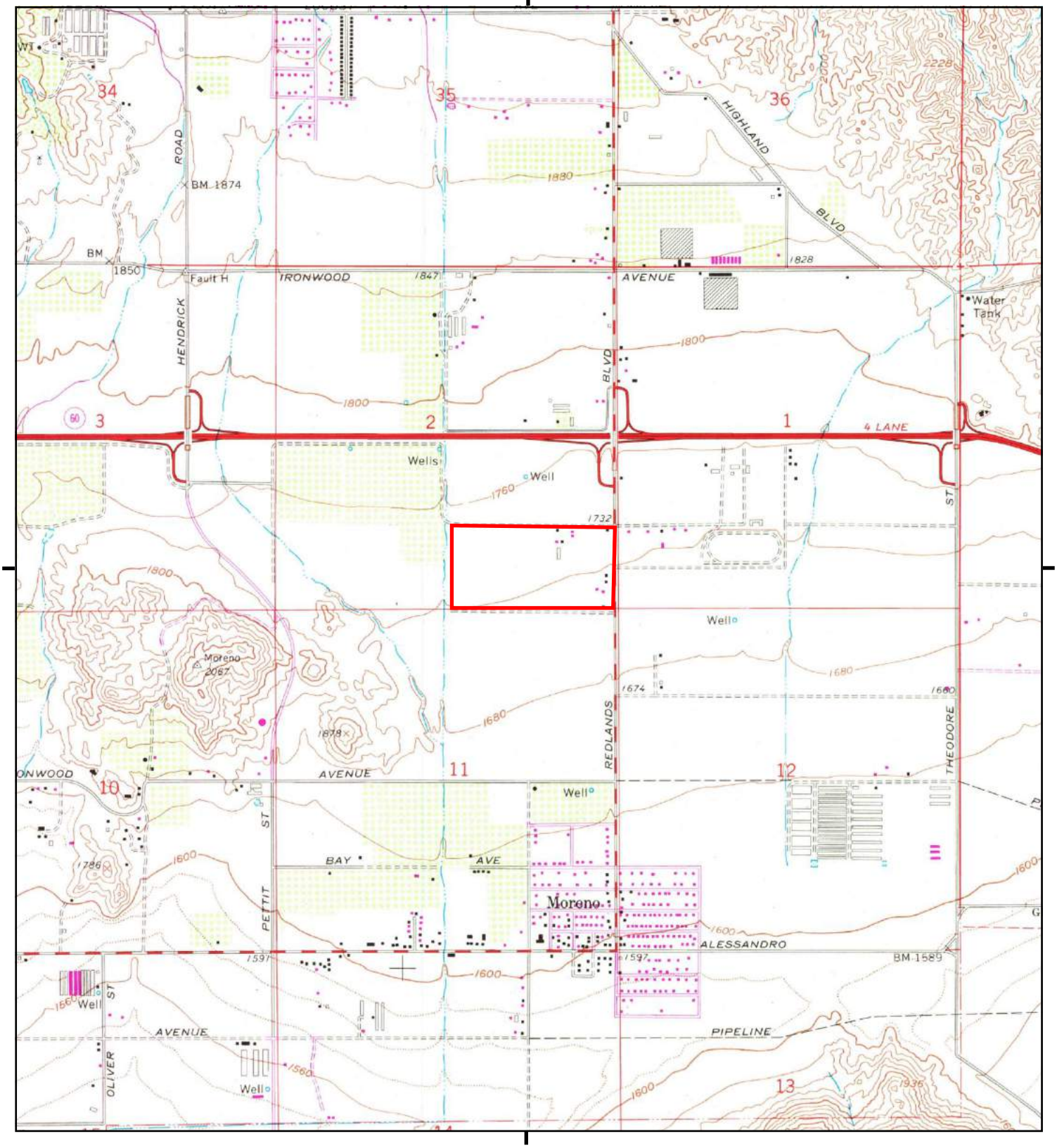
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sunnymead, 2012, 7.5-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

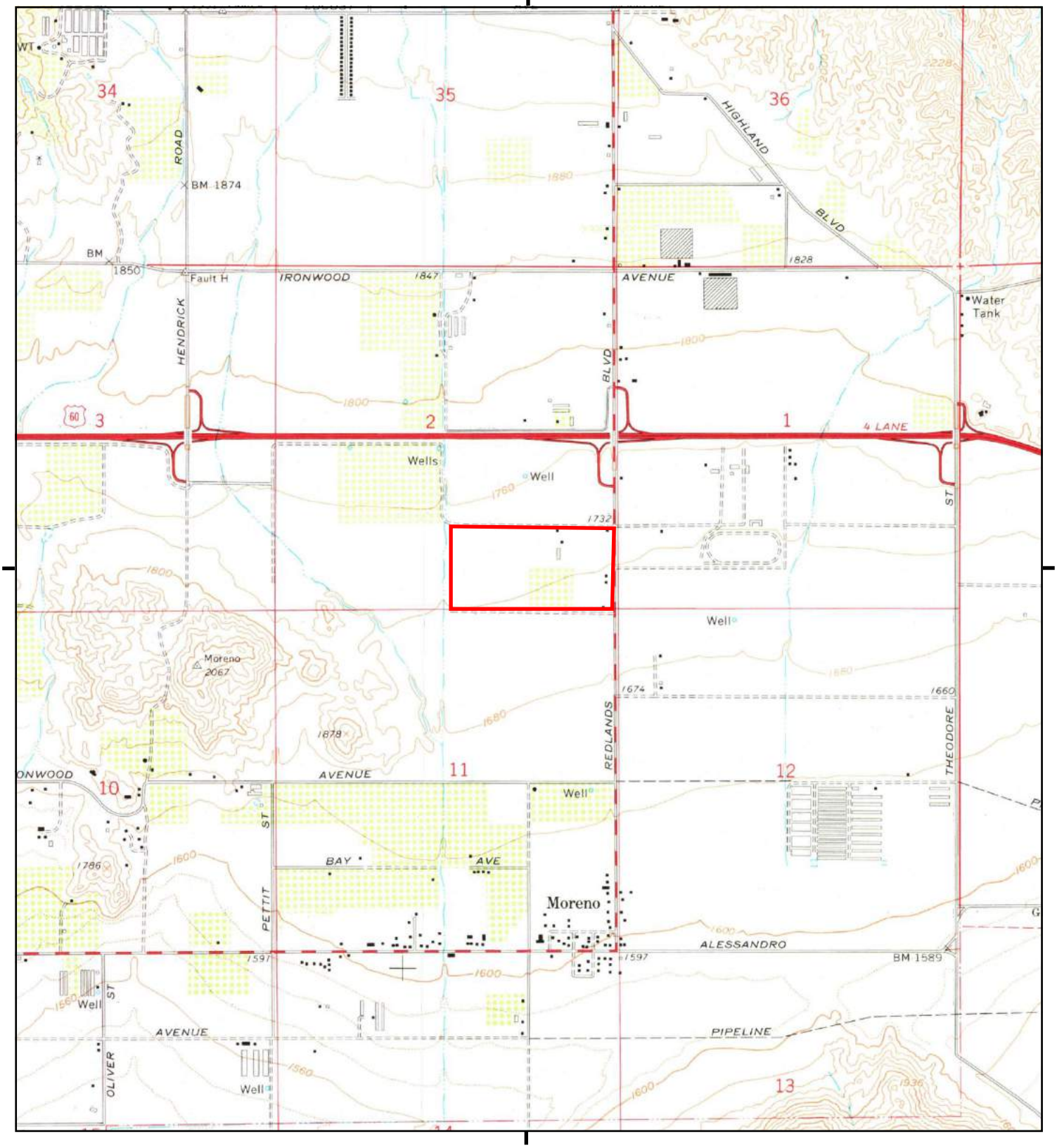
TP, Sunnymead, 1980, 7.5-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

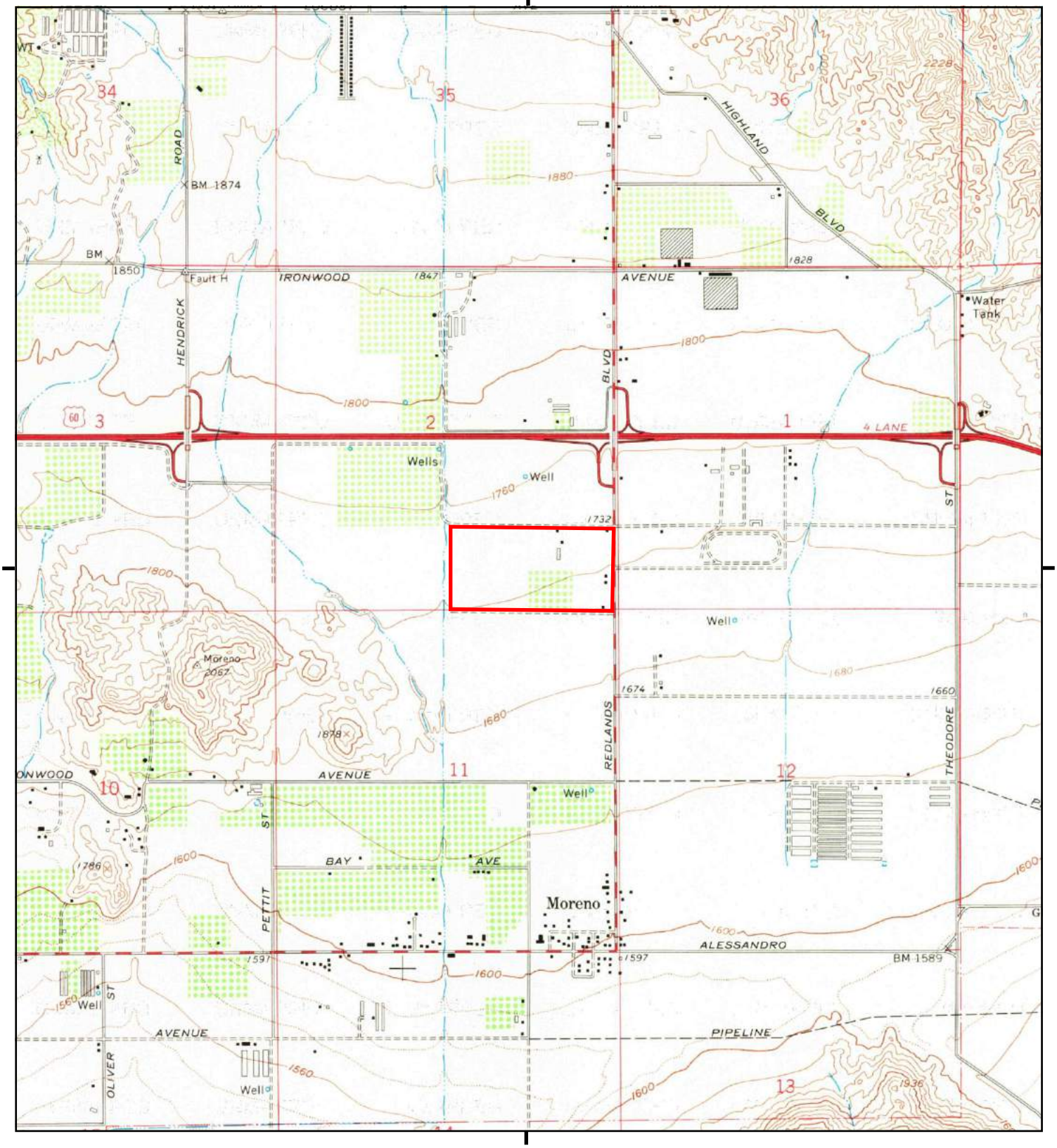
TP, Sunnymead, 1973, 7.5-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N

Historical Topo Map

1967



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

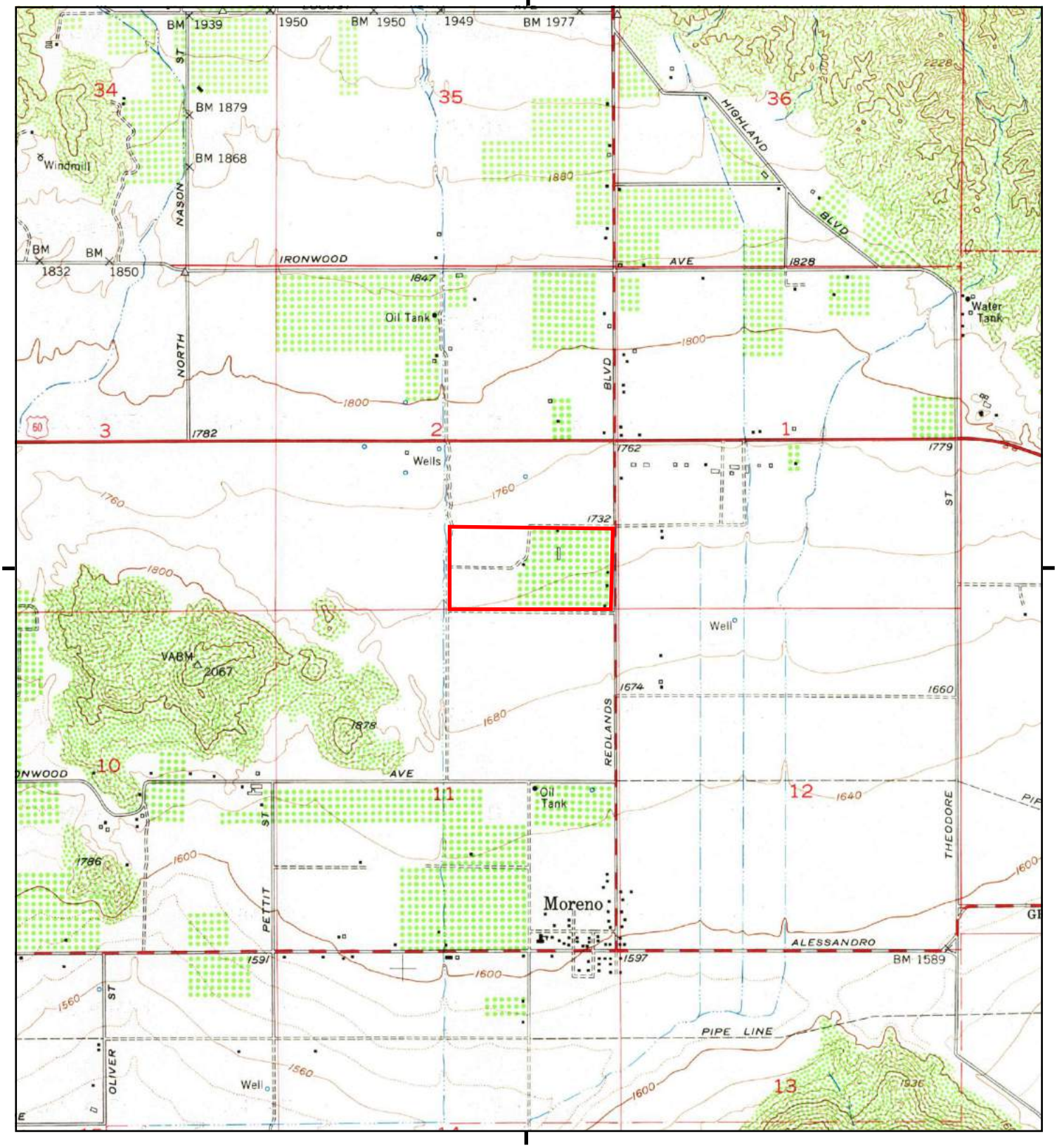
TP, Sunnymead, 1967, 7.5-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N

Historical Topo Map

1953



This report includes information from the following map sheet(s).

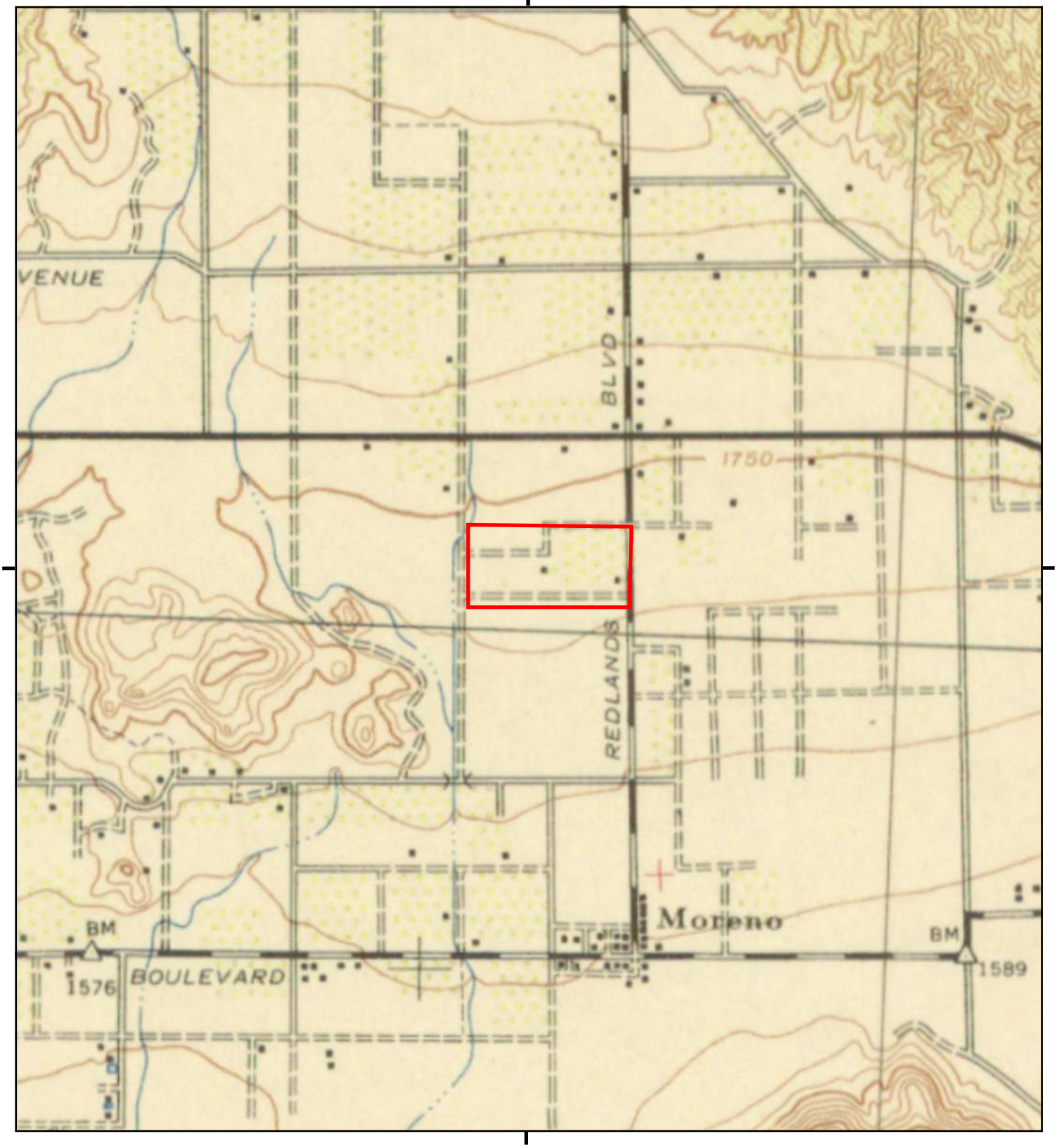
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sunnymead, 1953, 7.5-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N



This report includes information from the following map sheet(s).

