Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project title: "Carden School Project" / Project No. 2019-000063 – (4) / Case No(s). TR 82457 RPPL 2019000014

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Peter Chou, Regional Planner, 213 974-6433

Project sponsor's name and address: Brent Johnson, Century Communities, 4695 MacArthur Court, Suite 350, Newport Beach, CA 92660

Project location: 11537 Grovedale Drive, Whittier, CA 90604
APN: 8039-014-027 *USGS Quad*: La Habra

Gross Acreage: 5.77 acres

General plan designation: Public / Semi-Public (P)

Community/Area wide Plan designation: N/A

Zoning: Residential Agricultural (R-A-6000)

Description of project:

The project would demolish the existing private school uses on the northern 5.8-acre portion of the site (the Carden School) and associated accessory structures and subdivide the site into 31 separate lots that would be developed with 29 single-family homes, two open space lots, and a new public road ("A" Court) and illustrate the proposed site and lot configuration Figure 1, *Tentative Tract Map*.

As shown, the proposed residential development would include single-family residences on parcels ranging from 6,000 square feet to 10,501 square feet of gross lot area, with private driveways and outdoor areas. Lots 1,2, 19, 20, 21, and 22 would have frontage and driveways accessed from Grovedale Drive; Lots 23 through 30 would have frontage and driveways accessed from Richvale Drive; and Lots 3 through 18 would have frontage and driveways accessed from the new public road ("A" Court), as depicted in Figure 1. Table 1 details the proposed lot sizes and description of the proposed uses.

Table 1: Proposed Lot Breakdown

Lot No.	Gross Area (sf)	Net Area (sf)	Description
1	6,412	6,412	Single-Family Dwelling
2	6,523	6,523	Single-Family Dwelling
3	7,005	7,005	Single-Family Dwelling
4	6,569	6,569	Single-Family Dwelling

5	7,773	7,773	Single-Family Dwelling
6	10,501	10,501	Single-Family Dwelling
7	6,084	6,084	Single-Family Dwelling
8	6,071	6,071	Single-Family Dwelling
9	6,074	6,074	Single-Family Dwelling
10	6,092	6,092	Single-Family Dwelling
11	7,001	7,001	Single-Family Dwelling
12	8,826	8,820	Single-Family Dwelling
13	7,082	7,082	Single-Family Dwelling
14	7,639	7,639	Single-Family Dwelling
15	6,718	6,718	Single-Family Dwelling
16	6,855	6,855	Single-Family Dwelling
17	6,855	6,855	Single-Family Dwelling
18	4,580	4,580	Open Space
19	6,462	6,462	Single-Family Dwelling
20	6,000	6,000	Single-Family Dwelling
21	6,000	6,000	Single-Family Dwelling
22	6,659	6,592	Single-Family Dwelling
23	6,957	6,957	Single-Family Dwelling
24	6,358	6,358	Single-Family Dwelling
25	6,163	6,163	Single-Family Dwelling
26	6,084	6,084	Single-Family Dwelling
27	6,056	6,056	Single-Family Dwelling
28	6,590	6,590	Single-Family Dwelling
29	6,260	6,260	Single-Family Dwelling
30	6,860	6,628	Single-Family Dwelling
31	6,636	3,254	Open Space

A portion of Lot 23 would also be used for underground biofiltration system; passive open space and landscaping are proposed for Lot 18 and Lot 31.

The Lowell Joint School District Maintenance Facility would remain in place and would not be redeveloped.

Architectural Design

The 29 residences would be two-story single-family homes and would be approximately 26 feet 6 inches in height. Two different plan types are offered. The Plan 1 home design includes a "pop top" attic design, which would reduce wall height at the back of the home to create a lower perceived roofline to mimic a single-story home. Plan 1 homes would be plotted next to existing single-story homes in the project vicinity as much as possible to limit massing and provide neighborhood cohesiveness. Plan 2 would be a traditional two-story home design and includes a tandem 3-car garage which is intended to limit driveway area in the front yards. Plan 2 homes would be plotted in limited areas where no more than two Plan 2 type homes would be plotted adjacent to each other.

Plan 1 homes would average up to approximately 2,734 square feet, as shown in Table 2. Plan 2 homes would be either approximately 2,912 square feet but would offer an option to include a "casita" accessory dwelling unit (ADU) for a total of 3,317 square feet for the two-story design footprint. The single story design would consist of a 3-bedroom, 3-bathroom floor plan with a loft and a den, which would also include a 2-car garage. The two-story design consists of a 5-bedroom, 3-bathroom floor plan with a potential in-law suite option, which would also include a 3-car tandem garage.

Table 2: Proposed Residential Units

Residence Type	Number of Units	Average Total Square Footage (sf)	Bedrooms	Bathrooms
Plan 1	14	2,734 sf	3	3
Plan 2	15	2,912 – 3,317* sf	5	3

Note: * 3,317 sf only attainable with an optional ADU.

The project includes two different elevations, a Spanish style and a Cottage style. These elevation styles both include similar architectural elements such as concrete roof tiles, stucco finishing, shutters, over hangs, and columns.

Onsite Roadways

The proposed project would include a new public road ("A" Court) with a cul-de-sac that would be accessed from Grovedale Drive. Lots 3 through 18 would be served by the new public road ("A" Court), while Lots 1,2 and 19 through 22 would be served by private driveways on Grovedale Drive, and Lots 23 through 30 would be served by private driveways on Richvale Drive.

Recreation and Open Space

The project includes a 6,636-square foot open space lot (Lot 31), which would be used for passive recreation and landscaping. A portion of Lot 31 would be deeded to ensure proper fire setbacks for the existing buildings on the Lowell Joint School District Maintenance Facility, which will remain in place, to ensure compliance with the County's Fire Code standards.

Each home includes front and back yards for private open space. The homes would have a 20-foot front yard setback, 15-foot rear yard setback, and 5-foot side yard setback. The reversed corner lots would have a 10-foot side yard setback.

Walls and Fencing

The proposed project would construct a 6-foot block wall adjacent to Lot 30, as well as walls ranging from 7 feet 6 inches to 8 feet 6 inches along the southern property line adjacent to the Lowell Joint School District

Maintenance Facility. Lots 6 through 12 will be provided with a wrought iron fence along the western property line. Approval of a Yard Modification is also being requested to permit walls along the southern property boundary exceed 6-feet, as established by Chapter 22.196 of the County's Code. The Yard Modification would allow 3-foot retaining walls, with a 5-foot 6-inch perimeter wall atop, for back yards along the southern property boundary. The walls would be designed to meet planning requirements for color and block type. Finally, fences and walls in the front yard setback would not exceed 3.5 feet.

Infrastructure Improvements

Water and Sewer

The proposed project would install new water and sewer lines onsite that would connect to an existing 6-inch diameter water and 8-inch sewer main on Grovedale Drive and Richvale Drive.

Drainage

A series of onsite storm drain facilities with Low Impact Development (LID) and Peak Storm elements are proposed. The proposed project would install new drainage infrastructure that would capture, convey, and/or infiltrate runoff, such that storm water runoff would not increase with implementation of the proposed project. Storm water runoff in the project vicinity currently flows from south to north.

Proposed stormwater runoff would be bio-filtrated through three separate Filterra units on the project site. The proposed Filterra units are flow-based systems sized adequately to provide treatment for tributary drainage subareas. Each Filterra unit would each serve a different area of runoff before discharging into an existing storm drain in Richvale Drive via a proposed storm drain connection. These units will be maintained by the future homeowner's association.

Subdivision

As part of the project, a subdivision approval would be required to subdivide the one parcel into 31 separate parcels approximately 6,000 sf to 10,501 sf in size (refer to Figure 1, *Tentative Tract Map*). The Project site (APN: 8039-014-027) would be subdivided into 31 separate parcels that would consist of the single-family residences and open space.

General Plan and Zoning

The project site currently has an existing General Plan land use designation of Public and Semi-Public (P). As stated in the Land Use Element of the General Plan (2015a), "In the event that the public or semi-public use of mapped facilities is terminated, alternative uses that are compatible with the surrounding development, in keeping with community character, are permitted". The adjacent areas are residential communities similar to and compatible with the proposed single family residential subdivision; therefore, the proposed project is consistent with the General Plan.

The project site currently has a zoning designation of Residential Agricultural (R-A-6000). The general plan land use and zoning would remain the same.

Construction Duration and Grading

Construction activities include demolition of the existing structures, pavement, and the existing utility infrastructure; grubbing, grading, excavation and re-compaction of soils; utility and infrastructure installation; building construction; roadway pavement; and architectural coatings. Grading is expected to require

approximately 7,540 cubic yards (cy) of cut and 3,410 cy of fill for a total export of approximately 572 cy of fill.

Construction of the proposed project is anticipated to occur over the course of 22 months, beginning in August 2020 and ending in May 2022. It is anticipated that building production and architectural coating would occur in five phases, with construction of the model homes beginning in April of 2021, and project close out occurring in May 2022. Table 3 shows the anticipated construction schedule for the proposed project.

Table 3: Construction Schedule

Construction Activity	Timeline
1. Demolition	30 days
2. Site Preparation	10 days
3. Grading	20 days
4. Utility Installation	140 days
5. Paving	45 days
6. Building Construction	100 days
7. Architectural Coating	11 months

Construction would occur within the hours allowable by Los Angeles County Code Title 12, Environmental Protection, Section 12.08.440, which states that construction shall occur only between the hours of 7 a.m. and 7 p.m. Monday through Saturday, with no construction allowed on Sundays and holidays.

Discretionary Approvals and Permits

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, the County is the designated Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

The discretionary actions to be considered by the County as part of the proposed project include:

- **Tentative Tract Map Approval** to reconfigure the project site from one single parcel to 31 separate parcels.
- **Yard Modification** to modify the supplemental yard requirement established by Subsection E of Section 22.110.080 of the County's Code.
- **Site Plan Approval** to review and approve the location, design, configuration, and impact of the proposed development of the project.