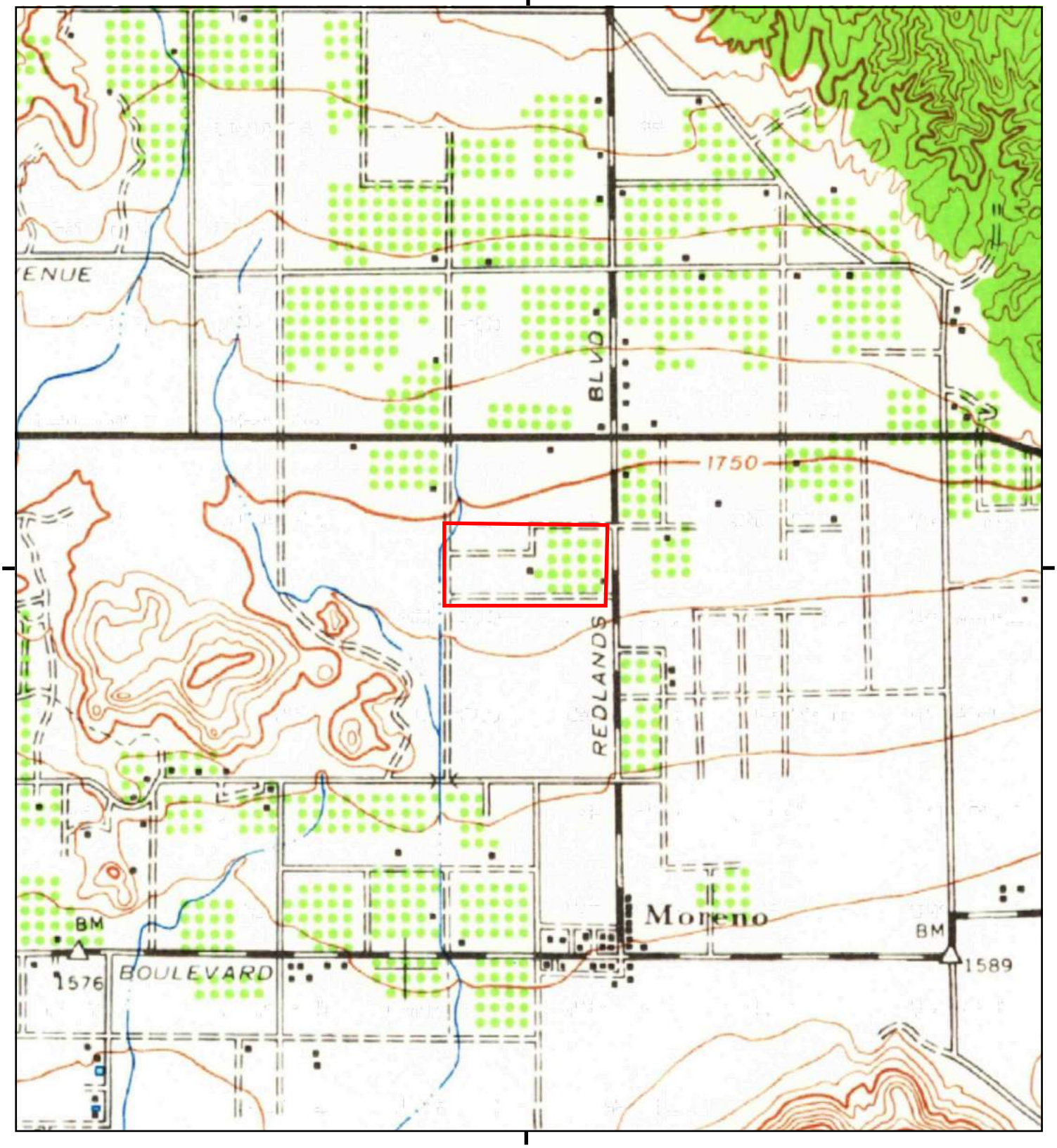
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, PERRIS, 1943, 15-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N



This report includes information from the following map sheet(s).

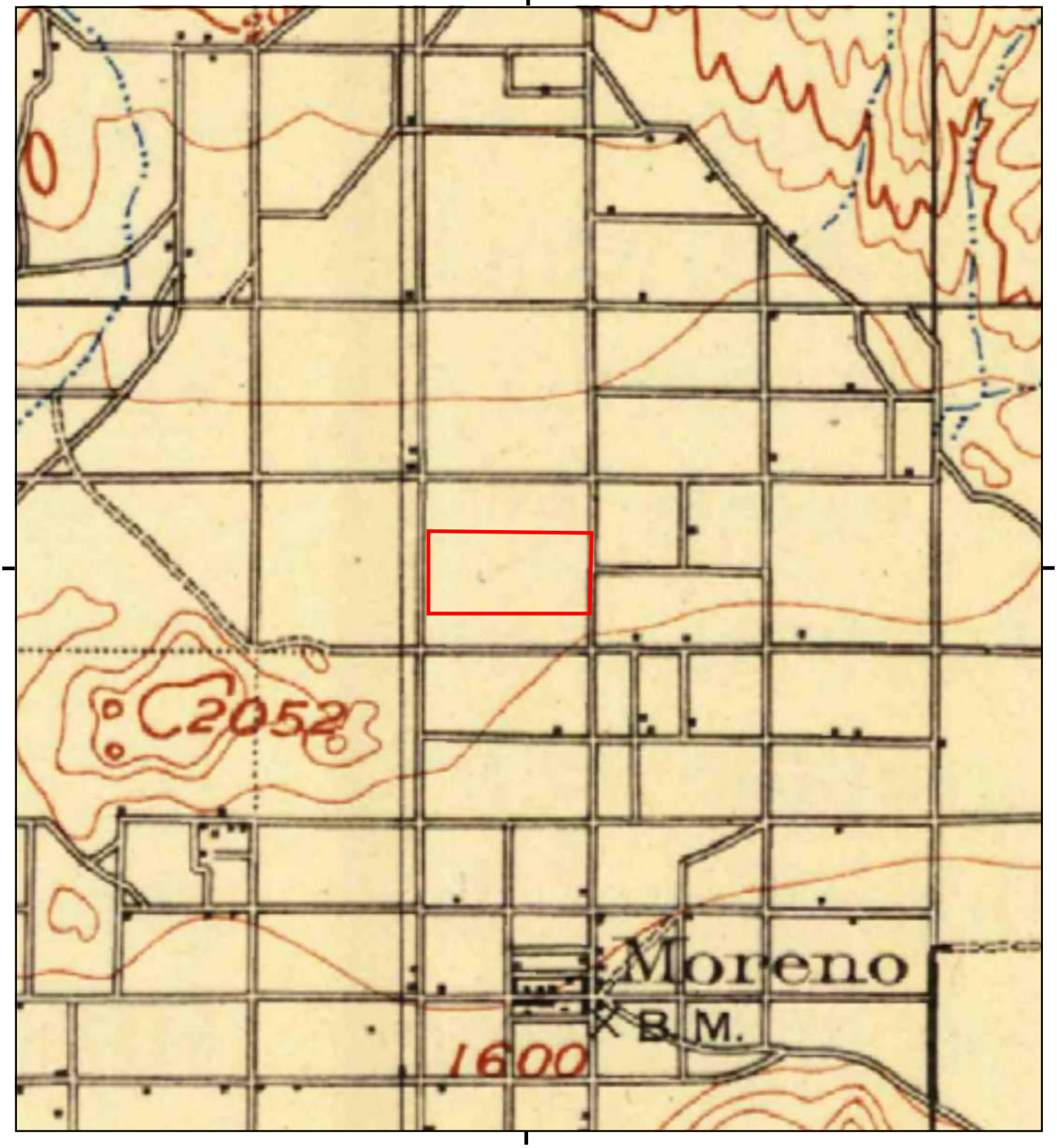
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Perris, 1942, 15-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Elsinore, 1901, 30-minute

SITE NAME: Brixton Capital Approx. 70 Acres
ADDRESS: SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555
CLIENT: LOR Geotechnical Group, Inc.

N

APPENDIX E

EDR Historical City Directory Information

Brixton Capital Approx. 70 Acres
SWC Redlands Blvd. & Eucalyptus Ave..
Moreno Valley, CA 92555

Inquiry Number: 5541495.5
January 30, 2019

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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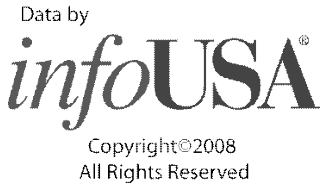


RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☐	Haines Criss-Cross Directory
1990	☑	☑	Haines Criss-Cross Directory
1985	☑	☑	Haines Criss-Cross Directory
1980	☐	☑	Haines Criss-Cross Directory
1975	☐	☑	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

SWC Redlands Blvd. & Eucalyptus Ave..
Moreno Valley, CA 92555

Year	*CD Image*	*Source*	
EUCALYPTUS AVE			
2014	pg A1	EDR Digital Archive	
2010	pg A6	EDR Digital Archive	
2005	pg A9	EDR Digital Archive	
2000	pg A13	EDR Digital Archive	
1995	pg A16	Haines Criss-Cross Directory	
1990	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
REDLANDS BLVD			
2014	pg A4	EDR Digital Archive	
2010	-	EDR Digital Archive	Target and Adjoining not listed in Source
2005	pg A11	EDR Digital Archive	
2000	pg A15	EDR Digital Archive	
1995	pg A17	Haines Criss-Cross Directory	
1995	pg A18	Haines Criss-Cross Directory	
1990	pg A20	Haines Criss-Cross Directory	
1990	pg A21	Haines Criss-Cross Directory	
1985	pg A23	Haines Criss-Cross Directory	
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
FIR AVE			
2014	pg. A2	EDR Digital Archive	
2010	pg. A7	EDR Digital Archive	
2005	pg. A10	EDR Digital Archive	
2000	pg. A14	EDR Digital Archive	
1995	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1990	pg. A19	Haines Criss-Cross Directory	
1985	pg. A22	Haines Criss-Cross Directory	
1980	pg. A24	Haines Criss-Cross Directory	
1975	pg. A25	Haines Criss-Cross Directory	

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCALYPTUS AVE 2014

27100	LUXOTTICA RETAIL N AMER INC
	TARGET STORES INC
27110	ALBERTOS MEXICAN FOOD
	NOSTI DENTAL CORP
	Q NAILS & SPA
	STONERIDGE DENTAL GRP & ORTHD
27120	CHINA ONE
	MORENO VALLEY CULTURAL ARTS
	PLAY N TRADE
	SEES CANDIES
	SUPERCUTS
	WEINGARTEN STONE RIDGE LLC
	WIRELESS PLUS INC
27130	AUDEO CHARTER SCHOOL
	JUICE CLUB INC
	MAIN STREET FISH FRY INC
	STORE LOCATOR
	T-MOBILE USA INC
	VISTERRA CREDIT UNION
27140	PCG HOSPITALITY
	ROUND TABLE DEVELOPMENT CO
27180	DRESS BARN INC
27200	KOHLS DEPARTMENT STORES INC
27210	KIRKLANDS 883
27300	OFFICEMAX NORTH AMERICA INC
27610	LA FITNESS
27640	MORENO BEACH URGENT CARE CEN
27650	SPRINT SPECTRUM LP
27660	AUTOZONE INC
27670	CARLS JR
27680	PANDA EXPRESS INC
27750	MOSS BROS GERMAN INC
	MOSS BROS HYUNDAI INC
27810	MORENO VALLEY DODGE
	MOSS BROS CJD INC
27910	MORENO VALLEY IMPORTS INC
28040	MORENO BEACH FIRE STATION
	RIVERSIDE COUNTY OF
29800	SKECHERS USA INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

FIR AVE 2014

21625 BEAR VALLEY ELEMENTARY PTA
26125 MORENO VALLEY UNIFIED SCHL DST
PTA CALIFORNIA CONGRESS OF PAR
26131 LIMA, MIKE
26141 FELIX, JACKLINE
26151 MARSHMAN, STEVE
26161 KELLEY R PLUMBING SERVICE
TRUJILLO, MANUEL A
26171 MATTHEWIS, DEBBIE P
26180 MASCULINO, NELLY A
26181 GUERRERO, SERRANO O
26191 LOPEZ, ANDRES
26208 GONZALEZ, JULIO
26211 COLEMAN, KEM D
26221 HUGHES, RASHAD C
26222 TRAM, PHUOC T
26231 KNJN LLC
NICOLLE, KYUNGHI
26236 RAMOS, ELVIA
26250 YOUNG, ANDREW C
26251 BENGARD, GERARD A
26261 MCPHERSON, ROBERT W
26264 LLAMAS, LUIS A
26271 ROJO-TAVAREZ, FRANCISCO J
26278 TRUNG, THUY T
26281 HERNANDEZ, LEONOR H
26292 LARIOS, SERGIO E
26295 HARPER, BETSY B
26305 SCHMITTLE, GEORGE R
26306 ZHEN, WEI
26315 ZERMENO, ROSALBA M
26320 ALOI, ALVARO
26325 RICHARD, BRENT J
26334 BEST SECRET SHOPPER
CANADY, MILTON C
26335 OCCUPANT UNKNOWN,
26348 ZAYAS, LUIS A
26526 PINEDA, ELMER F
RAINBOW CHEM-DRYII
26536 DAVIS, TERRY P
26546 CALDERON, ARTHUR J
26556 ENRIQUEZ, SHERWIN C
26566 DIVAS 4 GOD ELEGANT FAUX FURS
SMITH, GINO J
26576 NGUYEN, TONY M
26586 HO, JENNIFER
26596 VILLA, MARIO A
26606 CAPONPON, LAWRENCE M
26680 FRANK, JIMMIE R
26681 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

FIR AVE 2014 (Cont'd)

26692 LARIOZ, ZNNY
26704 VASQUEZ, ROBERT
26716 ROMAN, MOISES
26721 YOUNG, JOHN E
26728 COLEY-WALK, LINDA C
26752 JOHNSON, LESTER A
LAJ ENTERPRISES
26764 HSU, LUNG C
26776 DELA, CRUZ
26788 FINGH, RANJIT
26800 HOLDEN FAMILY CHILD CARE
ZHU, JIAN M
26812 GONZALEZ, MANUEL R
26824 DELEON, CARMELITA M
26930 REDDEN, WILLIAM D
27020 US BANK NATIONAL ASSOCIATION
27030 JACK IN BOX 5394
27040 CHEVRON CORPORATION
STONERIDGE FUELS
27050 CHILIS INC
27060 JPMORGAN CHASE BANK NAT ASSN
28855 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

REDLANDS BLVD 2014

11010 YODER, IRA L
11045 ROBLEDO, RICARDO
11140 TRAILSEEKERS OF MORENO VALLEY
11150 OCCUPANT UNKNOWN,
11390 FLOWERS KEITH O NEIL
FLOWERS, KEITH O
11420 ADKINS, RICHARD L
11630 WEAVER, ARLENE M
11640 WEAVER, PETER G
11657 WALTEMEYER, DAVID L
11790 ENRIQUEZ, JUAN
11810 DAVENPORT, MICAH R
11817 RAMOS, MARCOS M
11820 HYDE, MARIE E
11823 ZIEMER, CHARLES A
11840 RIDDLE, TODD L
11860 TORRES, THOMAS L
11881 CUED, DAVID
11935 OCCUPANT UNKNOWN,
12212 FERNANDEZ, TONY
12264 JENKINS, DEBORRAH
MAY, LILLIAN
ROMERO, DORIS N
TOWNSON, J
12286 ROCCHI, FRANK M
12312 BECERRA, RAMIROSY
12314 OCCUPANT UNKNOWN,
12318 FITHIAN, EDWARD W
12328 RODELA, DANA
12405 TAYLOR, SHASTA
12520 OCCUPANT UNKNOWN,
12915 HALL, ADAM B
M L HALL CONSTRUCTION
13635 RAWSON, HOLLY R
WEST COAST CURBING
13655 AZ ENTERPRISES LLC
WILSON, MURDOCH A
13675 BROOKS, ROY A
13715 FOY, DEBORA A
13725 RJ HAGBERG ROOFING
13745 CENOVIO DEL TORO
DEL, MAGDALENA
13760 OCCUPANT UNKNOWN,
13793 HIGHWAY AND HEDGES INFORMATION
OVERTON, SHELIA
13824 JOHNSON, CLARENCE B
13831 LOPEZ, MARIA L
13838 JOHNSON, CLARENCE B
13851 JACKSON, DAVID M
13866 NUNEZ, BETTY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

REDLANDS BLVD 2014 (Cont'd)

13883 OCCUPANT UNKNOWN,
13886 OCCUPANT UNKNOWN,
13898 VAZQUEZ, GABRIELA
13909 OSIO, RAMIRO
13910 LIZARRAGA, GARY
13920 FLORES, JUANA
13925 HERNANDEZ, JORGE
13935 IBARRA, MARIA G
13955 LHEUREUX, HAROLD L
13960 MARTINEZ, GHENGHIS
14242 HOLT, DONALD A

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCALYPTUS AVE 2010

27100	COLE VISION CORPORATION
	F Y EYE OPTOMETRY
	TARGET CORPORATION
27110	BAJA FRESH
	NASTON STREET SUBWAY LLC
	NOSTI DENTAL CORP
	RED PERSIMMON NAIL & SPA
	STONERIDGE DENTAL GRP & ORTHD
27120	FISH SHACK
	GAME STORE
	GG ENTERPRISES INC
	PLAY N TRADE
	VERIZON WIRELESS
27130	JAMBA JUICE COMPANY
	T MOBILE
	VISTERRA CREDIT UNION
27140	BOBS BIG BOY MORENO VALLE
	ROUND TABLE DEVELOPMENT CO
	STONERIDGE RESTAURANT GRP LL
27150	MARYS HALLMARK SHOP 1
27180	DRESS BARN INC
27200	KOHLS CORPORATION
27210	FAMOUS FOOTWEAR BROWN SHO
27300	OFFICEMAX NORTH AMERICA INC
27680	PANDA EXPRESS INC
27810	MORENO VALLEY DODGE
27910	MORENO VALLEY IMPORTS INC
27990	MOSS BROS TOYOTA INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

FIR AVE 2010

21625	BEAR VALLEY ELEMENTARY PTA
26125	BEAR VALLEY PTA
	MORENO VALLEY UNIFIED SCHL DST
26131	MCPHERSON, SHERRY A
26141	MARTINEZ, EFRAIN B
26151	MARSHMAN, STEVE
26161	TRUJILLO, MANUEL A
26166	RAMIREZ, MARTIN L
26171	MATTHEWIS, DEBBIE P
26180	MASCULINO, NELLY
26181	SERRANO, OSCAR G
26191	BEASLEY, WALTER E
26194	ACEVES, ARMANDO P
26208	AGUILAR, RODOLFO R
26211	COLEMAN, SUSAN J
26221	HUGHES, TERRI L
26222	OCCUPANT UNKNOWN,
26231	KNJN LLC
26236	OCCUPANT UNKNOWN,
26241	ORTIZ, FRANCISCO J
26250	YOUNG, TOUZALIN E
26251	BENGARD, GERARD A
26261	MCPHERSON, ROBERT W
26264	JOYCE, TIMOTHY J
26271	OLVERA, JAHAZIEL
26278	TRUNG, THUY T
26281	HERNANDEZ, LEONOR H
26292	LARIOS, SERGIO E
26295	HARPER, BETSY B
26305	OCCUPANT UNKNOWN,
26306	OCCUPANT UNKNOWN,
26315	ZERMENO, GUADALUPE
26320	GONZALES, EDWARD D
26325	RICHARD, DONNA M
26334	CANADY, CAROL S
26335	HERNANDEZ, ENOC
26348	ZUBIATE, DENISE
26526	DRY FAST
	PINEDA, ELMER F
	RAINBOW CHEM-DRYII
26536	DAVIS, TERRY P
26546	CALDERON, EVA
26566	WILDER, MELISSA
26576	JOHNSON, BRENDA K
26586	HO, JENNIFER
26596	OCCUPANT UNKNOWN,
26606	LABRIE, SHAUN D
26680	FRANK, CHESTER
26692	LARIOZA, ZENY D
26704	VASQUEZ, ROBERT

FIR AVE 2010 (Cont'd)

26716	ROY, PETER A
26721	YOUNG, JOHN E
26728	COLEY, WALK L
26752	JOHNSON, LESTER A
	LAJ ENTERPRISES
26764	HSU, LEVI
26776	DELA, CRUZ
26788	SINGH, JASPAL
26800	HOLDEN, HATTIE
26812	GONZALEZ, MANUEL R
26824	DELEON, CARMELITA M
26930	REDDEN, BEN C
27020	US BANK NATIONAL ASSOCIATION
27030	JACK IN BOX 5394
27040	STONERIDGE FUELS
27050	CHILIS INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCALYPTUS AVE 2005

27810 MORENO VALLEY DODGE
27910 MORENO VALLEY IMPORTS INC
27990 STREBOR LAND & DEVELOPMENT LLC
STREBOR LLC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

FIR AVE 2005

26125	MORENO VALLEY UNIFIED SCHL DST
26131	MCPHERSON, SHERRY A
26141	MARTINEZ, EFRAIN
26151	FUNKHOUSER, NADENE S
26161	ESTERS, CORLEAN S
26166	RAMIREZ, MARTIN
26180	BELARDE, ADRIANO J
26191	BEASLEY, WALTER E
26194	ACEVES, ARMANDO P
26208	PHAM, JANET
26211	COLEMAN, SUSAN J
26221	GARCIA, HAYWARD
26222	TRAM, SANH S
26236	MORALES, SESINANDO B
26241	ORTIZ, FRANCISCO J
26250	YOUNG, TOUZALIN
26251	BENGARD, GERARD A
26261	MCPHERSON, ROBERT W
26264	JOYCE, TIMOTHY J
26271	PHAMANY, TAYPHRACHANH
26278	TRUONG, THUY T
26281	LOPEZ, GUILLERMO P
26292	LARIOS, SERGIO E
26295	HAPER, BETSY
26305	SCHMITTLE, GEORGE R
26306	MERCADO, RHODA
26315	OCCUPANT UNKNOWN,
26325	RICHARD, DONNA M
26334	CANADY, CAROL S
26335	OCCUPANT UNKNOWN, QUENTIN & KERSTIN TRANSPORT
26345	BREKKE, ROBERT J
26681	OCCUPANT UNKNOWN,
26710	OCCUPANT UNKNOWN,
26721	YOUNG, JOHN E
26740	OCCUPANT UNKNOWN,
26930	REDDEN, WILLIAM D
28855	AHEARN, K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