Surrounding land uses and setting:

Project Location

The project site is located at 11537 Grovedale Drive, Whittier, CA 90604 (APN: 8039-014-027) in the unincorporated area of Los Angeles County. This portion of unincorporated Los Angeles County

encompasses approximately 5 square miles of land and is with the La Habra to the east; South Whittier and La Mirada to the west; Hacienda Heights to the north; and Buena Park to the south. As shown on Figure 2, Regional Location, regional access to the project site is provided by State Route (SR) 39 (N. Beach Boulevard) and SR 72 (W. Whittier Boulevard). The project site is located on the southwest corner of Grovedale Drive and Richvale Drive, as shown in Figure 3, Local Vicinity Map.

Project Site

The existing parcel is a total of 5.75-acres with the Carden School located on the northern portion of the parcel ("project site"), as shown on Figure 4, *Existing Land Uses*. The existing Carden School has four permanent single-story structures, as well as 14 single-story modular structures with associated improvements such as paved and turf playfields, a parking lot, and playgrounds. The Lowell Joint School District Maintenance Facility consists of three structures and parking area with storage containers.

An existing oil well has been located on the project site, and according to the California Division of Oil, Gas, and Geothermal Resources, the well is not abandoned to current Division requirements as prescribed by law, and based upon information provided, is projected to be built over or have future access impeded. The Division expects this well to be abandoned or reabandoned in compliance with current Division requirements prior to development. This is discussed further in Section 4.7, Geology and Soils.

The site is landscaped and includes ornamental grass/turf field areas, as well as shrubs and mature trees between the project site and existing residences to the west. Vehicular access to the site is provided via a one-way driveway and parking area on Grovedale Drive. The project site is bounded by Richvale Drive to the north, and Grovedale Drive to the east.

Existing General Plan and Zoning Designations

The project site has General Plan designation of Public and Semi-Public (P). The stated intent of the Public and Semi-Public (P) designation is to provide for areas of public and semi-public facilities and community-serving uses, including public buildings and campuses, schools, hospitals, cemeteries, and fairgrounds; airports and other major transportation facilities. The General Plan states that in the event that the Public or Semi-Public use of mapped facilities is terminated, alternative uses that are compatible with the surrounding development, in keeping with community character, are permitted. The Public and Semi-Public (P) designation allows varying densities and a maximum floor area ratio of 3.0.

The project site has a zoning designation of Residential Agricultural (R-A-6000). The minimum lot size of land zoned R-A-6000 is 6,000 square feet. According to Title 22, Section 22.16.030 of the Los Angeles County Zoning Code, single-family residences and crops are allowable uses for this zone.

Surrounding Land Uses, General Plan and Zoning Designations

The project site is located within a developed, residential area within unincorporated Los Angeles County as described below:

North: Across Richvale Drive to the north of the project site are single-family residential uses, designated as Residential 9 (H9) in the General Plan and zoned Residential Agricultural (R-A- 6000).

West: Immediately west of the project site are single family residential uses, designated as Residential 9 (H9) in the General Plan and is zoned Residential Agricultural (R-A-6000).

South: Immediately south of the project site is the existing maintenance facilities for the Lowell Joint School District, as well as single family residential uses, designated as Residential 9 (H9) in the General Plan and is zoned Residential Agricultural (R-A-6000).

East: Across Grovedale Drive to the east of the project site are single-family residential uses, designated as Residential 9 (H9) in the General Plan and is zoned Residential Agricultural (R-A-6000).

Existing Plans, Programs, or Policies (PPPs)

Throughout the impact analysis in this Initial Study, reference is made to requirements that are applied to all development on the basis of federal, state, or local law, and Existing Plans, Programs, or Policies currently in place which effectively reduce environmental impacts. Existing Plans, Programs, or Policies are collectively identified in this document as PPPs. Where applicable, PPPs are listed to show their effect in reducing potential environmental impacts. Where the application of these measures does not reduce an impact to below a level of significance, a project-specific mitigation measure is introduced. Los Angeles County will include these PPPs along with mitigation measures in the Mitigation Monitoring and Reporting Program (MMRP) for the project to ensure their implementation.

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

Pursuant to the requirements of Assembly Bill 52, the County sent informational letters about the proposed project and requests for consultation to each tribe on the County's list of tribes requesting consultation on November 1, 2019. The County received a response from the Gabrieliño Band of Mission Indians - Kizh Nation requesting consultation, which concluded on January 31, 2020. No information regarding tribal cultural resources (TCRs) on the Project site or vicinity was provided. However, to mitigate impacts of inadvertently discovered TCRs during construction earthmoving operations, Mitigation Measure TR-1 has been included in this Initial Study which implements tribal monitoring prior to initial site clearing (such as pavement removal, grubbing, tree removals) and ground-disturbing activities that cause excavation to depths greater than artificial fill into previously undisturbed soils.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Figure 1: Tentative Tract Map

MAJOR LAND DIVISION

VESTING TENTATIVE TRACT NO. 82457

LOCATED IN THE UNINCORPORATE TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

LEGAL DESCRIPTION

REAL PROPERTY IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT PORTION AS SHOWN IN EXHIBIT "A" IN THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED OCTOBER 5, 2010 AS INSTRUMENT NO. 20101420154 OF OFFICIAL RECORDS DESCRIBED AS FOLLOWS:

LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED AUGUST 8, 1969 AS INSTRUMENT NO. 1104, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 197 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 197 A DISTANCE OF 55.96 FEET; THENCE SOUTH 11°51'27" EAST 48.39 FEET; THENCE SOUTH 1°10'43" EAST 12.07 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 197; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 66.77 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 197; THENCE ALONG THE EASTERLY LINE OF SAID LOT 197, NORTH 0°35'30" EAST 59.32 FEET TO THE POINT OF BEGINNING

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED APRIL 9, 1970 AS INSTRUMENT NO. 1573, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 148 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE NORTH 71°22'40" EAST ALONG THE NORTHWESTERLY LINE OF SAID LOT 149 AND ALONG THE SOUTHEASTERLY LINE OF RICHVALE DRIVE, 60 FEET WIDE AS SHOWN ON SAID MAP OF TRACT NO. 24458, A DISTANCE OF 16.29 FEET; THENCE SOUTH 0°35'30" WEST 114.11 FEET; THENCE SOUTH 11°59'27" EAST 3.60 FEET TO THE NORTHEASTERLY PROLONGATION OF THE SOUTHEASTERLY LINE OF SAID LOT 148; THENCE ALONG SAID NORTHEASTERLY PROLONGATION, SOUTH 71°24'55" WEST 17.11 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 148; THENCE ALONG THE EASTERLY LINE OF SAID LOT 148, NORTH 0°35'30" EAST 117.88 FEET TO THE POINT OF BEGINNING

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED SEPTEMBER 30, 1974 AS INSTRUMENT NO. 3044, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 202 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 202, A DISTANCE OF 65.00 FEET; THENCE SOUTH 2°31'49" WEST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 202; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 63.14 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 202; THENCE ALONG THE EASTERLY LINE OF SAID LOT 202, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED NOVEMBER 7, 1975 AS INSTRUMENT NO. 4984, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 198 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 198, A DISTANCE OF 66.77 FEET; THENCE SOUTH 1°10'43" EAST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 198; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 64.77 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 198; THENCE ALONG THE EASTERLY LINE OF SAID LOT 198, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED FEBRUARY 9, 1977 AS INSTRUMENT NO. 77-140390, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 200 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 200, A DISTANCE OF 68.75 FEET; THENCE SOUTH 2°31'49" WEST 55.04 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 200; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 66.87 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 200; THENCE ALONG THE EASTERLY LINE OF SAID LOT 200, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED JULY 20, 1977 AS INSTRUMENT NO. 77-784377, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 199 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 199 A DISTANCE OF 68.47 FEET; THENCE SOUTH 1°10'43" EAST 32.80 FEET; THENCE SOUTH 2°31'49" WEST 22.24 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 199; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 68.73 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 199; THENCE ALONG THE EASTERLY LINE OF SAID LOT 199, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED JANUARY 18, 1979 AS INSTRUMENT NO. 79-89223, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 196 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 78 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE NORTH 71°24'55" EAST ALONG THE NORTHEASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 196 A DISTANCE OF 17.11 FEET; THENCE SOUTH 11°51'27" EAST 184.63 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 196; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 55.96 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 196; THENCE ALONG THE EASTERLY LINE OF SAID LOT 196; NORTH 0°35'30" EAST 174.67 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED OCTOBER 9, 1980 AS INSTRUMENT NO. 80-1001764, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 203 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 203, A DISTANCE OF 63.14 FEET; THENCE SOUTH 2°31'49" WEST 50.14 FEET TO THE SOUTHERLY LINE OF SAID LOT 149; THENCE ALONG SAID SOUTHERLY LINE OF LOT 149; SOUTH 88°40'36" WEST 61.47 FEET TO A POINT IN THE EASTERLY LINE OF SAID LOT 203; THENCE ALONG THE EASTERLY LINE OF SAID LOT 203 NORTH 0°35'30" EAST 52.46 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED JANUARY 18, 1984 AS INSTRUMENT NO. 84-73069, OF OFFICIAL RECORDS, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 201 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 201 A DISTANCE OF 66.87 FEET; THENCE SOUTH 2°31'49" WEST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 201; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 65.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 201; THENCE ALONG THE EASTERLY LINE OF SAID LOT 201, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AS SHOWN IN A DEED CONEYED BY LOWELL JOINT SCHOOL DISTRICT OF LOS ANGELES AND ORANGE COUNTIES, RECORDED MAY 29, 2009 AS INSTRUMENT NO. 20090796364, OF OFFICIAL RECORDS, LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHEASTERLY CORNER OF SAID LOT 149, SAID POINT ALSO BEING THE WESTERLY SIDELINE OF GROVEDALE DRIVE, 60 FEET WIDE, THENCE NORTH 00°21'48" EAST ALONG SAID SIDELINE 217.70 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89°50'00" WEST, 188.81 FEET; THENCE NORTH 00°20'00" EAST, 64.50 FEET; THENCE NORTH 89°40'00" WEST, 64.76 FEET; THENCE SOUTH 00°20'00" WEST, 76.65 FEET; THENCE NORTH 89°30'00" WEST, 61.53 FEET; THENCE SOUTH 00°40'40" WEST, 171.74 FEET; THENCE NORTH 89°06'40" WEST, 200.32 FEET MORE OR LESS TO THE EASTERLY LINE OF THE PROPERTY DESCRIBED AS PARCEL 2 IN THE DOCUMENT RECORDED JANUARY 18, 1984 AS INSTRUMENT NO. 84-73070, OFFICIAL RECORDS.