REDLANDS BLVD 2005

11010 YODER, IRA L
11150 HUMBARGER, CHRISTINA F
11390 FLOWERS, KEITH O
11420 DAVIS, TROY
11557 CORPORATION OF PRESIDENT OF TH
11630 WEAVER, PETER G
11657 WALTEMEYER, DAVID L
11790 GODWIN, DANNY R
11810 DAVENPORT, MICAH R
11817 HARRISON, STEVEN D
11820 BAKER, RICHARD A
11823 ZIEMER, CHARLES A
11840 RIDDLE, TODD L
11860 TORRES, MOSES
11881 OCCUPANT UNKNOWN,
11935 SAWYER, MILTON S
12212 OCCUPANT UNKNOWN,
12264 STONER, BEN
12286 OCCUPANT UNKNOWN,
12312 BURDICK, NICOLE M
12314 NORIEGA, MARSHALL
12318 FITHIAN, EDWARD W
12328 BANKHEAD, JEREMY
12405 TAYLOR, JOHN
12520 ROGERS, DAVE
12915 HALL, ADAM B
12925 IGNACIO, MANUEL
12981 HALL, P
13100 KIM STOKKE
13635 RAWSON, HOLLY R
13655 AZ ENTERPRISES LLC
COLANGELO, LYNO L
13675 BLACKBROOK ASSOC
BROOKS, ROY A
13715 FOY, DEBORA A
13725 HAGBERG, RUSSELL J
RJ HAGBERG ROOFING
13745 MAY RESTAURANT
WILLIAMS, YOMEI
13760 FIERRO, RICHARD
13792 PANNO, MICHAEL F
13824 DAVIS, ALICIA J
13831 MANOR, GALE A
13838 JOHNSON, CLARENCE B
13851 OCCUPANT UNKNOWN,
13883 LABELLE, MICHAEL J
13886 BUSH, DUNCAN T
13898 CADLE, EDWARD A
13909 SCHOONOVER, EMA L
13910 VALDEZ, JAVIER G

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

REDLANDS BLVD 2005 (Cont'd)

13920 OCCUPANT UNKNOWN,
13935 VALDEZ, GREIDEE G
13955 LHEUREUX, HAROLD L
13960 HOLM, DEBBIE K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCALYPTUS AVE 2000

27810 MORENO VALLEY DODGE
27910 MORENO VALLEY IMPORTS INC
27990 MORENO VALLEY MOTORS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

FIR AVE 2000

26125	MORENO VLY UNIFIED SCHL DST
26151	OCCUPANT UNKNOWN,
26161	OCCUPANT UNKNOWN,
26171	MATTHEWIS, DEBBIE
26181	PADILLA, ADRIANA
26191	BEASLEY, WALTER
26211	BUTLER, PERRY S
26221	OCCUPANT UNKNOWN,
26241	ORTIZ, JAVIER
26251	BENGARD, GERARD
26271	OCCUPANT UNKNOWN,
26295	HAPER, BETSY
26305	OCCUPANT UNKNOWN,
26325	RICHARD, DONNA M
26345	BREKKE, ROBERT J
26681	OCCUPANT UNKNOWN,
26710	OCCUPANT UNKNOWN,
26721	JOHNSON, TERRY D
26740	HARRIS, MURRAY T
26930	REDDEN, BILL D
28855	LATHAM, JACKSON D

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

REDLANDS BLVD 2000

11045 OCCUPANT UNKNOWN,
11150 JORDAN, ROSS
11390 FLOWERS, KEITH O
11420 WILLIAMS, SUZANNE P
11630 WATERS, MARY R
11657 WALTEMEYER, DAVID L
11790 OCCUPANT UNKNOWN,
11810 DAVENPORT, M
11817 OCCUPANT UNKNOWN,
11820 OCCUPANT UNKNOWN,
11823 CHARLES ZIEMER
OCCUPANT UNKNOWN,
11860 OCCUPANT UNKNOWN,
11881 OCCUPANT UNKNOWN,
11935 OCCUPANT UNKNOWN,
12212 HERMOSILLO, FERMIN
12312 OCCUPANT UNKNOWN,
12318 FITHIAN, EDWARD W
12328 OCCUPANT UNKNOWN,
12405 TAYLOR, JOHN
12925 OCCUPANT UNKNOWN,
12981 HALL, ROSLYNE J
13635 COX, ABRAHAM
13655 COLANGELO, LYNO L
13675 BROOKS, ROY A
13725 OCCUPANT UNKNOWN,
13760 STERLING, BETTY J
13792 PANNO, MIKE
13824 OCCUPANT UNKNOWN,
13831 MANOR, GALE
13851 OCCUPANT UNKNOWN,
13866 OCCUPANT UNKNOWN,
13883 LABELLE, MICHAEL
13898 CHRISMAN, KEITH A
13909 MARTINDALE, JARRETT
13910 OCCUPANT UNKNOWN,
13920 OCCUPANT UNKNOWN,
13935 FULTON, RICK

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

EUCALYPTUS AVE 1995

25178	KIEFFER Dolores	242-7753	
	KIEFFER John	242-7753	
25241	WILKES Bruce B	247-3826	9
25620	XXXX	00	

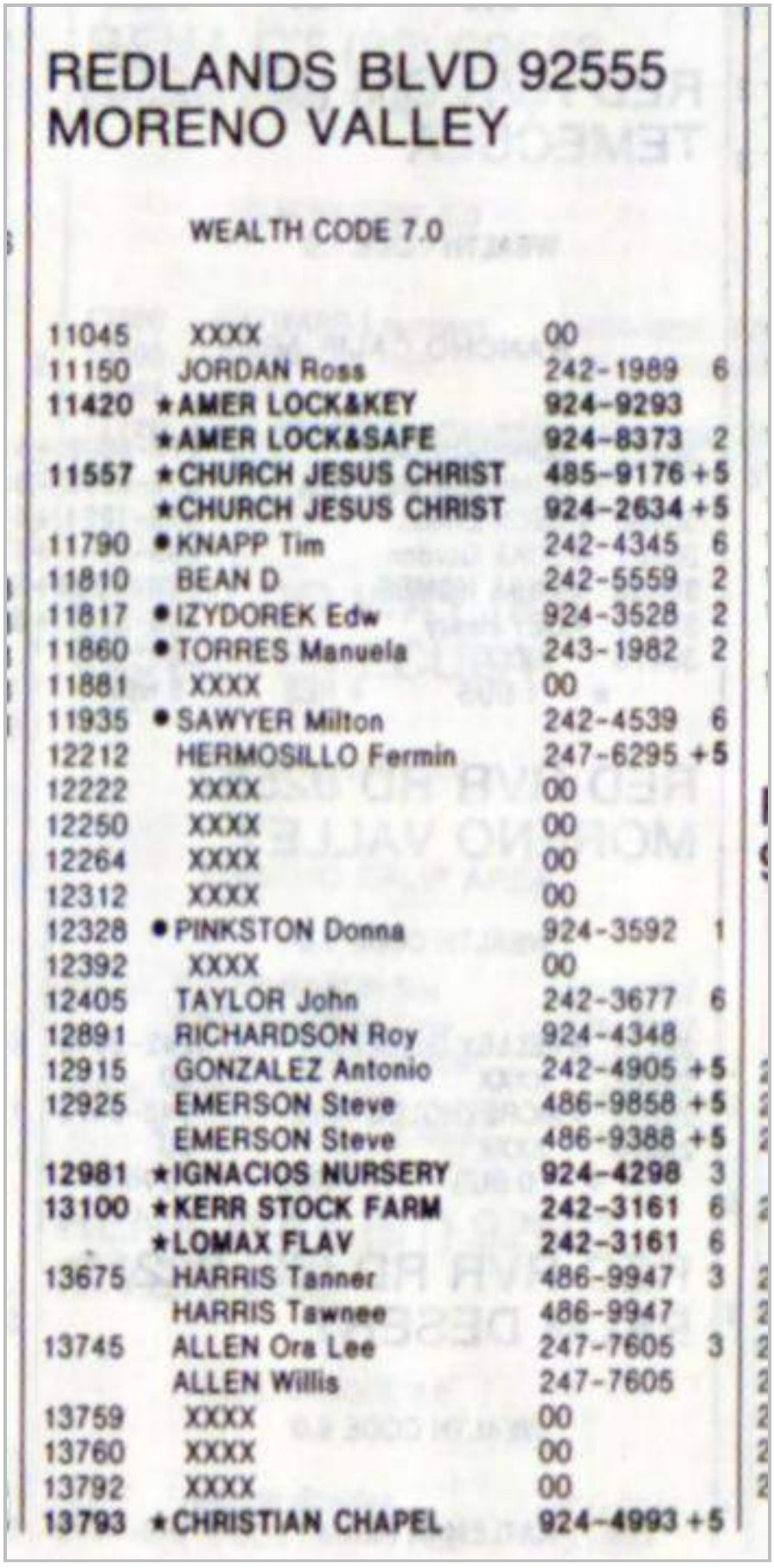
ZIP CODE 92555

27810	XXXX	00	
27910	*MORENO VLY HONDA	486-9366	3
	*MORENO VLY NISSAN	486-9288	+5
27990	*MORENO VLY TOYOTA	247-8000	2
	*TOYOTA MORENO VLY	247-8000	2

* 12 BUS 203 RES 40 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

REDLANDS BLVD 1995



REDLANDS BLVD 92555
MORENO VALLEY

WEALTH CODE 7.0

11045	XXXX	00	
11150	JORDAN Ross	242-1989	6
11420	★AMER LOCK&KEY	924-9293	
	★AMER LOCK&SAFE	924-8373	2
11557	★CHURCH JESUS CHRIST	485-9176	+5
	★CHURCH JESUS CHRIST	924-2634	+5
11790	●KNAPP Tim	242-4345	6
11810	BEAN D	242-5559	2
11817	●IZYDOREK Edw	924-3528	2
11860	●TORRES Manuela	243-1982	2
11881	XXXX	00	
11935	●SAWYER Milton	242-4539	6
12212	HERMOSILLO Fermin	247-6295	+5
12222	XXXX	00	
12250	XXXX	00	
12264	XXXX	00	
12312	XXXX	00	
12328	●PINKSTON Donna	924-3592	1
12392	XXXX	00	
12405	TAYLOR John	242-3677	6
12891	RICHARDSON Roy	924-4348	
12915	GONZALEZ Antonio	242-4905	+5
12925	EMERSON Steve	486-9858	+5
	EMERSON Steve	486-9388	+5
12981	★IGNACIOS NURSERY	924-4298	3
13100	★KERR STOCK FARM	242-3161	6
	★LOMAX FLAV	242-3161	6
13675	HARRIS Tanner	486-9947	3
	HARRIS Tawnee	486-9947	
13745	ALLEN Ora Lee	247-7605	3
	ALLEN Willis	247-7605	
13759	XXXX	00	
13760	XXXX	00	
13792	XXXX	00	
13793	★CHRISTIAN CHAPEL	924-4993	+5

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

REDLANDS BLVD 1995

..REDLANDS BLVD 92555 CONT..

13824	XXXX	00
13831	XXXX	00
13838	• JOHNSON Clarence B	924-4188
	• JOHNSON Esther C	924-4188
13883	XXXX	00
13886	BRINKLEY Jas	486-9216 +5
13898	• CHRISMAN D	247-1820 9
13909	XXXX	00
13910	XXXX	00
13920	XXXX	00
13935	FULTON Rick	243-5962 +5

* 8 BUS 38 RES 9 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

FIR AVE 1990

ZIP CODE 92360

26681	FREUND Alfred	924-3912	6
26710	HEMPHILL Ted	242-9692	6
26720	XXXX	00	
26721	JOHNSON Terry Don	242-6745	6
26740	HARRIS Murray T	00	7
	*ORCHID TREE RNCH	242-5792	
26930	REDDEN Wm D	242-9434	6
28855	CHASTAIN Randy	00	7
	GARCIA Frances	247-7259	+0
	HORN Alvin	00	4

* 18 BUS 361 RES 80 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

REDLANDS BLVD 1990

REDLANDS BLVD 92360
MORENO VALLEY

11010	SETLAK Jacob	00	4
	YODER Gene D	00	+0
11045	NGUYEN Jos	247-0157	+0
11150	JORDAN Ross	242-1989	6
11390	FLOWERS Brenda L	00	7
11420	★MAER LOCK&SAFE	924-8373	+0
	MERSON Jan S	00	4
	RAFFERTY Jack	242-1126	9
	TOAL Carol J	00	+0
11657	WALTENMEYER David L	00	
11790	KNAPP Tim	242-4345	6
11810	DAVENPORT D	242-4171	6
	DAVENPORT D	242-5559	6
11817	XXXX	00	
11820	SEARING Richard L	00	4
11823	ZIEMER Charles A	00	+0
11840	GARZA Salvador	00	7
11860	VARGAS Louie T	00	5
11881	VILLEGAS Jose	242-1745	6
11935	SAWYER Milton	242-4539	6
12181	XXXX	00	
12212	EVANS Sam	242-1018	6
12222	XXXX	00	
12250	HANSON Larry D	00	7
12264½	COPELAND Duane	247-3779	+0
12286	ROCCHI Frank	00	7
12314	COPELAND Daniel M	00	
	GUILD Darlah E	00	5
12318	FITHIAN Edward W	00	7
12328	XXXX	00	
12392	BROWN Arthur B	00	4
12405	SCHULTZ Sharon L	00	
	SHOFLER John L	00	
	TAYLOR John	242-3677	6
12891	RICHARDSON Roy	924-4348	5
12915	WALTNER J	924-4358	5
12925	CLARK Jean M	924-4158	
	CLARK John D	924-4158	
12981	SEGAT Libero	924-4465	+0
	★T N T NURSERY	924-9755	7
	TRZEPACZ Joe	00	+0
13100	HANSON L D	924-9265	6
	HUNT Nikki	247-9235	+0
	JACOBSON Traci	247-1556	+0

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

REDLANDS BLVD 1990

REDLANDS BLVD		92360 CONT	
	★KERR STOCK FARM	242-3161	6
	LOMAX Flav	242-3161	6
13745	LAI Yi H	00	+0
	WILLIAMS Ronald	242-1547	6
13759	MOORE Anita D	00	4
13760	STERLING Betty	924-4772	5
13792	XXXX	00	
13824	LAWRENCE John	242-5506	7
13831	XXXX	00	
13838	JOHNSON Clarence B	924-4188	
	JOHNSON Esther C	924-4188	
13851	ROWE Jas R	924-4770	5
13883	HANEY Floyd	242-1950	6
13886	APPEL M A	242-5685	6
13898	CHRISMAN D	247-1820	9
13909	XXXX	00	
13910	BRIMHALL Neal R	247-6329	+0
	STAUDE Paula J	00	+0
13935	LARA Gabriel	247-7373	+0
	LARA Juanita	247-7373	+0
13955	XXXX	00	
14057	PENNELL Cheryl	924-4365	
	PENNELL Wm	924-4365	
★	3 BUS 64 RES	15 NEW	

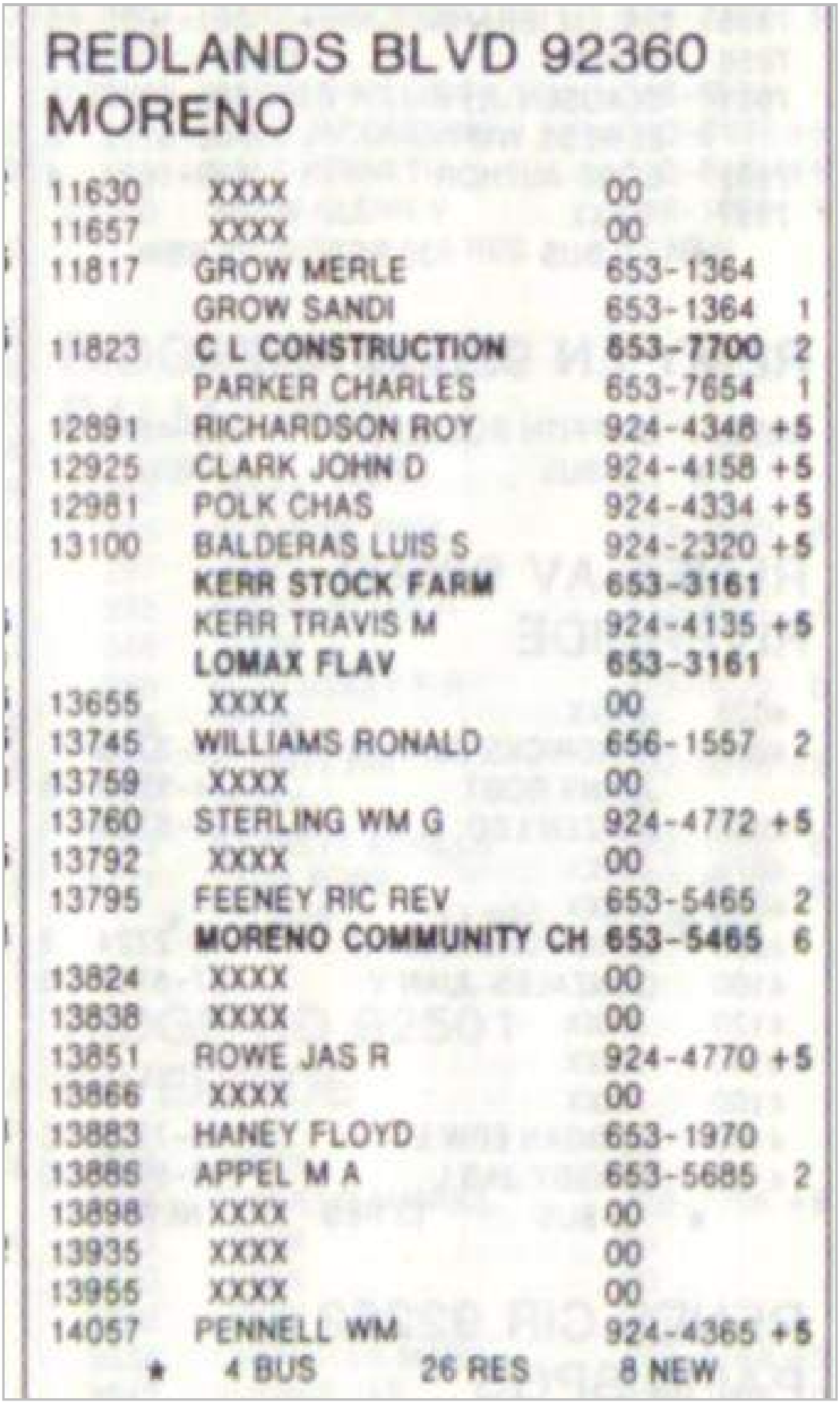
Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

FIR AVE 1985

26577	BUCK BYRON	924-1111	+5
	SUNRISE BAPTIST CH	924-1111	+5
26710	HEMPHILL TED	653-9692	9
26720	XXXX	00	
26721	JOHNSON TERRY DON	653-6745	6
26740	ORCHID TREE RNCH	653-5792	8
26930	REDDEN WM D	653-9434	3
28855	KLINGENMAIER F	924-4145	+5
*	13 BUS 153 RES	40 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

REDLANDS BLVD 1985



REDLANDS BLVD 92360
MORENO

11630	XXXX	00	
11657	XXXX	00	
11817	GROW MERLE	653-1364	
	GROW SANDI	653-1364	1
11823	C L CONSTRUCTION	653-7700	2
	PARKER CHARLES	653-7654	1
12891	RICHARDSON ROY	924-4348	+5
12925	CLARK JOHN D	924-4158	+5
12981	POLK CHAS	924-4334	+5
13100	BALDERAS LUIS S	924-2320	+5
	KERR STOCK FARM	653-3161	
	KERR TRAVIS M	924-4135	+5
	LOMAX FLAV	653-3161	
13655	XXXX	00	
13745	WILLIAMS RONALD	656-1557	2
13759	XXXX	00	
13760	STERLING WM G	924-4772	+5
13792	XXXX	00	
13795	FEENEY RIC REV	653-5465	2
	MORENO COMMUNITY CH	653-5465	6
13824	XXXX	00	
13838	XXXX	00	
13851	ROWE JAS R	924-4770	+5
13866	XXXX	00	
13883	HANEY FLOYD	653-1970	
13885	APPEL M A	653-5685	2
13898	XXXX	00	
13935	XXXX	00	
13955	XXXX	00	
14057	PENNELL WM	924-4365	+5

4 BUS 26 RES 8 NEW

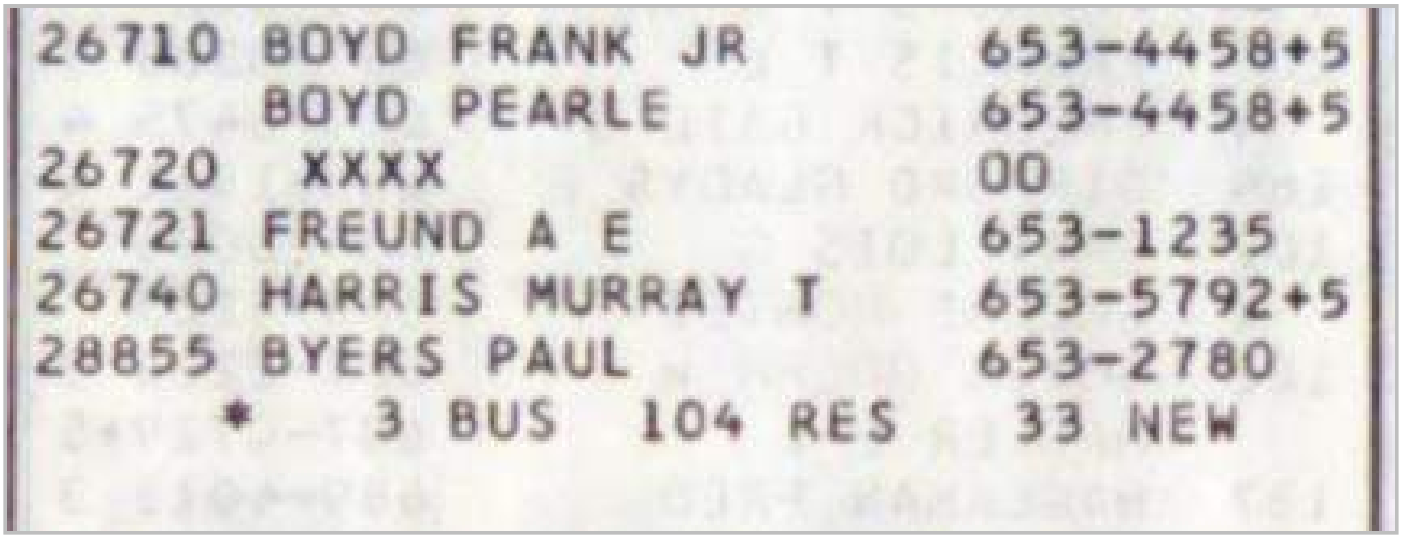
Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

FIR AVE 1980

26710	HEMPHILL TED	653-9692	9
26720	XXXX	00	
26721	JOHNSON TERRY DON	653-6745	6
26740★	ORCHID TREE RNCH	653-5792	8
28855	FAULKNER GARY	653-1783	8
★	4 BUS 123 RES	33 NEW	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

FIR AVE 1975



26710	BOYD FRANK JR	653-4458+5
	BOYD PEARLE	653-4458+5
26720	XXXX	OO
26721	FREUND A E	653-1235
26740	HARRIS MURRAY T	653-5792+5
28855	BYERS PAUL	653-2780
	* 3 BUS 104 RES 33 NEW	

APPENDIX F

RCDEH Records Response letters

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

STEVE VAN STOCKUM, DIRECTOR

RELEASE OF RECORDS RESPONSE

January 31, 2019

Service Request No: 43729

LOR Geotechnical Group, Inc.
6121 Quail Valley Court
Riverside, CA 92507
Attn: Kevin Osmun

Your request concerning **Hazardous Materials Management Records** has been received and a file search has been conducted. The appropriate action has been taken.

Site Address	City	Records Found
28855 12891 12915 12925 12981 Redlands Blvd.	**Moreno Valley**	☐ **YES** ☒ **NO**
THIS IS NOT AN INVOICE	**Estimated Cost**	**$0.00**

If no records are found, no further action will be taken.

If records are found, please contact our office at (951) 358-5055 to schedule a file review appointment. Records will be available for 30 days from the date of this letter, after which a new Records Request will need to be submitted.

** There is a clerical records research fee of **$.50 for the first page, plus $.10 per additional page **Records will not be made available until this fee is paid****

Other fees may apply

Note: Additional time for processing may be required

Appointments are scheduled in one (1) hour increments, not to exceed two (2) hours.

Environmental Protection & Oversight Division
Hazardous Materials Management Branch
Attn: Records Management
P.O. Box 7909
Riverside, CA 92513-7909
Ph: (951) 358-5055
Fax (951) 358-5342

*additional fees may include costs for appt. cancellation/no show, time per service, scan/fax/mail of documents, cd/dvd

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

STEVE VAN STOCKUM, DIRECTOR

RELEASE OF RECORDS RESPONSE

January 31, 2019

Service Request No: 43730

LOR Geotechnical Group, Inc.
6121 Quail Valley Court
Riverside, CA 92507
Attn: Kevin Osmun

Your request concerning **Hazardous Materials Management Records** has been received and a file search has been conducted. The appropriate action has been taken.

Site Address	City	Records Found
28855 Fir Ave.	**Moreno Valley**	☐ **YES** ☒ **NO**
THIS IS NOT AN INVOICE	**Estimated Cost**	**$0.00**

If no records are found, no further action will be taken.

If records are found, please contact our office at (951) 358-5055 to schedule a file review appointment. Records will be available for 30 days from the date of this letter, after which a new Records Request will need to be submitted.

** There is a clerical records research fee of **$.50 for the first page, plus $.10 per additional page **Records will not be made available until this fee is paid****

Other fees may apply

Note: Additional time for processing may be required

Appointments are scheduled in one (1) hour increments, not to exceed two (2) hours.

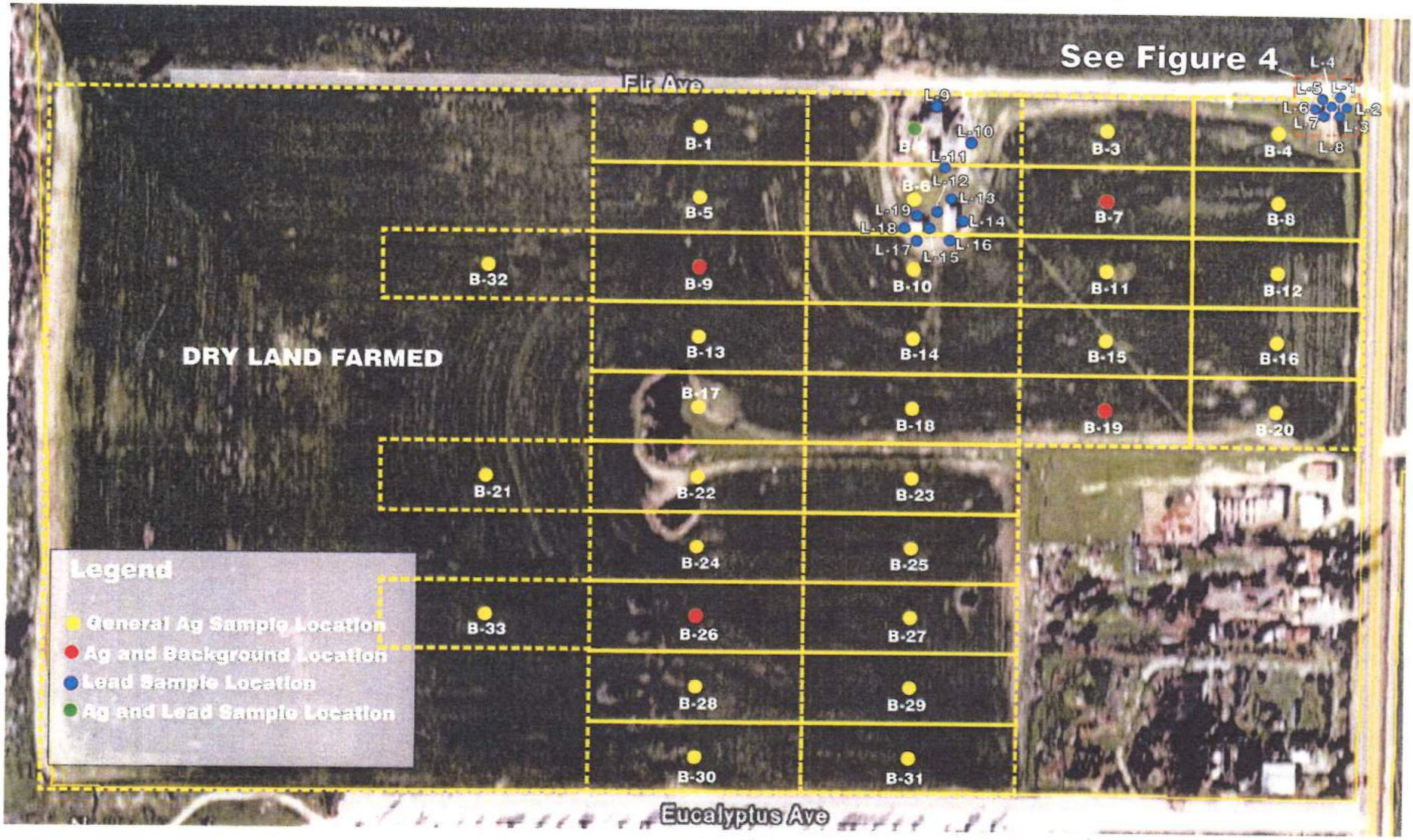
Environmental Protection & Oversight Division
Hazardous Materials Management Branch
Attn: Records Management
P.O. Box 7909
Riverside, CA 92513-7909
Ph: (951) 358-5055
Fax (951) 358-5342

*additional fees may include costs for appt. cancellation/no show, time per service, scan/fax/mail of documents, cd/dvd

APPENDIX G

TPC Sample Location Map, Laboratory Test Results, and Site Specific Residential Hazard Index and Cancer Risk Assessment

Site Sampling Plan

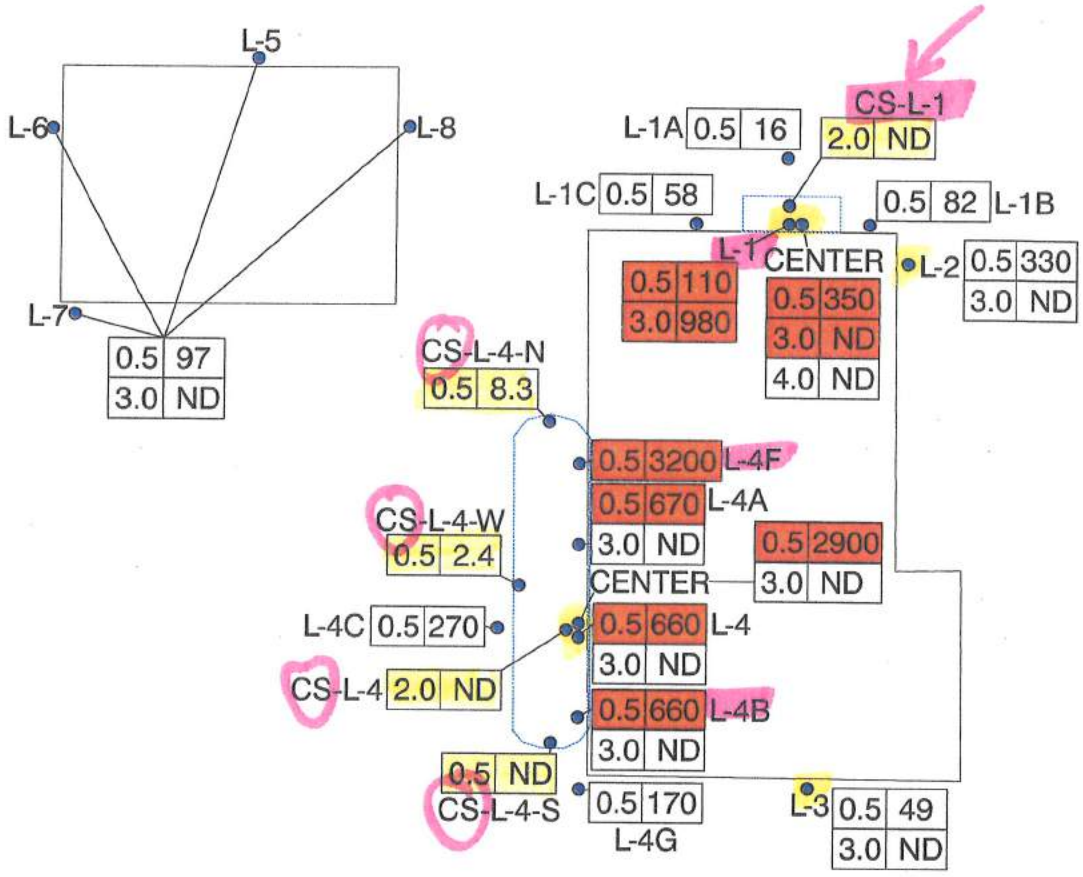


Moreno Valley School District
Proposed High School #5

The Planning Center • **Figure 3**

0' 375'

Step-out Sample Locations



Sample depth (feet below ground surface)

0.5 660 — Total chlordane concentration (micrograms per kilogram); orange shading indicates sample location has been removed

3.0 ND — Not detected above laboratory detection limits

Sample location

Housekeeping area

Sample names beginning with CS are confirmation samples

Note: Total chlordane equals technical chlordane plus alpha-chlordane plus gamma-chlordane

Scale in Feet

0 10 20

TABLE 2
SUMMARY TABLE OF ORGANOCHLORINE PESTICIDES IN SOIL
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

Concentration (micrograms per kilogram [µg/kg])										
Sample Number	Sample Date	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Chlordane	Dieldrin	gamma-Chlordane	Heptachlor	Heptachlor epoxide
B-1, B-2@0.5	9/6/2006	ND<2.0	4.3	ND<2.0	5.5	48	ND<2.0	6.2	ND<1.0	1.7
B-3, B-4@0.5	9/6/2006	ND<2.0	2.2	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-5, B-6@0.5	9/6/2006	ND<2.0	26	7.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-5DUP, B-6DUP@0.5	9/6/2006	ND<2.0	39	7.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-7, B-8@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-9, B-10@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-11, B-12@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-13, B-14@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-15, B-16@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-17, B-18@0.5	9/6/2006	ND<2.0	16	16	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-19, B-20@0.5	9/6/2006	ND<2.0	6.8	2.5	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-21, B-32@0.5	9/6/2006	ND<2.0	7.0	2.4	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-22, B-23@0.5	9/6/2006	ND<2.0	190	110	ND<1.0	ND<8.5	7.0	ND<1.0	ND<1.0	ND<1.0
B-22@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-23@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-24, B-25@0.5	9/6/2006	ND<2.0	43	21	ND<1.0	ND<8.5	2.6	ND<1.0	ND<1.0	ND<1.0
B-26, B-27@0.5	9/6/2006	ND<2.0	81	74	ND<1.0	ND<8.5	2.9	ND<1.0	ND<1.0	ND<1.0
B-28, B-29@0.5	9/6/2006	2.5	110	69	ND<1.0	ND<8.5	3.1	ND<1.0	ND<1.0	ND<1.0
B-30, B-31@0.5	9/6/2006	ND<2.0	29	12	ND<1.0	ND<8.5	6.8	ND<1.0	ND<1.0	ND<1.0
B-33@0.5	9/6/2006	ND<2.0	20	3.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
B-33DUP@0.5	9/6/2006	ND<2.0	9.7	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-1, L-2, L-3, L-4@0.5	9/6/2006	ND<2.0	8.8	11	26	230	ND<2.0	25	ND<1.0	ND<1.0
L-1, L-2, L-3, L-4@3.0	9/6/2006	ND<2.0	ND<2.0	2.6	9.7	110	2.3	10	ND<1.0	1.2
L-1@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	6.6	91	ND<2.0	10	ND<1.0	ND<1.0
L-1@3.0	9/6/2006	ND<2.0	2.9	21	73	810	9.6	100	1.0	5.4
L-1CENTER@0.5	10/4/2006	ND<2.0	6.6	7.7	2.3	16	ND<2.0	1.6	ND<1.0	ND<1.0
L-1CENTERDUP@0.5	10/4/2006	ND<2.0	2.6	7.8	29	290	6.2	31	ND<1.0	2.5
L-1CENTER@3.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-1CENTERDUP@3.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-1CENTER@4.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-1CENTERDUP@4.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-1A@0.5	10/4/2006	ND<2.0	ND<2.0	ND<2.0	1.1	14	ND<2.0	1.1	ND<1.0	ND<1.0
L-1B@0.5	10/4/2006	ND<2.0	ND<2.0	5.1	9.0	62	ND<2.0	11	ND<1.0	ND<1.0
L-1C@0.5	10/4/2006	ND<2.0	ND<2.0	4.4	7.9	41	2.3	9.0	ND<1.0	ND<1.0
L-2@0.5	9/6/2006	ND<2.0	ND<2.0	ND<2.0	25	260	6.2	24	ND<1.0	1.3
L-2@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-3@0.5	9/6/2006	ND<2.0	ND<2.0	2.9	4.3	40	ND<2.0	4.6	ND<1.0	ND<1.0
L-3@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-4@0.5	9/6/2006	ND<2.0	18	35	53	540	ND<2.0	67	ND<1.0	4.6
L-4@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-4CENTER@0.5	10/4/2006	ND<2.0	38	56	260	2400	ND<2.0	260	2.2	ND<1.0
L-4CENTER@3.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-4A@0.5	10/4/2006	ND<2.0	19	20	66	540	ND<2.0	64	ND<1.0	5.4
L-4A@3.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-4B@0.5	10/4/2006	ND<2.0	16	22	58	540	ND<2.0	58	ND<1.0	7.4
L-4B@3.0	10/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	4.9
L-4C@0.5	10/4/2006	ND<2.0	11	9.3	23	220	ND<2.0	23	ND<1.0	ND<1.0
L-4F@0.5	10/4/2006	ND<2.0	41	42	380	2400	ND<2.0	390	7.1	ND<1.0
L-4G@0.5	10/4/2006	ND<2.0	3.8	4.6	17	140	ND<2.0	14	ND<1.0	2.3
L-5, L-6, L-7, L-8@0.5	9/6/2006	ND<2.0	2.5	2.5	6.2	91	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-5, L-6, L-7, L-8@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-9, L-10, L-11@0.5	9/6/2006	ND<2.0	7.5	ND<2.0	12	80	ND<2.0	12	ND<1.0	4.8
L-9DUP, L-10DUP, L-11DUP@0.5	9/6/2006	ND<2.0	6.6	3.9	17	100	ND<2.0	18	ND<1.0	5.0
L-9, L-10, L-11@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-9DUP, L-10DUP, L-11DUP@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-12, L-13, L-14, L-16@0.5	9/6/2006	ND<2.0	8.9	7.1	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-12, L-13, L-14, L-16@3.0	9/6/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-15, L-17, L-18, L-19@0.5	9/6/2006	6.0	190	31	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
L-15, L-17, L-18, L-19@3.0	9/6/2006	ND<2.0	7.9	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
EQUIPMENT BLANKS										
Concentration (micrograms per liter [µg/l])										
EB090606	9/6/2006	ND<0.050	ND<0.050	ND<0.050	ND<0.025	ND<0.25	ND<0.050	ND<0.025	ND<0.025	ND<0.025
EB100406	10/4/2006	ND<0.050	ND<0.050	ND<0.050	ND<0.025	ND<0.25	ND<0.050	ND<0.025	ND<0.025	ND<0.025

Notes:

Samples analyzed by EPA Method 8081A.
The complete laboratory analytical reports are included in Appendix E.
ND - Non detect at the established method detection limit.
The following pesticides were not detected in any samples analyzed: Aldrin, alpha-BHC, beta-BHC, delta-BHC, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, gamma-BHC, Methoxychlor and Toxaphene
Highlighted sample results were removed in housekeeping activity on October 23, 2006

TABLE 3
SUMMARY TABLE OF ORGANOCHLORINE PESTICIDES IN CONFIRMATION SAMPLES
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

		Concentration (micrograms per kilogram [µg/kg])								
Sample Number	**Sample Date**	**4,4'-DDD**	**4,4'-DDE**	**4,4'-DDT**	**alpha-Chlordane**	**Chlordane**	**Dieldrin**	**gamma-Chlordane**	**Heptachlor**	**Heptachlor epoxide**
CS-L-1@2.0	10/23/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
CS-L-4@2.0	10/23/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
CS-L-4-S@0.5	10/23/2006	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
CS-L-4-W@0.5	10/23/2006	ND<2.0	ND<2.0	ND<2.0	2.4	ND<8.5	ND<2.0	ND<1.0	ND<1.0	ND<1.0
CS-L-4-N@0.5	10/23/2006	ND<2.0	ND<2.0	ND<2.0	8.3	ND<8.5	ND<2.0	ND<1.0	ND<1.0	2.1
EQUIPMENT BLANKS										
		Concentration (micrograms per liter [µg/L])								
EB102306	10/23/2006	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<0.025	ND<0.25	ND<0.025	ND<0.025	ND<0.025

Notes:

Samples analyzed by EPA Method 8081A.

The complete laboratory analytical reports are included in Appendix G.

The following pesticides were non-detect for all confirmation samples analyzed: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC, Gamma-Chlordane, Heptachlor, Methoxychlor and Toxaphene.

ND - Non detect at the established method detection limit.