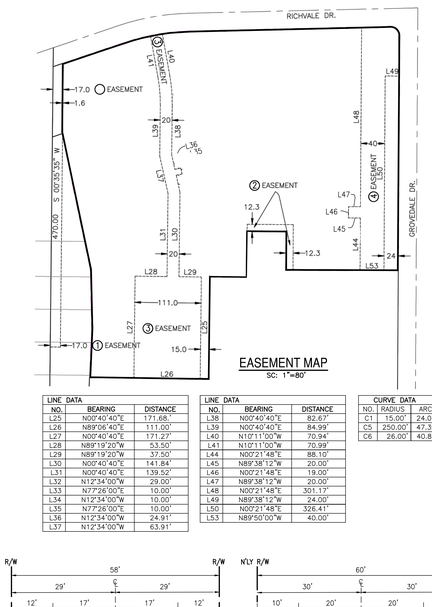
ALSO EXCEPTING FROM THE REMAINDER OF SAID LAND, ALL OIL, GAS ASPHALTUM AND OTHER HYDROCARBONS AND OTHER MINERALS, WHETHER SIMILAR TO THOSE HEREIN SPECIFIED OR NOT, WITHIN OR UNDERLYING OR THAT MAY BE PRODUCED FROM SAID PROPERTY AND THE SOLE AND EXCLUSIVE RIGHT TO DRILL SLANTED WELLS AND THE SOLE AND EXCLUSIVE RIGHT TO DRILL SLANTED WELLS FROM ADJACENT LANDS INTO AND THROUGH AND TO DEVELOP LINES AND CONSTRUCT TUNNELS, SHAFTS AND OTHER WORKS IN AND THROUGH THE SUBSURFACE OF SAID PROPERTY FOR THE PURPOSES OF RECOVERING SAID MINERALS OR ANY OF THEM, FROM SAID PROPERTY OR OTHER PROPERTY, OR BOTH THE RIGHT TO USE THAT PORTION OF THE SUBSURFACE OF SAID PROPERTY LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE OF SAID PROPERTY FOR ALL PURPOSES PERTAINING TO OR INCIDENT TO THE PRODUCTION OF, THE STORAGE OR CONSERVATION OF, OR EXPLORING FOR OIL, GAS, ASPHALTUM, AND OTHER HYDROCARBONS AND OTHER MINERALS WHETHER SIMILAR TO THOSE SPECIFIED OR NOT, OR ANY OF SAID SUBSTANCES BY MEANS OF ANY METHOD NOW KNOWN OR UNKNOWN, BUT NOT INCLUDING WITHIN THE EXCEPTION ANY RIGHT TO USE THE SURFACE OF SAID PROPERTY OR THE PORTION THEREOF LYING ABOVE A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE AFORE SAID PURPOSES, AS EXCEPTED AND RESERVED BY STERN ON OCTOBER 4, 1956 IN BOOK 52482 PAGE 278 OFFICIAL RECORDS AND ON MARCH 6, 1959 IN BOOK D-390 PAGE 148 OFFICIAL RECORDS.

EXCEPT THEREFROM ALL OIL, GAS, ASPHALTUM, AND THE HYDROCARBONS, AND OTHER MINERALS WHETHER SIMILAR TO THOSE HEREIN SPECIFIED OR NOT, WITHIN OR UNDERLYING OR THAT MAY BE PRODUCED FROM SAID LAND, AND ALSO EXCEPTING AND RESERVING THE SOLE AND EXCLUSIVE RIGHT TO DRILL SLANTED WELLS FROM ADJACENT LANDS INTO AND THROUGH, AND TO DEVELOP MINES AND CONSTRUCT TUNNELS, SHAFTS AND OTHER WORKS, IN AND THROUGH THE SUBSURFACE OF SAID LAND FOR THE PURPOSE OF RECOVERING SAID MINERALS OR AND OF THEM FROM SAID LAND OR FROM OTHER PROPERTY, OR BOTH, PROVIDED, HOWEVER, THAT GRANTOR SHALL NOT HAVE THE RIGHT TO USE THE SURFACE OF SAID LAND OR THAT PORTION OF THE SUBSURFACE THEREOF LYING ABOVE A DEPTH OF 500 FEET BELOW THE SURFACE, FOR THE EXPLORATION, DEVELOPMENT, EXTRACTION, REMOVAL OR STORAGE OF SAID MINERALS, AS RESERVED BY STERN REALTY COMPANY, BY DEED RECORDED OCTOBER 4, 1956 IN BOOK D562 PAGE 910, OFFICIAL RECORDS.