* date analyzed

TABLE 4
SUMMARY TABLE OF CAM-17 METALS IN SOIL
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

		Concentration (milligrams per kilogram [mg/kg])																
Sample Number	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (Total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
B-1@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-2@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	4.4	NA	NA	NA	NA	NA	NA	NA	NA
B-3@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-5@0.5	9/6/2006	ND<2.0	ND<1.0	75	ND<1.0	ND<1.0	12	7.6	14	4.6	ND<0.10	ND<1.0	7.9	ND<1.0	ND<1.0	ND<1.0	26	37
B-5DUP@0.5	9/6/2006	ND<2.0	ND<1.0	75	ND<1.0	ND<1.0	12	8.0	15	4.9	ND<0.10	ND<1.0	8.2	ND<1.0	ND<1.0	ND<1.0	27	38
B-7@0.5	9/6/2006	ND<2.0	ND<1.0	94	ND<1.0	ND<1.0	15	9.5	18	8.1	ND<0.10	ND<1.0	10	ND<1.0	ND<1.0	ND<1.0	32	63
B-9@0.5	9/6/2006	ND<2.0	ND<1.0	94	ND<1.0	ND<1.0	12	8.0	11	2.1	ND<0.10	ND<1.0	7.9	ND<1.0	ND<1.0	ND<1.0	28	30
B-10@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	8.0	NA	NA	NA	NA	NA	NA	NA	NA
B-11@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	6.8	NA	NA	NA	NA	NA	NA	NA	NA
B-14@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	8.5	NA	NA	NA	NA	NA	NA	NA	NA
B-15@0.5	9/6/2006	ND<2.0	ND<1.0	100	ND<1.0	ND<1.0	16	10	19	6.7	ND<0.10	ND<1.0	11	ND<1.0	ND<1.0	ND<1.0	34	58
B-18@0.5	9/6/2006	ND<2.0	ND<1.0	120	ND<1.0	ND<1.0	19	12	25	10	ND<0.10	ND<1.0	14	ND<1.0	ND<1.0	ND<1.0	38	78
B-19@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	9.9	NA	NA	NA	NA	NA	NA	NA	NA
B-21@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-23@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-25@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-27@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-29@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-30@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-33@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-33DUP@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
L-1@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	5.3	NA	NA	NA	NA	NA	NA	NA	NA
L-2@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA	NA	NA	NA	NA	NA
L-3@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA
L-4@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
L-5@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA
L-6@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
L-7@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA
L-8@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	19	NA	NA	NA	NA	NA	NA	NA	NA
L-9@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	3.9	NA	NA	NA	NA	NA	NA	NA	NA
L-9DUP@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	3.7	NA	NA	NA	NA	NA	NA	NA	NA
L-10@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA	NA	NA
L-10DUP@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA	NA
L-11@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
L-11DUP@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	17	NA	NA	NA	NA	NA	NA	NA	NA
L-12@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA	NA
L-13@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA	NA	NA	NA
L-14@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA
L-15@0..5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	6.2	NA	NA	NA	NA	NA	NA	NA	NA
L-16@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
L-17@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA
L-18@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	8.5	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4
SUMMARY TABLE OF CAM-17 METALS IN SOIL
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

Concentration (milligrams per kilogram [mg/kg])																		
Sample Number	**Sample Date**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium (Total)**	**Cobalt**	**Copper**	**Lead**	**Mercury**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**
L-19@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA
EQUIPMENT BLANK																		
Concentration (milligrams per liter [mg/L])																		
EB090606	9/6/2006	ND<0.0050	ND<0.010	0.0034	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0030	ND<0.0050	ND<0.0050	ND<0.00020	ND<0.0050	ND<0.0050	ND<0.010	ND<0.0030	ND<0.015	ND<0.0030	0.012

Notes:
Mercury was analyzed by EPA Method 7471A; all other metals were analyzed by EPA Method 6010B.
The complete laboratory analytical reports are included in Appendix E.
ND - Non detect at the established method detection limit. NA - Not Analyzed
Highlighted samples were removed in housekeeping activity on October 23, 2006.

TABLE 5
STATISTICAL ANALYSIS OF METAL RESULTS AND BACKGROUND COMPARISON
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

		Concentration (milligrams per kilogram [mg/kg])																
Sample Number	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (Total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
B-1@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-2@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	4.4	NA	NA	NA	NA	NA	NA	NA	NA
B-3@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-5@0.5	9/6/2006	ND<2.0	ND<1.0	75	ND<1.0	ND<1.0	12	8.0	15	4.9	ND<0.10	ND<1.0	8.2	ND<1.0	ND<1.0	ND<1.0	27	38
B-7@0.5	9/6/2006	ND<2.0	ND<1.0	94	ND<1.0	ND<1.0	15	9.5	18	8.1	ND<0.10	ND<1.0	10	ND<1.0	ND<1.0	ND<1.0	32	63
B-9@0.5	9/6/2006	ND<2.0	ND<1.0	94	ND<1.0	ND<1.0	12	8.0	11	2.1	ND<0.10	ND<1.0	7.9	ND<1.0	ND<1.0	ND<1.0	26	30
B-10@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	8.0	NA	NA	NA	NA	NA	NA	NA	NA
B-11@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	6.8	NA	NA	NA	NA	NA	NA	NA	NA
B-14@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	8.5	NA	NA	NA	NA	NA	NA	NA	NA
B-15@0.5	9/6/2006	ND<2.0	ND<1.0	100	ND<1.0	ND<1.0	16	10	19	6.7	ND<0.10	ND<1.0	11	ND<1.0	ND<1.0	ND<1.0	34	58
B-18@0.5	9/6/2006	ND<2.0	ND<1.0	120	ND<1.0	ND<1.0	19	12	25	10	ND<0.10	ND<1.0	14	ND<1.0	ND<1.0	ND<1.0	38	78
B-19@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	9.9	NA	NA	NA	NA	NA	NA	NA	NA
B-21@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-23@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-25@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-27@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-29@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-30@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-33@0.5	9/6/2006	NA	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
L-1@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	5.3	NA	NA	NA	NA	NA	NA	NA	NA
L-2@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA	NA	NA	NA	NA	NA
L-3@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA
L-4@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
L-5@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA
L-6@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
L-7@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA
L-8@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	19	NA	NA	NA	NA	NA	NA	NA	NA
L-9@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	3.9	NA	NA	NA	NA	NA	NA	NA	NA
L-10@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA	NA
L-11@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	17	NA	NA	NA	NA	NA	NA	NA	NA
L-12@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA	NA
L-13@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA	NA	NA	NA
L-14@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA
L-15@0..5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	6.2	NA	NA	NA	NA	NA	NA	NA	NA
L-16@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
L-17@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA
L-18@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	6.5	NA	NA	NA	NA	NA	NA	NA	NA
L-19@0.5	9/6/2006	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA
Number of Samples		5	18	5	5	5	5	5	5	29	5	5	5	5	5	5	5	5
Number of Detects		0	0	5	0	0	5	5	5	29	0	0	5	0	0	0	5	5
Frequency		0%	0%	100%	0%	0%	100%	100%	100%	100%	0%	0%	100%	0%	0%	0%	100%	100%

TABLE 5
STATISTICAL ANALYSIS OF METAL RESULTS AND BACKGROUND COMPARISON
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

		Concentration (milligrams per kilogram [mg/kg])																
Sample Number	**Sample Date**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium (Total)**	**Cobalt**	**Copper**	**Lead**	**Mercury**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**
Maximum		-	-	120	-	-	19	12	25	36	-	-	14	-	-	-	38	76
Minimum		-	-	75	-	-	12	8	11	2	-	-	8	-	-	-	27	30
Arithmetic Mean		-	-	96.60	-	-	14.80	9.50	17.60	11.53	-	-	10.22	-	-	-	31.80	53.40
Standard Deviation		-	-	16.12	-	-	2.95	1.66	5.18	7.82	-	-	2.47	-	-	-	4.49	19.39
tn-1(0.05)		-	-	2.132	-	-	2.132	2.132	2.132	1.701	-	-	2.132	-	-	-	2.132	2.132
95% UCL		-	-	111.97	-	-	17.61	11.08	22.54	14.00	-	-	12.58	-	-	-	36.09	71.88
Reporting Limit		2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	0.10	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Background Maximum		-	-	100.00	-	-	18.00	11.00	19.00	4.00	-	-	12.00	-	-	-	39.00	45.00
Background Mean		-	-	89.00	-	-	14.50	9.20	14.50	2.90	-	-	9.60	-	-	-	32.50	35.75
Site Max Greater than Background Max?		-	-	Yes	-	-	Yes	Yes	Yes	Yes	-	-	Yes	-	-	-	No	Yes
Site Mean Greater than Background Mean?		-	-	Yes	-	-	Yes	Yes	Yes	Yes	-	-	Yes	-	-	-	No	Yes
Site Mean Greater than Background Max?		-	-	No	-	-	No	No	No	Yes	-	-	No	-	-	-	No	Yes
Reasonably Good Overlap of Site and Background Data?		-	-	Yes	-	-	Yes	Yes	Yes	Yes	-	-	Yes	-	-	-	Yes	Yes
Chemical of Potential Concern?		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
BACKGROUND DATA COLLECTED ONSITE																		
B-7@5.0	9/6/2006	ND<2.0	ND<1.0	100	ND<1.0	ND<1.0	18	11	19	4.0	ND<0.10	ND<1.0	12	ND<1.0	ND<1.0	ND<1.0	39	45
B-9@5.0	9/6/2006	ND<2.0	ND<1.0	94	ND<1.0	ND<1.0	12	8.0	11	2.1	ND<0.10	ND<1.0	7.9	ND<1.0	ND<1.0	ND<1.0	28	30
B-19@5.0	9/6/2006	ND<2.0	ND<1.0	90	ND<1.0	ND<1.0	16	9.8	17	3.2	ND<0.10	ND<1.0	11	ND<1.0	ND<1.0	ND<1.0	34	39
B-26@5.0	9/6/2006	ND<2.0	ND<1.0	72	ND<1.0	ND<1.0	12	8.0	11	2.3	ND<0.10	ND<1.0	7.5	ND<1.0	ND<1.0	ND<1.0	29	29
Number of Samples		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects		0	0	4	0	0	4	4	4	4	0	0	4	0	0	0	4	4
Frequency		0%	0%	100%	0%	0%	100%	100%	100%	100%	0%	0%	100%	0%	0%	0%	100%	100%
Maximum		-	-	100	-	-	18	11	19	4	-	-	12	-	-	-	39	45
Minimum		-	-	72.0	-	-	12.0	8.0	11.0	2.1	-	-	7.5	-	-	-	28.0	29.0
Arithmetic Mean		-	-	89.0	-	-	14.5	9.2	14.5	2.9	-	-	9.6	-	-	-	32.5	35.8
Standard Deviation		-	-	12.1	-	-	3.0	1.5	4.1	0.9	-	-	2.2	-	-	-	5.1	7.6
tn-1(0.05)		-	-	2.353	-	-	2.353	2.353	2.353	2.353	-	-	2.353	-	-	-	2.353	2.353
95% UCL		-	-	103.18	-	-	18.03	10.93	19.35	3.93	-	-	12.23	-	-	-	38.46	44.73

Notes:
Mercury was analyzed by EPA Method 7471A; all other metals were analyzed by EPA Method 6010B.
The complete laboratory analytical reports are included in Appendix E.
ND - Non detect at the established method detection limit.

TABLE 6
SITE SPECIFIC HAZARD INDEX (RESIDENTIAL) - MAXIMUM CONCENTRATIONS
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

General Exposure Factors

Exposure Frequency	(days/yr)	350
Exposure Duration	(yrs)	6
Body Weight	(kg)	15
Averaging Time	(days)	2190

Dermal exposure factors

Skin Surface Area	(cm^2/day)	5700 adult; 2900 child
Soil to Skin Adherence Factor	(mg/cm^2)	0.07 adult; 0.2 child
Dermal Absorption Factor	(unitless)	Chemical Specific
Exposure Frequency	(days/yr)	100 adult; 350 child

Ingestion Exposure Factors

Soil Ingestion Rate	(mg/day)	200
Exposure Frequency	(days/yr)	350

Inhalation Exposure Factors

Particulate Concentration	($\mu g/m^3$)	50
Inhalation Rate	(m^3/day)	10

Exposure Pathway: Dermal Contact and Soil Ingestion

Chemical	((Cs (mg/kg)	/	RfD) * (mg/kg-day)	*	0.0000128)	+	((Cs	/	RfD) (mg/kg-day)	*	3.71E-05	*	ABS (unitless)	=	Hazard Index
Zinc	78	/	3.00E-01	*	1.28E-05	+	78	/	3.00E-01	*	3.71E-05	*	0.01	=	3.42E-03
Chlordane (total)	0.330	/	5.00E-04	*	1.28E-05	+	0.330	/	5.00E-04	*	3.71E-05	*	0.05	=	9.67E-03
Heptachlor Epoxide	0.005	/	1.30E-05	*	1.28E-05	+	0.005	/	1.30E-05	*	3.71E-05	*	0.05	=	5.64E-03
Dieldrin	0.007	/	5.00E-05	*	1.28E-05	+	0.007	/	5.00E-05	*	3.71E-05	*	0.05	=	2.05E-03
4,4'-DDD	0.006	/	5.00E-04	*	1.28E-05	+	0.006	/	5.00E-04	*	3.71E-05	*	0.05	=	1.76E-04
4,4'-DDE	0.190	/	5.00E-04	*	1.28E-05	+	0.190	/	5.00E-04	*	3.71E-05	*	0.05	=	5.57E-03
4,4'-DDT	0.110	/	5.00E-04	*	1.28E-05	+	0.110	/	5.00E-04	*	3.71E-05	*	0.05	=	3.22E-03

Total Soil Ingestion and Dermal Hazard Index: 0.0298

Exposure Pathway: Inhalation of Particulates

Chemical	(Cs (mg/kg)	*	5.0E-08) (kg/m^3)	/	RfD (mg/kg-day)	*	0.639	=	Hazard Index
Zinc	78	*	5.0E-08	/	3.00E-01	*	0.639	=	8.31E-06
Chlordane (total)	0.330	*	5.0E-08	/	5.00E-04	*	0.639	=	2.11E-05
Heptachlor Epoxide	0.005	*	5.0E-08	/	1.30E-05	*	0.639	=	1.23E-05
Dieldrin	0.007	*	5.0E-08	/	5.00E-05	*	0.639	=	4.47E-06
4,4'-DDD	0.006	*	5.0E-08	/	5.00E-04	*	0.639	=	3.83E-07
4,4'-DDE	0.190	*	5.0E-08	/	5.00E-04	*	0.639	=	1.21E-05
4,4'-DDT	0.110	*	5.0E-08	/	5.00E-04	*	0.639	=	7.03E-06

Total Inhalation of Particulates Hazard Index: 0.00007

Note: Cs = Maximum Concentrations
NA = Not available
Total Chlordane is the sum of the maximum concentrations of chlordane, gamma chlordane and alpha-chlordane

CUMULATIVE HAZARD INDEX: 0.03

TABLE 7
CARCINOGENIC RISK ESTIMATE (RESIDENTIAL) - MAXIMUM CONCENTRATIONS
Proposed High School No. 5
Southwest Corner of Redlands Blvd. and Fir Ave.
Moreno Valley Unified School District
Moreno Valley, California

General Exposure Factors		
Exposure Frequency	(days/yr)	100 adult; 350 child
Exposure Duration	(yrs)	24 adult; 6 child
Body Weight	(kg)	70 adult;15 child
Averaging Time	(days)	25500
Dermal exposure factors		
Skin Surface Area	(cm^2/day)	5700 adult; 2900 child
Soil to Skin Adherence Factor	(mg/cm^2)	0.07 adult; 0.2 child
Dermal Absorption Factor	(unitless)	Chemical Specific
Exposure Frequency	(days/yr)	100 adult; 350 child
Ingestion Exposure Factors		
Soil Ingestion Rate	(mg/day)	100 adult; 200 child
Absorption Rate	(unitless)	1
Exposure Frequency	(days/yr)	100 adult; 350 child
Inhalation Exposure Factors		
Particulate Concentration	($\mu g/m^3$)	50
Inhalation Rate	(m^3/day)	20 m^3/day adult; 10 m^3/day child

Exposure Pathway: Soil Ingestion + Dermal Contact

Chemical	(Cs (mg/kg)	*	1.57x10-6	*	SFo) (mg/kg-day)$^{-1}$	+	(SFo (mg/kg-day)$^{-1}$	*	Cs (mg/kg)	*	3.71E-06	*	ABS) (unitless)	=	Excess Cancer Risk
Zinc	78.0	*	1.57E-06	*	NA	+	NA	*	78.0	*	3.71E-06	*	0.01	=	-
Chlordane (total)	0.330	*	1.57E-06	*	1.30E+00	+	1.30E+00	*	0.330	*	3.71E-06	*	0.05	=	7.53E-07
Heptachlor Epoxide	0.005	*	1.57E-06	*	5.50E+00	+	5.50E+00	*	0.005	*	3.71E-06	*	0.05	=	4.83E-08
Dieldrin	0.007	*	1.57E-06	*	1.60E+01	+	1.60E+01	*	0.007	*	3.71E-06	*	0.05	=	1.97E-07
4,4'-DDD	0.006	*	1.57E-06	*	2.40E-01	*	2.40E-01	*	0.006	*	3.71E-06	*	0.05	=	3.58E-09
4,4'-DDE	0.190	*	1.57E-06	*	3.40E-01	+	3.40E-01	*	0.190	*	3.71E-06	*	0.05	=	8.01E-08
4,4'-DDT	0.110	*	1.57E-06	*	3.40E-01	+	3.40E-01	*	0.110	*	3.71E-06	*	0.05	=	6.57E-08

Total Cancer Risk Dermal and Soil Ingestion: 1.1E-06

Exposure Pathway: Inhalation of Particulates (for non-volatiles)

Chemical	Cs (mg/kg)	*	5.00E-08 (kg/m^3)	*	0.149 ($kg/\mu g$)	*	SFi (mg/kg-day)$^{-1}$	=	Cancer Risk
Zinc	78.0	*	5.00E-08	*	0.149	*	NA	=	-
Chlordane (total)	0.330	*	5.00E-08	*	0.149	*	1.2E+00	=	2.95E-09
Heptachlor Epoxide	0.005	*	5.00E-08	*	0.149	*	5.5E+00	=	2.05E-10
Dieldrin	0.007	*	5.00E-08	*	0.149	*	1.60E+01	=	8.34E-10
4,4'-DDD	0.006	*	5.00E-08	*	0.149	*	2.40E-01	=	1.52E-11
4,4'-DDE	0.190	*	5.00E-08	*	0.149	*	3.40E-01	=	3.40E-10
4,4'-DDT	0.110	*	5.00E-08	*	0.149	*	3.40E-01	=	2.79E-10

Total Cancer Risk Inhalation of Nonvolatiles: 4.6E-09

Cumulative Cancer Risk: 1.15E-06

Note: Cs = Maximum Concentrations
Total Chlordane is the sum of the maximum concentrations of chlordane, gamma chlordane and alpha-chlordane
NA = not available

APPENDIX H

EDR Environmental Database Report

Brixton Capital Approx. 70 Acres
SWC Redlands Blvd./Eucalyptus Ave..
Moreno Valley, CA 92555

Inquiry Number: 5541495.2s
February 06, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

SWC REDLANDS BLVD./EUCALYPTUS AVE..
MORENO VALLEY, CA 92555

COORDINATES

Latitude (North):	33.9337210 - 33° 56' 1.39''
Longitude (West):	117.1610150 - 117° 9' 39.65''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	485118.7
UTM Y (Meters):	3754624.5
Elevation:	1732 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5641326 SUNNYMEAD, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140530, 20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
SWC REDLANDS BLVD./EUCALYPTUS AVE..
MORENO VALLEY, CA 92555

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1		28885 FIR ST	CHMIRS		TP
2	PAUL EPSETIN	28855 REDLANDS BLVD	HAZNET	Higher	1 ft.
3	EUCALYPTUS HIGH SCHO	REDLANDS BOULEVARD/E	ENVIROSTOR, SCH	Lower	89, 0.017, ESE
4	MORENO VALLEY HIGH S	REDLANDS BLVD. AND T	ENVIROSTOR, SCH	Higher	3955, 0.749, ENE
5	PROPOSED HIGH SCHOOL	IRONWOOD / QUINCY	ENVIROSTOR, SCH	Higher	3992, 0.756, NNW
6	PROPOSED BAY AVENUE	SW CORNER BAY AVENUE	ENVIROSTOR, SCH	Lower	4296, 0.814, South

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
28885 FIR ST 28885 FIR ST MORENO VALLEY, CA	CHMIRS OES Incident Number: 8-4653	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators

RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

LUST ---------- Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing

INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---- Historical Calsites Database
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
CERS HAZ WASTE ---- CERS HAZ WASTE
US CDL ---- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CERS TANKS ---- California Environmental Reporting System (CERS) Tanks
CA FID UST ---- Facility Inventory Database

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System

COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
WIP	Well Investigation Program Case List
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/29/2018 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MORENO VALLEY HIGH S Facility Id: 70000093 Status: No Action Required	***REDLANDS BLVD. AND T***	***ENE 1/2 - 1 (0.749 mi.)***	***4***	***12***
PROPOSED HIGH SCHOOL Facility Id: 60000931 Status: No Further Action	***IRONWOOD / QUINCY***	***NNW 1/2 - 1 (0.756 mi.)***	***5***	***15***

Lower Elevation	Address	Direction / Distance	Map ID	Page
EUCALYPTUS HIGH SCHO	***REDLANDS BOULEVARD/E***	***ESE 0 - 1/8 (0.017 mi.)***	***3***	***9***

Facility Id: 60000326
Status: No Further Action

PROPOSED BAY AVENUE	***SW CORNER BAY AVENUE***	***S 1/2 - 1 (0.814 mi.)***	***6***	***17***

Facility Id: 60000523
Status: No Further Action

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 10/29/2018 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
EUCALYPTUS HIGH SCHO	***REDLANDS BOULEVARD/E***	***ESE 0 - 1/8 (0.017 mi.)***	***3***	***9***

Facility Id: 60000326
Status: No Further Action

Other Ascertainable Records

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 HAZNET site within approximately 0.001 miles of the target property.

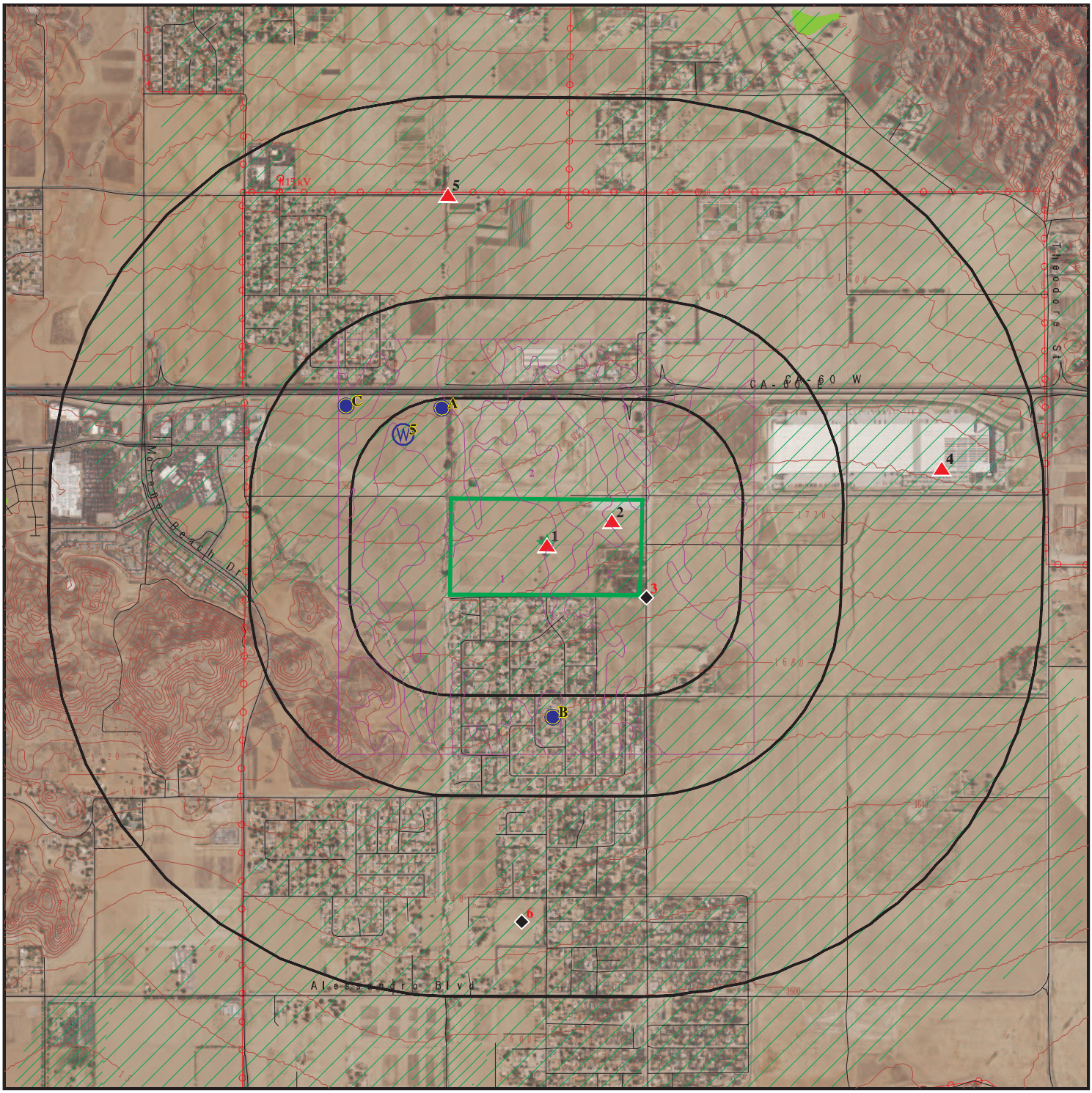
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PAUL EPSETIN	28855 REDLANDS BLVD	0 - 1/8 (0.000 mi.)	2	9

GEPAID: CAC002615326

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 0 records
There were no unmapped sites in this report.

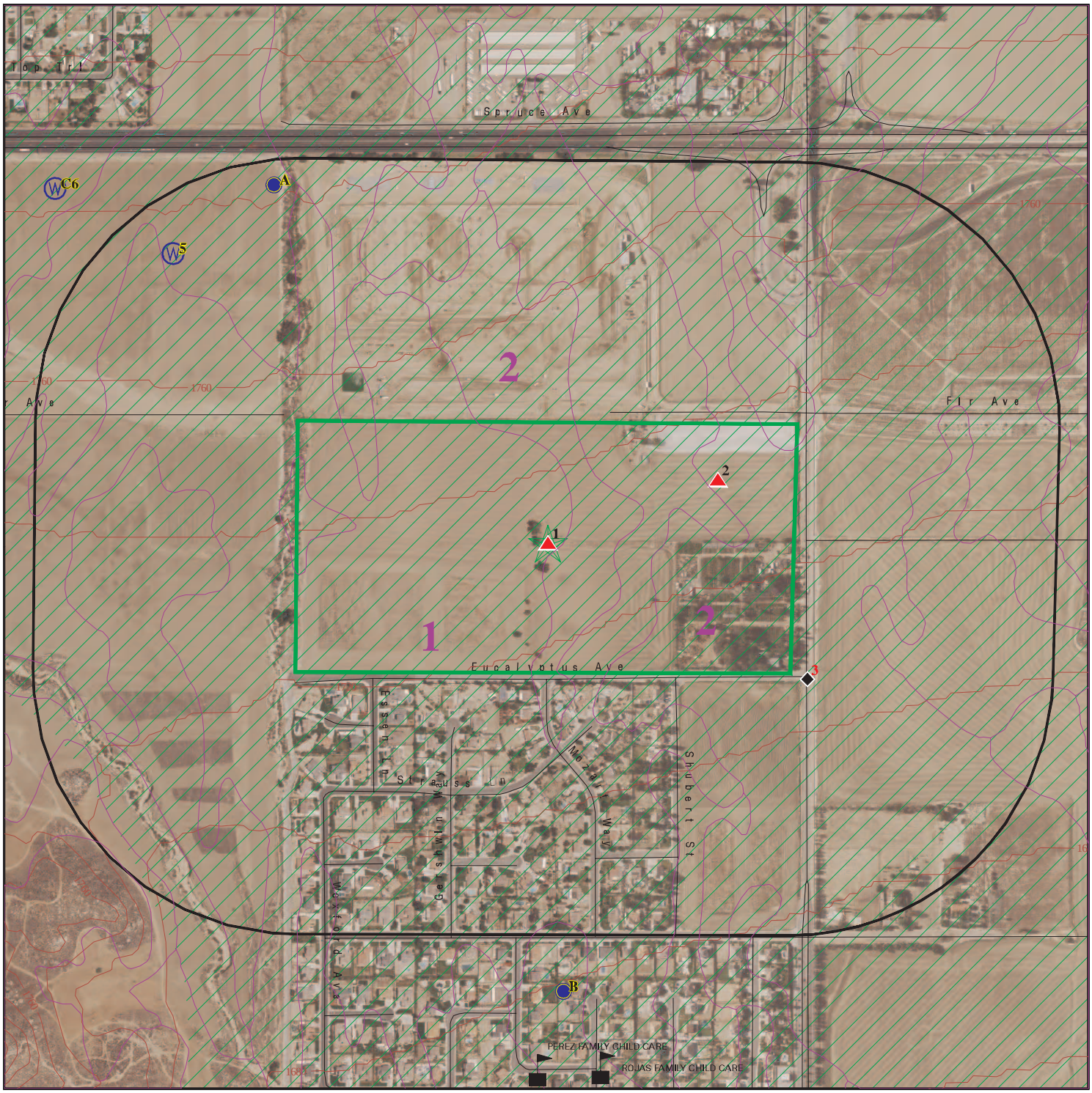
OVERVIEW MAP - 5541495.2S



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Brixton Capital Approx. 70 Acres	CLIENT:	LOR Geotechnical Group, Inc.
ADDRESS:	SWC Redlands Blvd./Eucalyptus Ave.. Moreno Valley CA 92555	CONTACT:	Mat Hunt
		INQUIRY #:	5541495.2s
LAT/LONG:	33.933721 / 117.161015	DATE:	February 06, 2019 3:43 pm

DETAIL MAP - 5541495.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

100-year flood zone

500-year flood zone

Areas of Concern

0 1/8 1/4 1/2 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Brixton Capital Approx. 70 Acres	CLIENT:	LOR Geotechnical Group, Inc.
ADDRESS:	SWC Redlands Blvd./Eucalyptus Ave.. Moreno Valley CA 92555	CONTACT:	Mat Hunt
		INQUIRY #:	5541495.2s
LAT/LONG:	33.933721 / 117.161015	DATE:	February 06, 2019 3:48 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	0	0	3	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	0	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001	1	0	NR	NR	NR	NR	1
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		1	NR	NR	NR	NR	1
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		1	3	0	0	3	0	7

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 **CHMIRS** **S105653984**
Target Property **28885 FIR ST**
MORENO VALLEY, CA
N/A

Actual: 1732 ft.

CHMIRS:

OES Incident Number:	8-4653
OES notification:	10/14/1998
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	DTSC/S.O.
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1998
Agency:	Riverside Co Fire
Incident Date:	10/12/199812:00:00 AM
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Residence
E Date:	Not reported
Substance:	Drug Lab Waste
Gallons:	10
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0

(Continued) **S105653984**

Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Drug lab bust by the S.O.

---

2 **PAUL EPSETIN** **HAZNET** **S112960592**
28855 REDLANDS BLVD **N/A**
< 1/8 **MORENO VALLEY, CA 92555**
1 ft.

Relative: **Higher**
Actual: **1733 ft.**

HAZNET:

envid:	S112960592
Year:	2007
GEPAID:	CAC002615326
Contact:	PAUL EPSETIN
Telephone:	9516871012
Mailing Name:	Not reported
Mailing Address:	11750 CARLY CT
Mailing City,St,Zip:	RIVERSIDE, CA 925035984
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

---

3 **EUCALYPTUS HIGH SCHOOL #5 SITE** **ENVIROSTOR** **S107770253**
ESE **REDLANDS BOULEVARD/EUCALYPTUS AVENUE** **SCH** **N/A**
< 1/8 **MORENO VALLEY, CA 92553**
0.017 mi.
89 ft.

Relative: **Lower**
Actual: **1707 ft.**

ENVIROSTOR:

Facility ID:	60000326
Status:	No Further Action
Status Date:	02/06/2007
Site Code:	404711
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	70
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported

EUCALYPTUS HIGH SCHOOL #5 SITE (Continued) **S107770253**

Supervisor: Yolanda Garza
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 75
Senate: 28
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.5603
Longitude: -117.0939
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
Potential COC: Arsenic Chlordane DDD DDE DDT Endrin Lead Mercury (elemental Silver Toxaphene Aldrin Antimony and compounds Barium and compounds Beryllium and compounds Cadmium and compounds Chromium III Chromium VI Cobalt Copper and compounds Dieldrin Endosulfan Heptachlor Lead, Organic (tetraethyl lead Methoxychlor Molybdenum Nickel Selenium Thallium and compounds Vanadium and compounds Zinc
Confirmed COC: 30515-NO 30542-NO 30021-NO 30023-NO 30043-NO 30058-NO 30067-NO 30080-NO 30108-NO 30152-NO 30153-NO 30154-NO 30156-NO 30207-NO 30261-NO 30308-NO 30343-NO 30367-NO 30402-NO 30407-NO 30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 30013-NO 30014-NO No Contaminants found 30587-NO 30594-NO
Potential Description: SOIL
Alias Name: 404711
Alias Type: Project Code (Site Code)
Alias Name: 60000326
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/15/2006
Comments: PEA Tech Memo approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/05/2007
Comments: Revised Draft PEA approved 02/05/07.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/15/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/06/2007
Comments: CRU memo prepared and submitted to Cost Recovery Unit 02/06/07.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

EUCALYPTUS HIGH SCHOOL #5 SITE (Continued) **S107770253**

Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Facility ID:	60000326
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	70
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404711
Assembly:	75
Senate:	28
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	02/06/2007
Restricted Use:	NO
Funding:	School District
Latitude:	33.5603
Longitude:	-117.0939
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
Potential COC:	Arsenic, Arsenic, Chlordane, DDD, DDE, DDT, Endrin, Lead, Mercury (elemental, Silver, Toxaphene, Aldrin, Antimony and compounds, Barium and compounds, Beryllium and compounds, Cadmium and compounds, Chromium III, Chromium VI, Cobalt, Copper and compounds, Dieldrin, Endosulfan, Heptachlor, Lead, Organic (tetraethyl lead, Methoxychlor, Molybdenum, Nickel, Selenium, Thallium and compounds, Vanadium and compounds, Zinc
Confirmed COC:	30515-NO, 30542-NO, 30021-NO, 30023-NO, 30043-NO, 30058-NO, 30067-NO, 30080-NO, 30108-NO, 30152-NO, 30153-NO, 30154-NO, 30156-NO, 30207-NO, 30261-NO, 30308-NO, 30343-NO, 30367-NO, 30402-NO, 30407-NO, 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30013-NO, 30014-NO, No Contaminants found, 30587-NO, 30594-NO
Potential Description:	SOIL
Alias Name:	404711
Alias Type:	Project Code (Site Code)
Alias Name:	60000326
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	08/15/2006
Comments:	PEA Tech Memo approved.

EUCALYPTUS HIGH SCHOOL #5 SITE (Continued) **S107770253**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/05/2007
Comments:	Revised Draft PEA approved 02/05/07.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/15/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/06/2007
Comments:	CRU memo prepared and submitted to Cost Recovery Unit 02/06/07.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

4
ENE
1/2-1
0.749 mi.
3955 ft.

MORENO VALLEY HIGH SCHOOL SITE #5 **ENVIROSTOR** **S118757372**
REDLANDS BLVD. AND THODORE STREET **SCH** **N/A**
MORENO VALLEY, CA 92555

Relative:
Higher

Actual:
1745 ft.

ENVIROSTOR:

Facility ID:	70000093
Status:	No Action Required
Status Date:	01/19/2006
Site Code:	404664
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	90
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	61
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.9365
Longitude:	-117.1439
APN:	477-090-004, 477-090-006, 477-090-008, 477-090-009, 477-090-010, 477-090-011, 477-090-012, 477-100-011, 477-100-012, 477-100-013

MORENO VALLEY HIGH SCHOOL SITE #5 (Continued) **S118757372**

Past Use: NONE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: 31000-NO
Potential Description: NMA
Alias Name: 477-090-004
Alias Type: APN
Alias Name: 477-090-006
Alias Type: APN
Alias Name: 477-090-008
Alias Type: APN
Alias Name: 477-090-009
Alias Type: APN
Alias Name: 477-090-010
Alias Type: APN
Alias Name: 477-090-011
Alias Type: APN
Alias Name: 477-090-012
Alias Type: APN
Alias Name: 477-100-011
Alias Type: APN
Alias Name: 477-100-012
Alias Type: APN
Alias Name: 477-100-013
Alias Type: APN
Alias Name: 404664
Alias Type: Project Code (Site Code)
Alias Name: 70000093
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 12/13/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 12/09/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 70000093
Site Type: School Investigation
Site Type Detail: School

MORENO VALLEY HIGH SCHOOL SITE #5 (Continued) **S118757372**

Site Mgmt. Req.:	NONE SPECIFIED
Acres:	90
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404664
Assembly:	61
Senate:	31
Special Program Status:	Not reported
Status:	No Action Required
Status Date:	01/19/2006
Restricted Use:	NO
Funding:	School District
Latitude:	33.9365
Longitude:	-117.1439
APN:	477-090-004, 477-090-006, 477-090-008, 477-090-009, 477-090-010, 477-090-011, 477-090-012, 477-100-011, 477-100-012, 477-100-013
Past Use:	NONE
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	31000-NO
Potential Description:	NMA
Alias Name:	477-090-004
Alias Type:	APN
Alias Name:	477-090-006
Alias Type:	APN
Alias Name:	477-090-008
Alias Type:	APN
Alias Name:	477-090-009
Alias Type:	APN
Alias Name:	477-090-010
Alias Type:	APN
Alias Name:	477-090-011
Alias Type:	APN
Alias Name:	477-090-012
Alias Type:	APN
Alias Name:	477-100-011
Alias Type:	APN
Alias Name:	477-100-012
Alias Type:	APN
Alias Name:	477-100-013
Alias Type:	APN
Alias Name:	404664
Alias Type:	Project Code (Site Code)
Alias Name:	70000093
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	12/13/2005
Comments:	Not reported
Completed Area Name:	PROJECT WIDE

MORENO VALLEY HIGH SCHOOL SITE #5 (Continued) **S118757372**

Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 12/09/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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5 **PROPOSED HIGH SCHOOL** **ENVIROSTOR** **S109149584**
NNW **IRONWOOD / QUINCY** **SCH** **N/A**
1/2-1 **MORENO VALLEY, CA 92555**
0.756 mi.
3992 ft.

Relative:
Higher

Actual:
1850 ft.

ENVIROSTOR:
Facility ID: 60000931
Status: No Further Action
Status Date: 10/23/2008
Site Code: 404806
Site Type: School Investigation
Site Type Detailed: School
Acres: 56
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.94639
Longitude: -117.1653
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic Chlordane DDD DDE DDT Endrin Toxaphene
Confirmed COC: 30001-NO 30004-NO 30023-NO 30006-NO 30007-NO 30008-NO 30010-NO
Potential Description: SOIL
Alias Name: 404806
Alias Type: Project Code (Site Code)
Alias Name: 60000931
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/13/2008

PROPOSED HIGH SCHOOL (Continued) **S109149584**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/21/2008
Comments: Signed agreement sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/14/2008
Comments: DTSC concurs with Scoping document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/23/2008
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 60000931
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 56
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404806
Assembly: 61
Senate: 31
Special Program Status: Not reported
Status: No Further Action
Status Date: 10/23/2008
Restricted Use: NO
Funding: School District
Latitude: 33.94639
Longitude: -117.1653
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic, Chlordane, DDD, DDE, DDT, Endrin, Toxaphene

PROPOSED HIGH SCHOOL (Continued) **S109149584**

Confirmed COC: 30001-NO, 30004-NO, 30023-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO
Potential Description: SOIL
Alias Name: 404806
Alias Type: Project Code (Site Code)
Alias Name: 60000931
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/13/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/21/2008
Comments: Signed agreement sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/14/2008
Comments: DTSC concurs with Scoping document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/23/2008
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

6
South
1/2-1
0.814 mi.
4296 ft.

PROPOSED BAY AVENUE - WILMOT STREET SCHOOL SITE **ENVIROSTOR** **S108407567**
SW CORNER BAY AVENUE AND WILMOT STREET **SCH** **N/A**
MORENO VALLEY, CA 92553

Relative:
Lower

Actual:
1629 ft.

ENVIROSTOR:
Facility ID: 60000523
Status: No Further Action
Status Date: 07/27/2007
Site Code: 404733
Site Type: School Investigation
Site Type Detailed: School
Acres: 9.1
NPL: NO
Regulatory Agencies: SMBRP

PROPOSED BAY AVENUE - WILMOT STREET SCHOOL SITE (Continued) **S108407567**

Lead Agency: SMBRP
Program Manager: Aslam Shareef
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.92011
Longitude: -117.1621
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - LIVESTOCK, AGRICULTURAL - ORCHARD
Potential COC: Chlordane DDD DDE DDT
Confirmed COC: 30004-NO 30006-NO 30007-NO 30008-NO
Potential Description: SOIL
Alias Name: 404733
Alias Type: Project Code (Site Code)
Alias Name: 60000523
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/16/2007
Comments: TM approved originally approved 03/16/2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/25/2007
Comments: Approval of PEA Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 01/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/09/2007
Comments: CRU Memo

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

PROPOSED BAY AVENUE - WILMOT STREET SCHOOL SITE (Continued) **S108407567**

SCH:

Facility ID:	60000523
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	9.1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Aslam Shareef
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404733
Assembly:	61
Senate:	31
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	07/27/2007
Restricted Use:	NO
Funding:	School District
Latitude:	33.92011
Longitude:	-117.1621
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - LIVESTOCK, AGRICULTURAL - ORCHARD
Potential COC:	Chlordane, DDD, DDE, DDT
Confirmed COC:	30004-NO, 30006-NO, 30007-NO, 30008-NO
Potential Description:	SOIL
Alias Name:	404733
Alias Type:	Project Code (Site Code)
Alias Name:	60000523
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	03/16/2007
Comments:	TM approved originally approved 03/16/2007.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	07/25/2007
Comments:	Approval of PEA Report
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	01/30/2007
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/09/2007

PROPOSED BAY AVENUE - WILMOT STREET SCHOOL SITE (Continued) **S108407567**

Comments:	CRU Memo
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 0 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

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.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates 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 the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 43

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 44

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 44

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/12/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 29

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 44

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 10/15/2018
Number of Days to Update: 20

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/18/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 09/28/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/07/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 44

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site 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. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

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.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The 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 deed restrictions that are active. Some sites have multiple deed restrictions. The 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.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 51

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 08/31/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/05/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/26/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 36
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018
Date Data Arrived at EDR: 10/11/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 57
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/03/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 56

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/21/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by 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 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.