EASEMENT NOTES:

1. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF TRACT NO. 24958. FOR: DRAINAGE AND INCIDENTAL PURPOSES. (TO REMAIN)
2. AN EASEMENT FOR INGRESS, EGRESS, ROOF OVERHANG AND MAINTENANCE AND UTILITY AND INCIDENTAL PURPOSES, RECORDED MAY 29, 2009 AS INSTRUMENT NO. 20090796367 OF OFFICIAL RECORDS.
   IN FAVOR OF: LOWELL JOINT SCHOOL DISTRICT, A CALIFORNIA PUBLIC SCHOOL DISTRICT DULY ORGANIZED AND EXISTING UNDER CHAPTER 1 OF DIVISION 3 OF TITLE 2 OF THE EDUCATION CODE OF THE STATE OF CALIFORNIA
   AFFECTS: AS DESCRIBED THEREIN
   RESTRICTIONS ON THE USE OF THE LAND LYING WITHIN THE EASEMENT AREA DESCRIBED ABOVE. (TO QUITCLAIM PRIOR TO THE FINAL MAP RECORDATION)
3. AN EASEMENT FOR WATER LINE FOR FIRE HYDRANT AND INCIDENTAL PURPOSES, RECORDED MAY 29, 2009 AS INSTRUMENT NO. 20090796368 OF OFFICIAL RECORDS.
   IN FAVOR OF: LOWELL JOINT SCHOOL DISTRICT, A CALIFORNIA PUBLIC SCHOOL DISTRICT DULY ORGANIZED AND EXISTING UNDER CHAPTER 1 OF DIVISION 3 OF TITLE 2 OF THE EDUCATION CODE OF THE STATE OF CALIFORNIA
   AFFECTS: AS DESCRIBED THEREIN
   RESTRICTIONS ON THE USE OF THE LAND LYING WITHIN THE EASEMENT AREA DESCRIBED ABOVE. (TO QUITCLAIM PRIOR TO THE FINAL MAP RECORDATION)
4. AN EASEMENT FOR INGRESS AND INCIDENTAL PURPOSES, RECORDED MAY 29, 2009 AS INSTRUMENT NO. 20090796369 OF OFFICIAL RECORDS.
   IN FAVOR OF: LOWELL JOINT SCHOOL DISTRICT, A CALIFORNIA PUBLIC SCHOOL DISTRICT DULY ORGANIZED AND EXISTING UNDER CHAPTER 1 OF DIVISION 3 OF TITLE 2 OF THE EDUCATION CODE OF THE STATE OF CALIFORNIA
   AFFECTS: AS DESCRIBED THEREIN
   RESTRICTIONS ON THE USE OF THE LAND LYING WITHIN THE EASEMENT AREA DESCRIBED ABOVE. (TO QUITCLAIM PRIOR TO THE FINAL MAP RECORDATION)

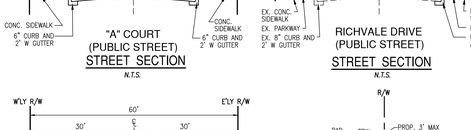
RECEIVED
DEPT. OF REGIONAL PLANNING
TR82457 VESTING TENTATIVE TRACT MAP
01282020