Date of Government Version: 09/10/2018
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 10/16/2018
Number of Days to Update: 21
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 08/28/2018
Date Data Arrived at EDR: 08/30/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 63
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 7
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 11/13/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 42

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 27

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/30/2018
Date Data Arrived at EDR: 09/27/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 35

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/19/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 53

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/07/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/19/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 53

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/19/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/09/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/09/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/12/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 29

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/19/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/19/2018
Number of Days to Update: 29

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 12/04/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/24/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/05/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 22

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/05/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 23

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 07/24/2018
Date Made Active in Reports: 08/20/2018
Number of Days to Update: 27

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 10/31/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 12/12/2018
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 05/23/2018
Date Data Arrived at EDR: 05/24/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 50

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/26/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 46

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 08/16/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 8

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 10/18/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 27

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 20

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/02/2018
Date Data Arrived at EDR: 11/07/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/21/2018
Date Data Arrived at EDR: 11/27/2018
Date Made Active in Reports: 12/12/2018
Number of Days to Update: 15

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 11/08/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 6

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 10/15/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 22

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/20/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 35

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/15/2018
Date Data Arrived at EDR: 10/16/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 31

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 05/01/2018
Date Made Active in Reports: 05/14/2018
Number of Days to Update: 13

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 10/16/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 31

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/26/2018
Date Data Arrived at EDR: 11/27/2018
Date Made Active in Reports: 12/12/2018
Number of Days to Update: 15

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/29/2018
Date Data Arrived at EDR: 08/31/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 19

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 01/09/2019
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 12/07/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/24/2019
Number of Days to Update: 44

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 12/06/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 11/01/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 15

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/27/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/21/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 11/28/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/06/2018
Date Data Arrived at EDR: 11/08/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 6

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 29

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 29

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/04/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 07/19/2018
Date Data Arrived at EDR: 07/25/2018
Date Made Active in Reports: 09/05/2018
Number of Days to Update: 42

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 10/16/2018
Number of Days to Update: 4

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 11/05/2018
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/03/2018
Date Data Arrived at EDR: 10/02/2018
Date Made Active in Reports: 11/01/2018
Number of Days to Update: 30

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/23/2018
Date Data Arrived at EDR: 10/02/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 31

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/28/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 27

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/28/2018
Date Data Arrived at EDR: 11/30/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 42

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO. SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/14/2018
Date Data Arrived at EDR: 11/15/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 28

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/16/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/21/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 10

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 10/25/2018
Number of Days to Update: 21

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/25/2018
Number of Days to Update: 35

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 36

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/07/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 36

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 35

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/26/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/07/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 7

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/12/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/04/2018
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/20/2018
Number of Days to Update: 50

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/30/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/07/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BRIXTON CAPITAL APPROX. 70 ACRES
SWC REDLANDS BLVD./EUCALYPTUS AVE..
MORENO VALLEY, CA 92555

TARGET PROPERTY COORDINATES

Latitude (North):	33.933721 - 33° 56' 1.40''
Longitude (West):	117.161015 - 117° 9' 39.65''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	485118.7
UTM Y (Meters):	3754624.5
Elevation:	1732 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641326 SUNNYMEAD, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

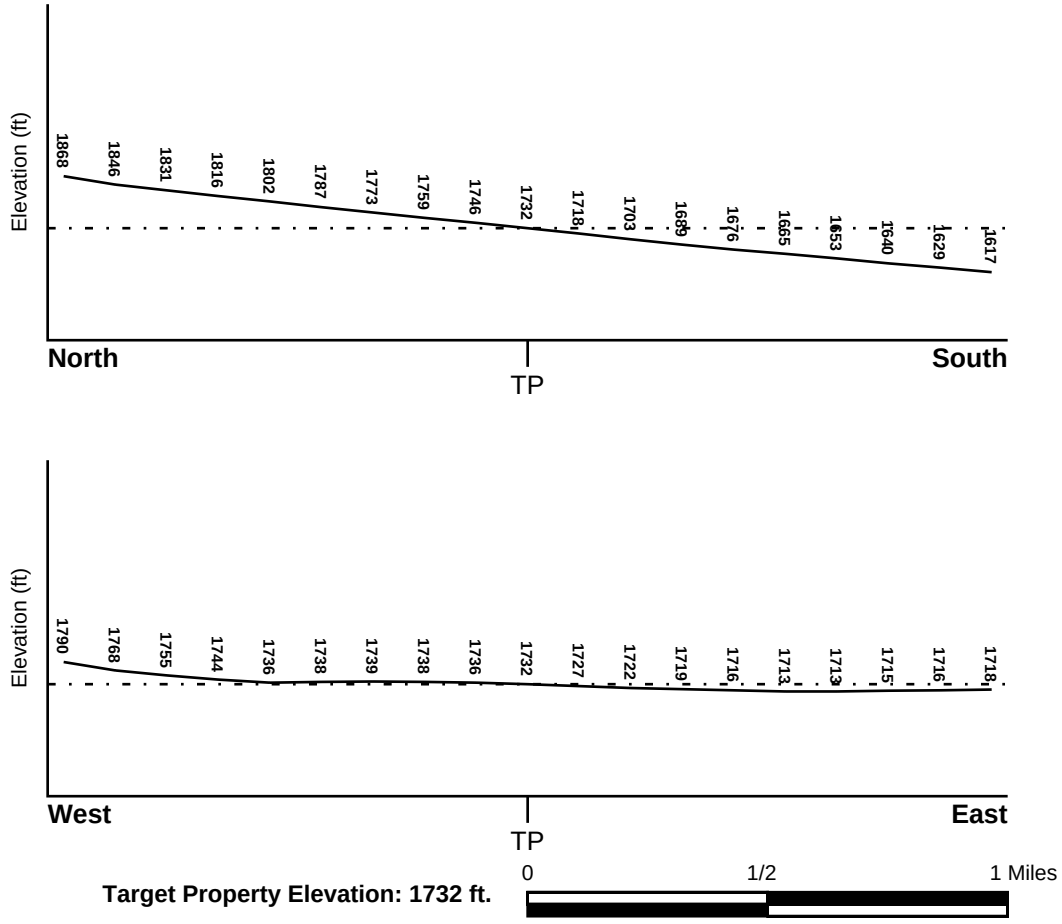
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C0770G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C0760G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

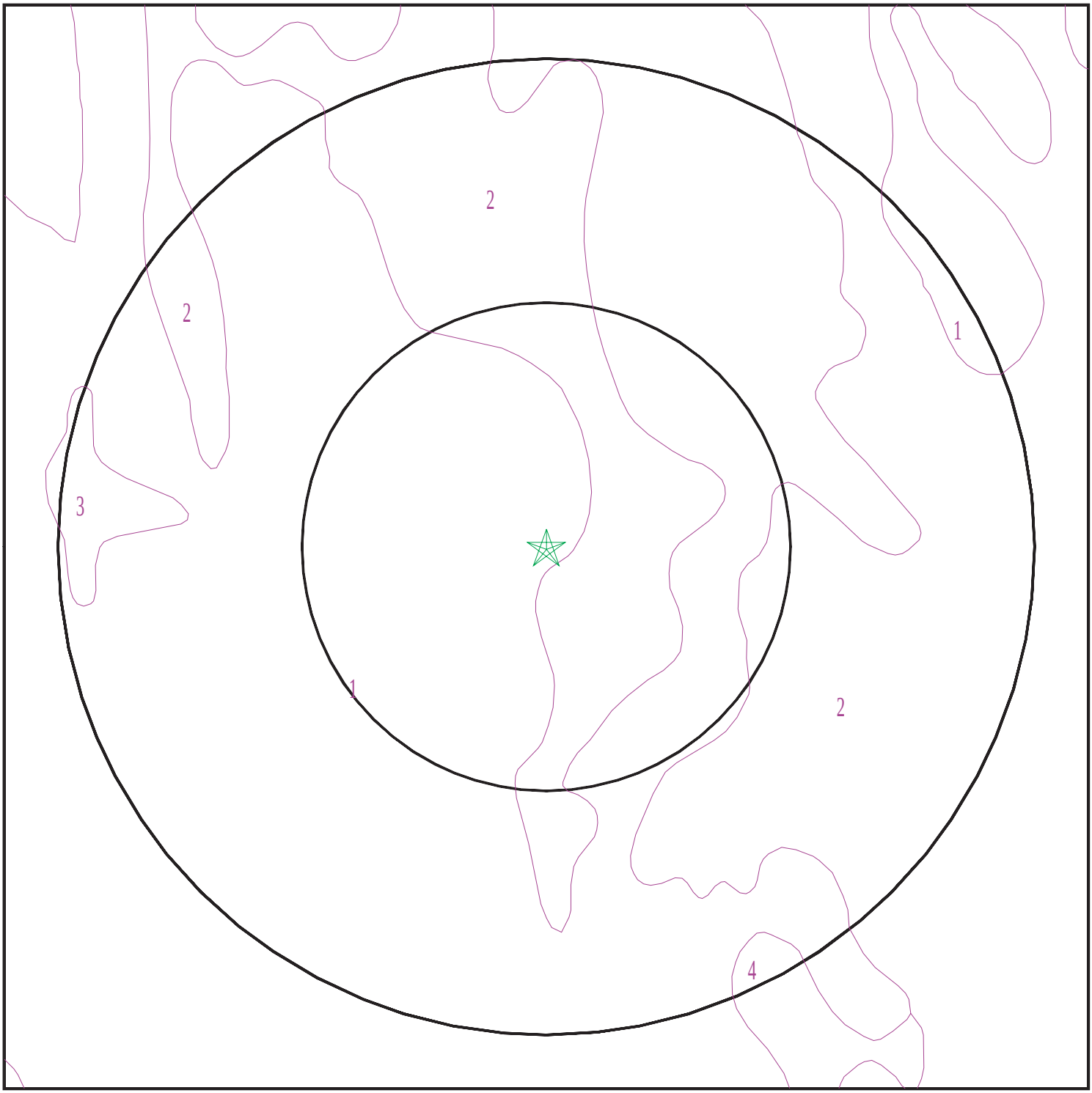
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5541495.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Brixton Capital Approx. 70 Acres	CLIENT:	LOR Geotechnical Group, Inc.
ADDRESS:	SWC Redlands Blvd./Eucalyptus Ave.. Moreno Valley CA 92555	CONTACT:	Mat Hunt
		INQUIRY #:	5541495.2s
LAT/LONG:	33.933721 / 117.161015	DATE:	February 06, 2019 3:49 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: SAN EMIGDIO

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
3	40 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: SAN EMIGDIO

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
3	40 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: METZ

Soil Surface Texture: loamy fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	29 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
2	29 inches	59 inches	stratified sand to silt loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: SAN EMIGDIO

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
3	40 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	USGS40000139167	1/4 - 1/2 Mile NW
B3	USGS40000139084	1/4 - 1/2 Mile South
C6	USGS40000139168	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

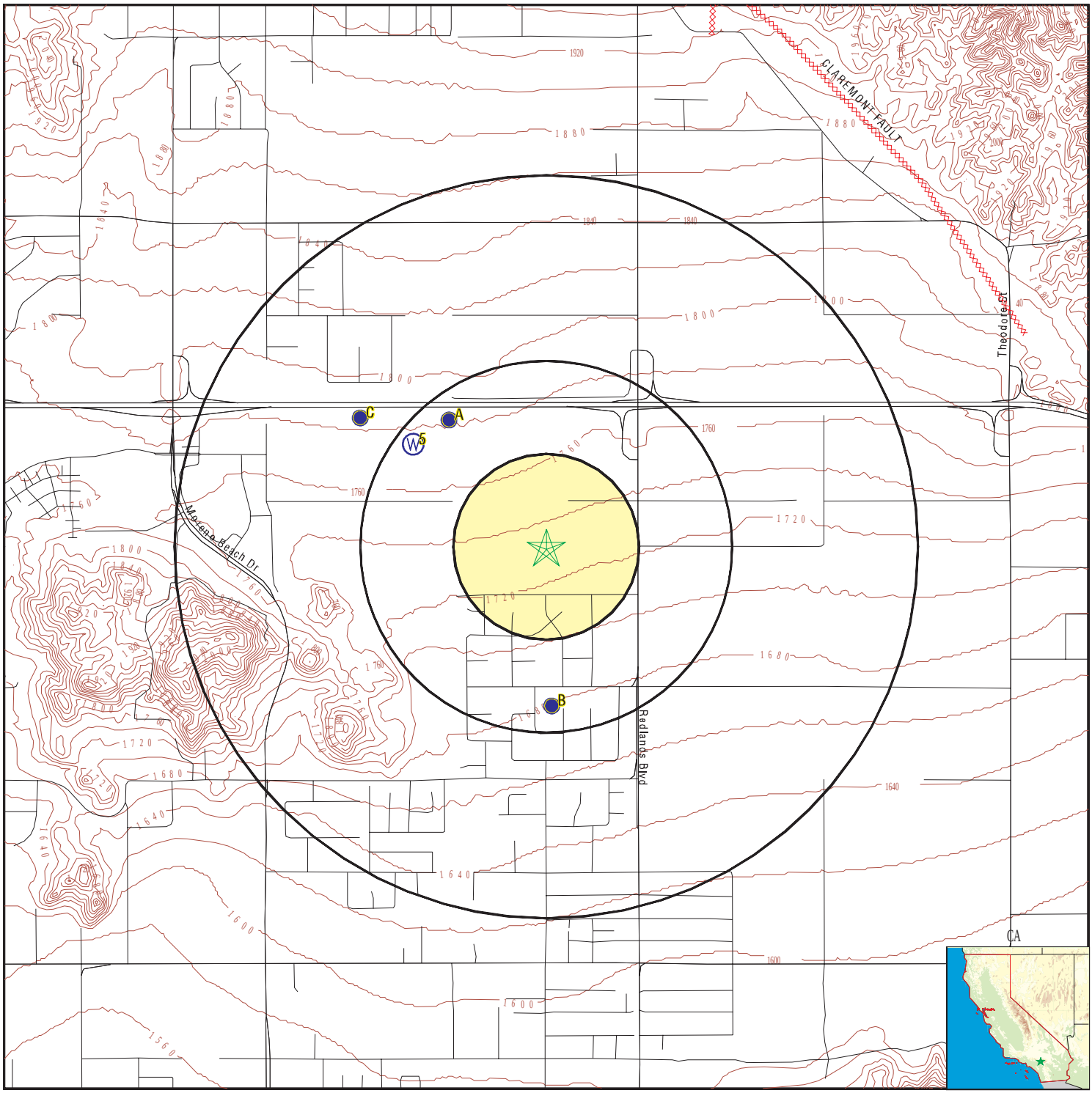
No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B2	CADW60000008723	1/4 - 1/2 Mile South
A4	CADW60000010569	1/4 - 1/2 Mile NW
5	CADW60000010568	1/4 - 1/2 Mile NW
C7	CADW60000010567	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 5541495.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Brixton Capital Approx. 70 Acres	CLIENT:	LOR Geotechnical Group, Inc.
ADDRESS:	SWC Redlands Blvd./Eucalyptus Ave.. Moreno Valley CA 92555	CONTACT:	Mat Hunt
		INQUIRY #:	5541495.2s
LAT/LONG:	33.933721 / 117.161015	DATE:	February 06, 2019 3:48 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
NW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000139167**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S003W02L002S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1932	Well Depth:	1000
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

B2
South
1/4 - 1/2 Mile
Lower

CA WELLS **CADW60000008723**

Objectid:	8723	Latitude:	33.9275
Longitude:	-117.1612	Site code:	339275N1171612W001
State well numbe:	10N03W26K001S	Local well name:	''
Well use id:	6	Well use descrip:	Unknown
County id:	36	County name:	San Bernardino
Basin code:	'8-5'	Basin desc:	San Jacinto
Dwr region id:	80238	Dwr region:	Southern Region Office
Site id:	CADW60000008723		

B3
South
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000139084**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010N003W26K001S	Type:	Well
Description:	COMPUTER GENERATED LAT/LONG. +/- 500FT		
HUC:	Not Reported	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	California Coastal Basin aquifers
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1944	Well Depth:	185
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1959-02-06
Feet below surface:	104.20	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A4
NW
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000010569**

Objectid:	10569	Latitude:	33.938731
Longitude:	-117.16554	Site code:	339387N1171655W001
State well numbe:	Not Reported	Local well name:	'EMWD12047'
Well use id:	3	Well use descrip:	Irrigation
County id:	33	County name:	Riverside
Basin code:	'8-5'	Basin desc:	San Jacinto
Dwr region id:	80238	Dwr region:	Southern Region Office
Site id:	CADW60000010569		

5
NW
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000010568**

Objectid:	10568	Latitude:	33.937727
Longitude:	-117.167241	Site code:	339377N1171672W001
State well numbe:	Not Reported	Local well name:	'EMWD14352'
Well use id:	1	Well use descrip:	Observation
County id:	33	County name:	Riverside
Basin code:	'8-5'	Basin desc:	San Jacinto
Dwr region id:	80238	Dwr region:	Southern Region Office
Site id:	CADW60000010568		

C6
NW
1/2 - 1 Mile
Higher

FED USGS **USGS40000139168**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	003S003W02L001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

C7
NW
1/2 - 1 Mile
Higher

CA WELLS **CADW60000010567**

Objectid:	10567	Latitude:	33.938895
Longitude:	-117.170247	Site code:	339389N1171702W001
State well numbe:	Not Reported	Local well name:	'EMWD12046'
Well use id:	1	Well use descrip:	Observation
County id:	33	County name:	Riverside
Basin code:	'8-5'	Basin desc:	San Jacinto

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dwr region id:	80238	Dwr region:	Southern Region Office
Site id:	CADW60000010567		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92555	4	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

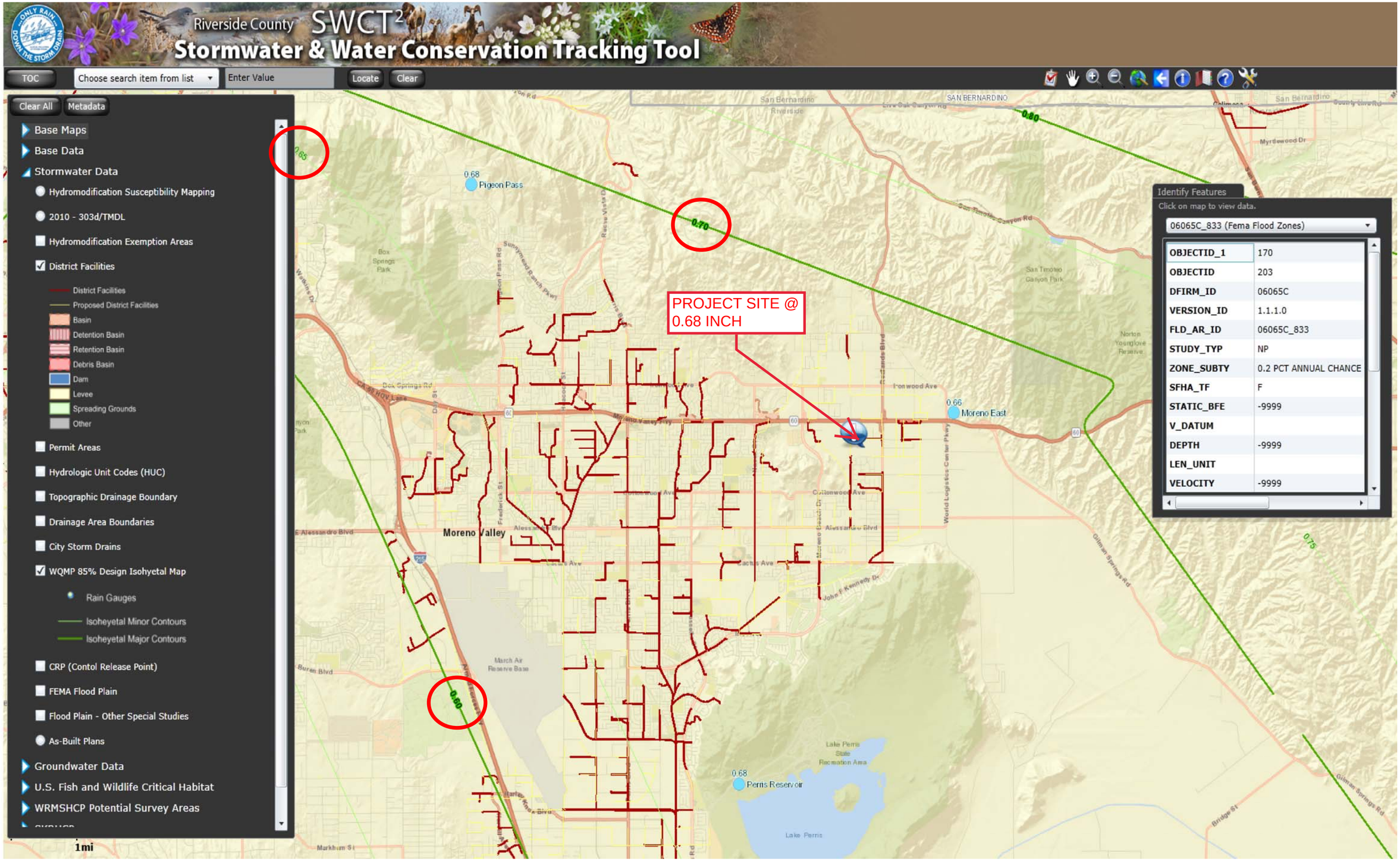
STREET AND ADDRESS INFORMATION

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis (NOT APPLICABLE)