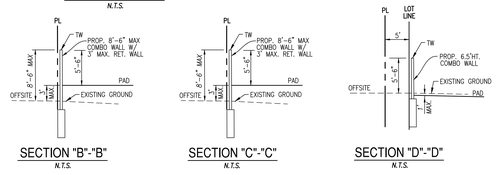


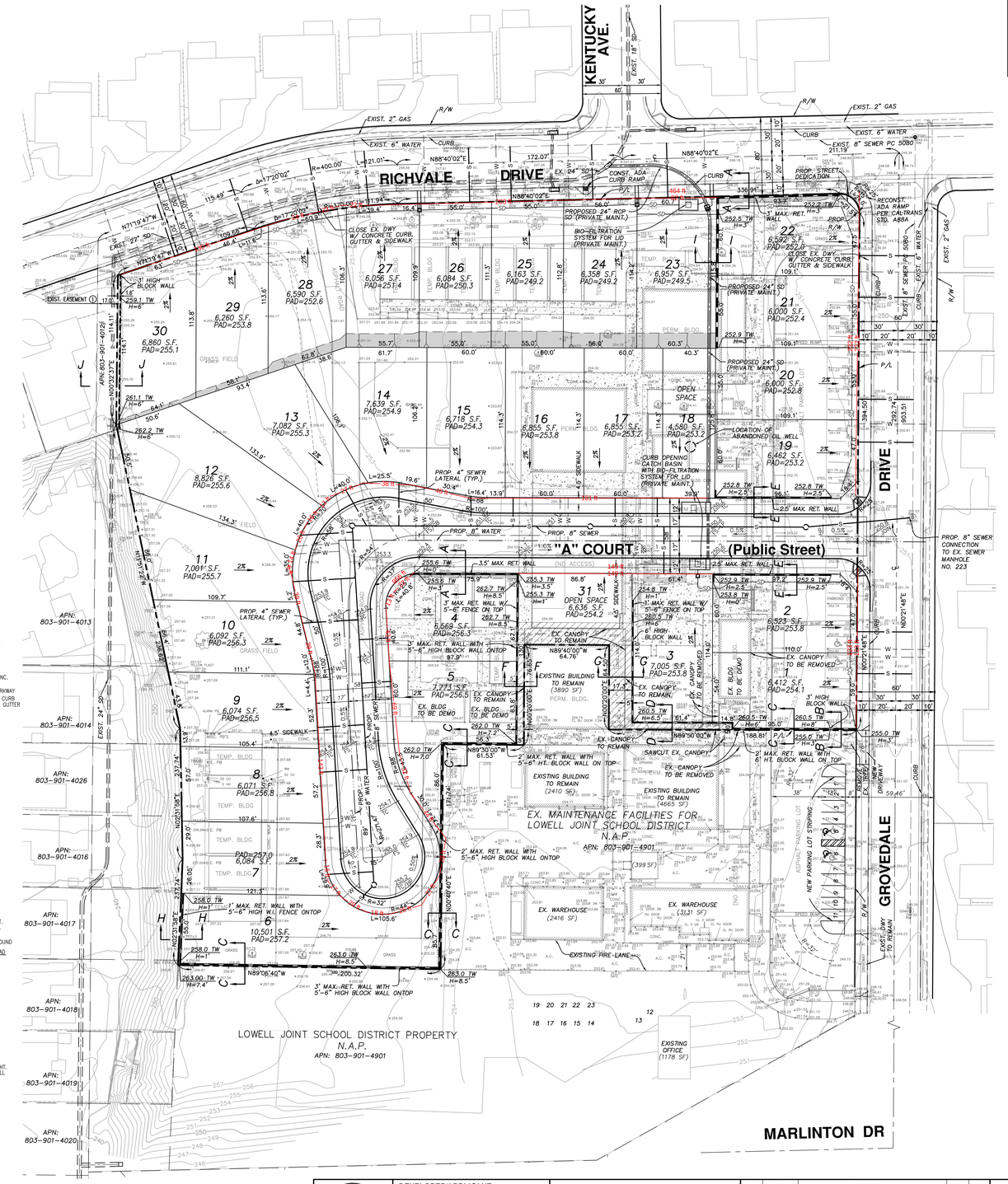
LINE DATA		
NO.	BEARING	DISTANCE
L25	N00°40'40"E	171.68'
L26	N89°06'40"E	111.00'
L27	N00°40'40"E	171.27'
L28	N89°19'20"W	53.50'
L29	N89°19'20"W	37.50'
L30	N00°40'40"E	141.84'
L31	N00°40'40"E	139.52'
L32	N12°34'00"W	29.00'
L33	N77°26'00"E	10.00'
L34	N12°34'00"W	10.00'
L35	N77°26'00"E	10.00'
L36	N12°34'00"W	24.91'
L37	N12°34'00"W	63.91'

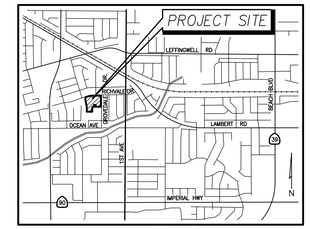
LINE DATA		
NO.	BEARING	DISTANCE
L38	N00°40'40"E	82.67'
L39	N00°40'40"E	84.99'
L40	N10°11'00"W	70.94'
L41	N10°11'00"W	70.99'
L44	N00°21'48"E	88.10'
L45	N89°38'12"W	20.00'
L46	N00°21'48"E	19.00'
L47	N89°38'12"W	20.00'
L48	N00°21'48"E	301.17'
L49	N89°38'12"W	24.00'
L50	N00°21'48"E	326.41'
L53	N89°50'00"W	40.00'

CURVE DATA		
NO.	RADIUS	ARC
C1	15.00'	24.01'
C5	250.00'	47.39'
C6	26.00'	40.84'









VICINITY MAP
NOT TO SCALE

BENCH MARK

LOS ANGELES COUNTY BENCHMARK NO. BY1146
ELEV: 258.597' (NAVD88)
DESCRIBED AS: "RDBM TAG IN W CB 1FT S/O BCR @ SW COR FIRST AVE & SHARON HILL DR"

BASIS OF BEARINGS

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE BEARING OF GROVEDALE DRIVE BEING NORTH 0°21'48" EAST AS SHOWN ON TRACT NO. 24958 RECORDED IN BOOK 653, PAGES 87 THROUGH 92, INCLUSIVE, OF MAPS, IN THE OFFICE OF THE LOS ANGELES COUNTY RECORDER.

FLOOD NOTE

THE SUBJECT PROPERTY FALLS WITHIN "ZONE X – AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN" PER FEMA MAP NO. 06037C1861F, A PRINTED PANEL, EFFECTIVE SEPTEMBER 26, 2008

GENERAL NOTES

1. SEWER DISPOSAL TO BE BY SANITARY SEWER.
2. WATER PURVEYOR IS CALIFORNIA WATER SERVICE COMPANY.
3. REQUESTED ENTITLEMENTS: VESTING TENTATIVE MAP AND YARD MODIFICATION.
4. NO GATE(S) WILL BE PROPOSED FOR THIS PROJECT
5. REQUEST PERMISSION TO GRADE THE SITE UPON GRADING PLAN APPROVAL AND PRIOR TO FINAL MAP RECORDATION.
6. ALL EXISTING BUILDINGS/ STRUCTURES SHALL BE REMOVED.
7. GRADE ELEVATIONS SHOWN ON THE VTM ARE APPROXIMATE, THE ELEVATIONS DEPICTED ON THE TENTATIVE MAP WHICH WILL NOT SUBSTANTIALLY ALTER THE APPROVED GRADING PLAN OR RESULT IN PAD ELEVATION CHANGE OF MORE THAN 3 FEET ARE PERMITTED TO THE SATISFACTION OF THE DPW AND AND DRP.
8. LOT LINES CAN BE ADJUSTED TO THE SATISFACTION OF DRP PROVIDED NO ADDITIONAL DEVELOPMENT LOTS ARE CREATED. THE DEGREE OF ADJUSTMENT SHALL BE CONSISTENT WITH THE INTENT OF THE SUBDIVISION MAP ACT.
9. PROPERTY LINE AND LOT LINE WALL EXCEPT THOSE NOTED ON PLAN, MAY BE UP TO TOTAL HEIGHT OF 8'–6", WITH 3' MAX RETAINING WALL AND 5'–6" GARDEN WALL ATOP. YARD MODIFICATION REQUEST IS PROCESS WITH REGIONAL PLANNING FOR WALL EXCEED 6'.