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation


Riverside County SWCT2
Stormwater & Water Conservation Tracking Tool
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
2010 - 303d/TMDL
Hydromodification Exemption Areas
District Facilities
District Facilities
Proposed District Facilities
Basin
Detention Basin
Retention Basin
Debris Basin
Dam
Levee
Spreading Grounds
Other
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
Rain Gauges
Isoheyetal Minor Contours
Isoheyetal Major Contours
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
As-Built Plans
Groundwater Data
U.S. Fish and Wildlife Critical Habitat
WRMSHCP Potential Survey Areas
1mi
0.65
0.68
Pigeon Pass
0.70
0.80
PROJECT SITE @
0.68 INCH
0.66
Moreno East
Moreno Valley
0.60
0.68
Perris Reservoir
0.75
Identify Features
Click on map to view data.
06065C_833 (Fema Flood Zones)
OBJECTID_1 170
OBJECTID 203
DFIRM_ID 06065C
VERSION_ID 1.1.1.0
FLD_AR_ID 06065C_833
STUDY_TYP NP
ZONE_SUBTY 0.2 PCT ANNUAL CHANCE
SFHA_TF F
STATIC_BFE -9999
V_DATUM
DEPTH -9999
LEN_UNIT
VELOCITY -9999

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	Thienes Engineering, Inc.	Date	2/14/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA A - BIO "A"

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} = 0.68 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)*
A1	*285318*	*Roofs*	*1*	*0.89*	*254503.7*			
A2	*13068*	*Ornamental Landscaping*	*0.1*	*0.11*	*1443.5*			
	298386	***Total***			**255947.2**	**0.68**	***14503.7***	***23,436***

Notes:

Total tributary area = 6.85 acres

Bioretention Facility - Design Procedure	BMP ID: BIO "A"	Legend:	Required Entries / Calculated Cells

Company Name:	Thienes Engineering Inc.	Date:	2/14/2020
Designed by:	Luis Prado	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	6.85	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	14,504	ft^3

Type of Bioretention Facility Design

- ○ Side slopes required (parallel to parking spaces or adjacent to walkways)
- ◉ No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	3.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	45.0	ft
Total Effective Depth, d_E			
$d_E = [(0.3) \times d_S + (0.4) \times 1] + 0.5$	d_E =	1.80	ft
Minimum Surface Area, A_m			
$A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	8,058	ft^2
Proposed Surface Area	A=	13,020	ft^2
Minimum Required Length of Bioretention Facility, L	L =	179.1	ft

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	3	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)			%
6" Check Dam Spacing			feet
Describe Vegetation:			

Notes: Volume provided = Proposed Surface Area x Effective Depth = 13,020 SF x 1.8 FT = 23,436 CF

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	Thienes Engineering, Inc.	Date	3/16/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA B - BIO "B"

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}= 0.68 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)*
B1	*925650*	*Roofs*	*1*	*0.89*	*825679.8*			
B2	*30492*	*Ornamental Landscaping*	*0.1*	*0.11*	*3368.1*			
	956142		***Total***		**829047.9**	**0.68**	***46979.4***	***52,627***

Notes:

Total tributary area = 21.95 acres

Bioretention Facility - Design Procedure	BMP ID: BIO "B"	Legend:	Required Entries / Calculated Cells

Company Name:	Thienes Engineering Inc.	Date:	3/16/2020
Designed by:	Luis Prado	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	21.95	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	46,979	ft^3

Type of Bioretention Facility Design

- ○ Side slopes required (parallel to parking spaces or adjacent to walkways)
- ◉ No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	3.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	45.0	ft
Total Effective Depth, d_E			
$d_E = [(0.3) \times d_S + (0.4) \times 1] + 0.5$	d_E =	1.80	ft
Minimum Surface Area, A_m			
$A_M\,(ft^2) = \frac{V_{BMP}\,(ft^3)}{d_E\,(ft)}$	A_M =	26,100	ft^2
Proposed Surface Area	A=	29,237	ft^2
Minimum Required Length of Bioretention Facility, L	L =	580.0	ft

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	3	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)			%
6" Check Dam Spacing			feet
Describe Vegetation:			

Notes: Volume provided = Proposed Surface Area x Effective Depth =29,237 SF x 1.8 FT = 52,627 CF

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	Thienes Engineering, Inc.	Date	1/31/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA C - BIO "C"

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}= 0.68 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)*
C1	*914760*	*Roofs*	*1*	*0.89*	*815965.9*			
C2	*26136*	*Ornamental Landscaping*	*0.1*	*0.11*	*2886.9*			
	940896		*Total*		*818852.8*	*0.68*	*46401.7*	*48,028*

Notes:

Total tributary area = 21.60 acres

Bioretention Facility - Design Procedure	BMP ID: BIO "C"	Legend:	Required Entries / Calculated Cells

Company Name:	Thienes Engineering Inc.	Date:	1/31/2020
Designed by:	Luis Prado	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	21.6	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	46,402	ft^3

Type of Bioretention Facility Design

- ○ Side slopes required (parallel to parking spaces or adjacent to walkways)
- ◉ No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	3.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	55.0	ft
Total Effective Depth, d_E			
$d_E = [(0.3) \times d_S + (0.4) \times 1] + 0.5$	d_E =	1.80	ft
Minimum Surface Area, A_m			
$A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	25,779	ft^2
Proposed Surface Area	A=	26,682	ft^2
Minimum Required Length of Bioretention Facility, L	L =	468.7	ft

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	3	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)			%
6" Check Dam Spacing			feet
Describe Vegetation:			

Notes: Volume provided = Proposed Surface Area x Effective Depth = 26,682 SF x 1.8 FT = 48,028 CF

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: Thienes Engineering, Inc. — Date: 1/31/2020

Designed by: Luis Prado — Case No:

Company Project Number/Name: 3828 - Eucalyptus Avenue & Redlands, Moreno Valley

BMP Identification

BMP NAME / ID: DMA D - BIO "D"

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}= 0.68 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 Impervious 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)*
D1	*749232*	*Roofs*	*1*	*0.89*	*668314.9*			
D2	*21780*	*Ornamental Landscaping*	*0.1*	*0.11*	*2405.8*			
	771012	**Total**			**670720.7**	**0.68**	**38007.5**	**38,142**

Notes:
Total tributary area = 17.70 acres

Bioretention Facility - Design Procedure	BMP ID: BIO "D"	Legend:	Required Entries / Calculated Cells

Company Name:	Thienes Engineering Inc.	Date:	1/31/2020
Designed by:	Luis Prado	County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	17.7	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	38,008	ft^3

Type of Bioretention Facility Design

- ○ Side slopes required (parallel to parking spaces or adjacent to walkways)
- ◉ No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	3.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	45.0	ft
Total Effective Depth, d_E			
$d_E = [(0.3) \times d_S + (0.4) \times 1] + 0.5$	d_E =	1.80	ft
Minimum Surface Area, A_m			
$A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	21,116	ft^2
Proposed Surface Area	A=	21,190	ft^2
Minimum Required Length of Bioretention Facility, L	L =	469.2	ft

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	3	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)			%
6" Check Dam Spacing			feet
Describe Vegetation:			

Notes: Volume provided = Proposed Surface Area x Effective Depth = 21,190 SF x 1.8 FT = 38,142 CF

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	Thienes Engineering, Inc.	Date	1/31/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA G - Eucalyptus BMP - BIO "G"

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}= 0.68 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)*
G1	*84506.4*	*Roofs*	*1*	*0.89*	*75379.7*			
G2	*8712*	*Ornamental Landscaping*	*0.1*	*0.11*	*962.3*			
	93218.4	***Total***			**76342**	**0.68**	***4326***	***4,470***

Notes:

Total tributary area = 2.14 acres

Street BMP - Bioretention Calculations (option S/W easement)

Avg. Soil Depth* =	15.5	inches	= 10.5 inches + 5 inches
Avg. Soil Depth* =	1.29	ft	where 5 inches is average depth (D-min + D-max) ÷ 2
Soil Porosity =	0.30		D-min = 0 and D-max = 10 inches
Gravel Depth =	1.00	ft	
Gravel Porosity =	0.40		
Avg. Ponding Depth =	5.00	inches	5 inches is average depth (D-min + D-max) ÷ 2
Avg. Ponding Depth =	0.42	ft	where D-min = 0 and D-max = 10 inches
Volume Required (Vbmp) =	4,326	cu-ft	
Effective Depth =	1.204	ft	= (Depth-soil x Porosity-soil) + (Depth-gravel x Porosity-gravel) + (Depth-ponding)
Min. Area Required =	3,593	sq-ft	= Vbmp ÷ Effective Depth
Area Provided =	3,712.5	sq-ft	
Width =	6.75	ft	
Length =	550	lf	= 50 lf x 11 units
Volume Provided =	4,470	cu-ft	= Area Provided x Effective Depth

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: Thienes Engineering, Inc. | Date: 1/31/2020
Designed by: Luis Prado | Case No:
Company Project Number/Name: 3828 - Eucalyptus Avenue & Redlands, Moreno Valley

BMP Identification

BMP NAME / ID: DMA H - Eucalyptus BMP - BIO "H"

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}= 0.68 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)*
H1	*16988.4*	*Roofs*	*1*	*0.89*	*15153.7*			
H2	*2178*	*Ornamental Landscaping*	*0.1*	*0.11*	*240.6*			
	19166.4	***Total***			**15394.3**	**0.68**	***872.3***	***1,219***

Notes:
Total tributary area = 0.44 acres

Street BMP - Bioretention Calculations (option S/W easement)

Avg. Soil Depth* =	15.5	inches	= 10.5 inches + 5 inches
Avg. Soil Depth* =	1.29	ft	where 5 inches is average depth (D-min + D-max) ÷ 2
Soil Porosity =	0.30		D-min = 0 and D-max = 10 inches
Gravel Depth =	1.00	ft	
Gravel Porosity =	0.40		
Avg. Ponding Depth =	5.00	inches	5 inches is average depth (D-min + D-max) ÷ 2
Avg. Ponding Depth =	0.42	ft	where D-min = 0 and D-max = 10 inches
Volume Required (Vbmp) =	873	cu-ft	
Effective Depth =	1.204	ft	= (Depth-soil x Porosity-soil) + (Depth-gravel x Porosity-gravel) + (Depth-ponding)
Min. Area Required =	725	sq-ft	= Vbmp ÷ Effective Depth
Area Provided =	1,012.5	sq-ft	
Width =	6.75	ft	
Length =	150	lf	= 50 lf x 3 units
Volume Provided =	1,219	cu-ft	= Area Provided x Effective Depth

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	Thienes Engineering, Inc.	Date	1/31/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA I - Redlands BMP - BIO "I"

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}= 0.68 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)*
I1	*66646.8*	*Roofs*	*1*	*0.89*	*59448.9*			
I2	*2178*	*Ornamental Landscaping*	*0.1*	*0.11*	*240.6*			
	68824.8	*Total*			59689.5	0.68	*3382.4*	*3,771*

Notes:

Total tributary area = 1.58 acres

Street BMP - Bioretention Calculations (option S/W easement)

Avg. Soil Depth* =	15.5	inches	= 10.5 inches + 5 inches
Avg. Soil Depth* =	1.29	ft	where 5 inches is average depth (D-min + D-max) ÷ 2
Soil Porosity =	0.30		D-min = 0 and D-max = 10 inches
Gravel Depth =	1.00	ft	
Gravel Porosity =	0.40		
Avg. Ponding Depth =	5.00	inches	5 inches is average depth (D-min + D-max) ÷ 2
Avg. Ponding Depth =	0.42	ft	where D-min = 0 and D-max = 10 inches
Volume Required (Vbmp) =	3,383	cu-ft	
Effective Depth =	1.204	ft	= (Depth-soil x Porosity-soil) + (Depth-gravel x Porosity-gravel) + (Depth-ponding)
Min. Area Required =	2,809	sq-ft	= Vbmp ÷ Effective Depth
Area Provided =	3,132.0	sq-ft	
Width =	6.75	ft	
Length =	464	lf	
Volume Provided =	3,771	cu-ft	= Area Provided x Effective Depth

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: Thienes Engineering, Inc. | Date: 1/31/2020

Designed by: Luis Prado | Case No:

Company Project Number/Name: 3828 - Eucalyptus Avenue & Redlands, Moreno Valley

BMP Identification

BMP NAME / ID: DMA J - Redlands - BIO "J"

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}= 0.68 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 Imprevious 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)*
J1	*30927.6*	*Roofs*	*1*	*0.89*	*27587.4*			
J2	*2178*	*Ornamental Landscaping*	*0.1*	*0.11*	*240.6*			
	33105.6	***Total***			**27828**	**0.68**	**1576.9**	**1,626**

Notes:

Total tributary area = 0.76 acres

Street BMP - Bioretention Calculations (option S/W easement)

Avg. Soil Depth* =	15.5	inches	= 10.5 inches + 5 inches
Avg. Soil Depth* =	1.29	ft	where 5 inches is average depth (D-min + D-max) ÷ 2
Soil Porosity =	0.30		D-min = 0 and D-max = 10 inches
Gravel Depth =	1.00	ft	
Gravel Porosity =	0.40		
Avg. Ponding Depth =	5.00	inches	5 inches is average depth (D-min + D-max) ÷ 2
Avg. Ponding Depth =	0.42	ft	where D-min = 0 and D-max = 10 inches
Volume Required (Vbmp) =	1,577	cu-ft	
Effective Depth =	1.204	ft	= (Depth-soil x Porosity-soil) + (Depth-gravel x Porosity-gravel) + (Depth-ponding)
Min. Area Required =	1,310	sq-ft	= Vbmp ÷ Effective Depth
Area Provided =	1,350.0	sq-ft	
Width =	6.75	ft	
Length =	200	lf	
Volume Provided =	1,626	cu-ft	= Area Provided x Effective Depth

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	Thienes Engineering, Inc.	Date	1/31/2020
Designed by	Luis Prado	Case No	
Company Project Number/Name	3828 - Eucalyptus Avenue & Redlands, Moreno Valley		

BMP Identification

BMP NAME / ID: DMA K - Encelia BMP - BIO "K"

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}= 0.68 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)*
K1	*102366*	*Roofs*	*1*	*0.89*	*91310.5*			
K2	*13068*	*Ornamental Landscaping*	*0.1*	*0.11*	*1443.5*			
	115434	***Total***			**92754**	**0.68**	***5256.1***	***5,283***

Notes:

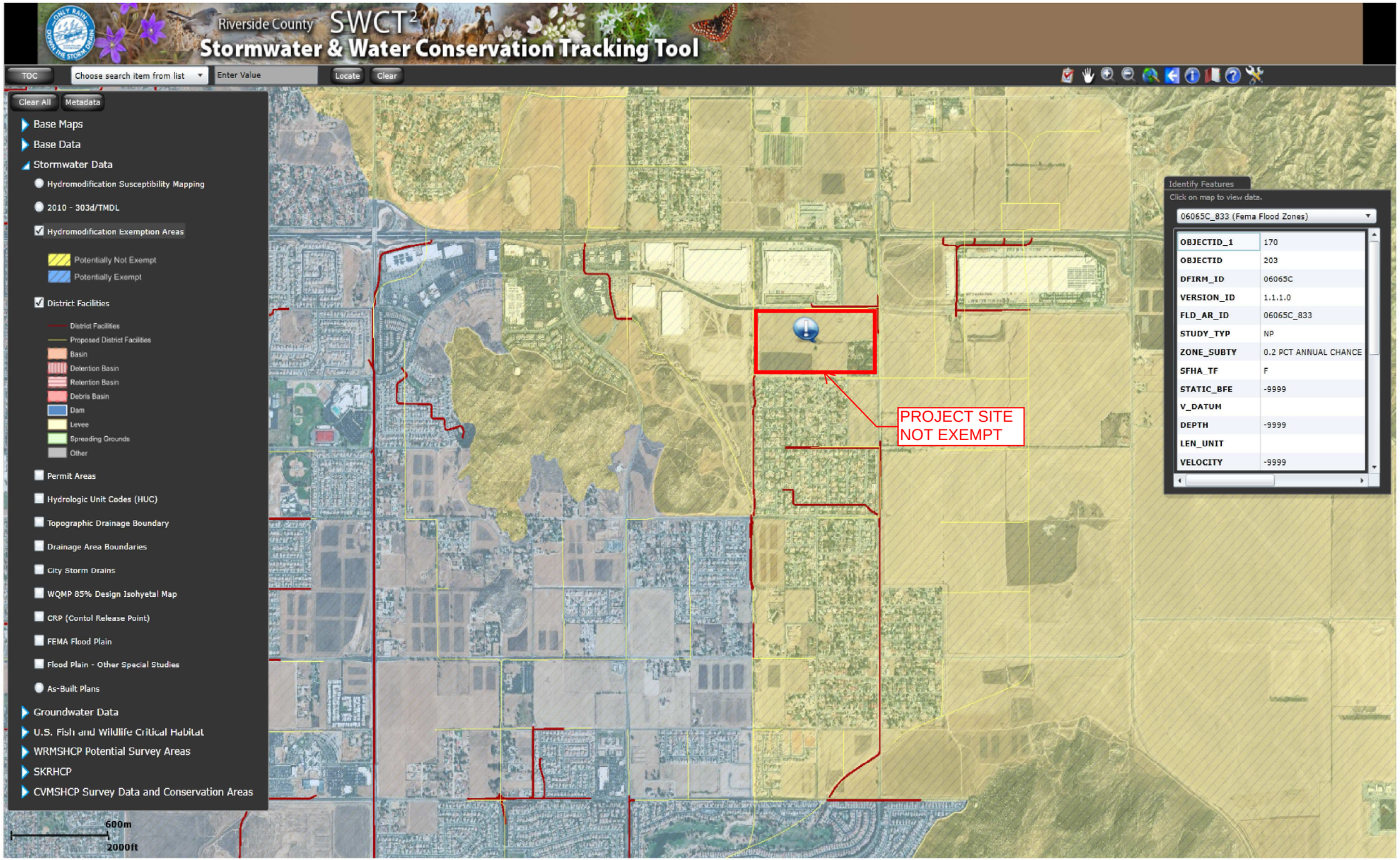
Total tributary area = 2.65 acres

Street BMP - Bioretention Calculations (option S/W easement)

Avg. Soil Depth* =	15.5	inches	= 10.5 inches + 5 inches
Avg. Soil Depth* =	1.29	ft	where 5 inches is average depth (D-min + D-max) ÷ 2
Soil Porosity =	0.30		D-min = 0 and D-max = 10 inches
Gravel Depth =	1.00	ft	
Gravel Porosity =	0.40		
Avg. Ponding Depth =	5.00	inches	5 inches is average depth (D-min + D-max) ÷ 2
Avg. Ponding Depth =	0.42	ft	where D-min = 0 and D-max = 10 inches
Volume Required (Vbmp) =	5,257	cu-ft	
Effective Depth =	1.204	ft	= (Depth-soil x Porosity-soil) + (Depth-gravel x Porosity-gravel) + (Depth-ponding)
Min. Area Required =	4,366	sq-ft	= Vbmp ÷ Effective Depth
Area Provided =	4,387.5	sq-ft	
Width =	6.75	ft	
Length =	650	lf	= 50 lf x 13 units
Volume Provided =	5,283	cu-ft	= Area Provided x Effective Depth

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
2010 - 303d/TMDL
Hydromodification Exemption Areas
Potentially Not Exempt
Potentially Exempt
District Facilities
District Facilities
Proposed District Facilities
Basin
Detention Basin
Retention Basin
Debris Basin
Dam
Levee
Spreading Grounds
Other
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
As-Built Plans
Groundwater Data
U.S. Fish and Wildlife Critical Habitat
WRMSHCP Potential Survey Areas
SKRHCP
CVMSHCP Survey Data and Conservation Areas
600m
2000ft
PROJECT SITE
NOT EXEMPT
Identify Features
Click on map to view data.
06065C_833 (Fema Flood Zones)
OBJECTID_1 170
OBJECTID 203
DFIRM_ID 06065C
VERSION_ID 1.1.1.0
FLD_AR_ID 06065C_833
STUDY_TYP NP
ZONE_SUBTY 0.2 PCT ANNUAL CHANCE
SFHA_TF F
STATIC_BFE -9999
V_DATUM
DEPTH -9999
LEN_UNIT
VELOCITY -9999

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.**

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.**

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❑ 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**

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
☒ 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/

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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
❑ 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**

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❑ 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.**

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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/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
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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.**

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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**

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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
❑ 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