PROJECT

1. SITE ADDRESS: 11537 GROVEDALE DR. WHITTIER, CA 90604
2. PROPOSED 31 LOTS SUBDIVISION
3. EXISTING AND PROPOSED ZONING
   (1) R-A–6000 SQ. FT. (GROSS)
4. SETBACK REQUIREMENTS:
   FRONT YARD: 20 FEET
   REAR YARD: 15 FEET
   SIDE YARD: 5 FEET
   REVERSED CORNER: 10 FEET
5. PORTION OF LOT 31 WILL BE DEEDED TO JOINT LOWELL SCHOOL DISTRICT FOR FIRE ACCESS AROUND EXISTING BUILDINGS BY LOT LINE ADJUSTMENT AFTER MAP RECORDATION.
6. THERE IS NO PROTECTED TREE ONSITE.
7. "A" COURT IS PROPOSED PUBLIC STREET
8. THE TOTAL LINEAR FOOTAGE OF STREET FRONTAGE ON RICHVALE DRIVE AND GROVEDALE DRIVE IS 2,890 FEET. STREET TREE IS REQUIRED AT EVERY 25' OR 115 TREES

LOT NO.	GROSS AREA (SF)	NET AREA (SF)	DESCRIPTION
1	6412	6412	SFD
2	6523	6523	SFD
3	7005	7005	SFD
4	6569	6569	SFD
5	7773	7773	SFD
6	10,501	10,501	SFD
7	6084	6084	SFD
8	6071	6071	SFD
9	6074	6074	SFD
10	6092	6092	SFD
11	7001	7001	SFD
12	8826	8820	SFD
13	7082	7082	SFD
14	7639	7639	SFD
15	6718	6718	SFD
16	6855	6855	SFD
17	6855	6855	SFD
18	4580	4580	OPEN SPACE
19	6462	6462	SFD
20	6000	6000	SFD
21	6000	6000	SFD
22	6659	6592	SFD
23	6957	6957	SFD
24	6358	6358	SFD
25	6163	6163	SFD
26	6084	6084	SFD
27	6056	6056	SFD
28	6590	6590	SFD
29	6260	6260	SFD
30	6860	6628	SFD
31	6636	3254	OPEN SPACE
A COURT	42878	42878	PUBLIC STREET
TOTAL=	250720	240667	

PARKING REQUIREMENT FOR EXISTING LOWELL JOINT SCHOOL DISTRICT SITE

DESCRIPTION	AREA (SF)	PARKING REQUIRED	PARKING PROVIDED
Warehouse Building	16,911	1 space per 1000 SF for Warehouse (17 total)	23
Office Building	1178	1 space per 400 SF for Warehouse (3 total)	

EARTHWORK QUANTITIES

	CUT (C.Y.)	FILL (C.Y.)
RAW EXCAVATION	7,540	3,410
REMOVAL AND RECOMPACTION	50,666	50,666
10% SHRINKAGE		5,408
STREET UNDERCUT (24")	1,850	
TOTAL	60,056	59,484
	EXPORT : 572 C.Y.	

LEGEND:

- PROPOSED SEWER LINE
- PROPOSED WATER LINE
- PROPOSED PUBLIC STORM DRAIN
- EXISTING 8" SEWER LINE
- EXISTING 6" WATER LINE
- EXISTING 2" GAS LINE
- EASEMENT AREA TO LOWELL JOINT SCHOOL DISTRICT FOR FIRE DEPARTMENT ACCESS AROUND EXISTING BUILDING

SCALE: 1" = 30'
0 30' 60' 90'

DEVELOPER/APPLICANT:
CENTURY COMMUNITIES
4695 MACARTHUR COURT, SUITE 350
NEWPORT BEACH, CALIFORNIA 92660
REPRESENTATIVE: BRENT JOHNSON
PH: (949) 316-3807

REGISTERED PROFESSIONAL ENGINEER JOHN LOVRICH NO.65574 (R 09-30-21) CIVIL STATE OF CALIFORNIA

PREPARED BY:
UNITED CIVIL, INC.
30141 AGOURA ROAD, SUITE 215
AGOURA HILLS, CA. 91301
PH: (818) 707-8648
FAX: (818) 707-8649

NO.	DATE	REVISIONS	BY	APPR

VESTING TENTATIVE TRACT NO. 82

Figure 2: Regional Map

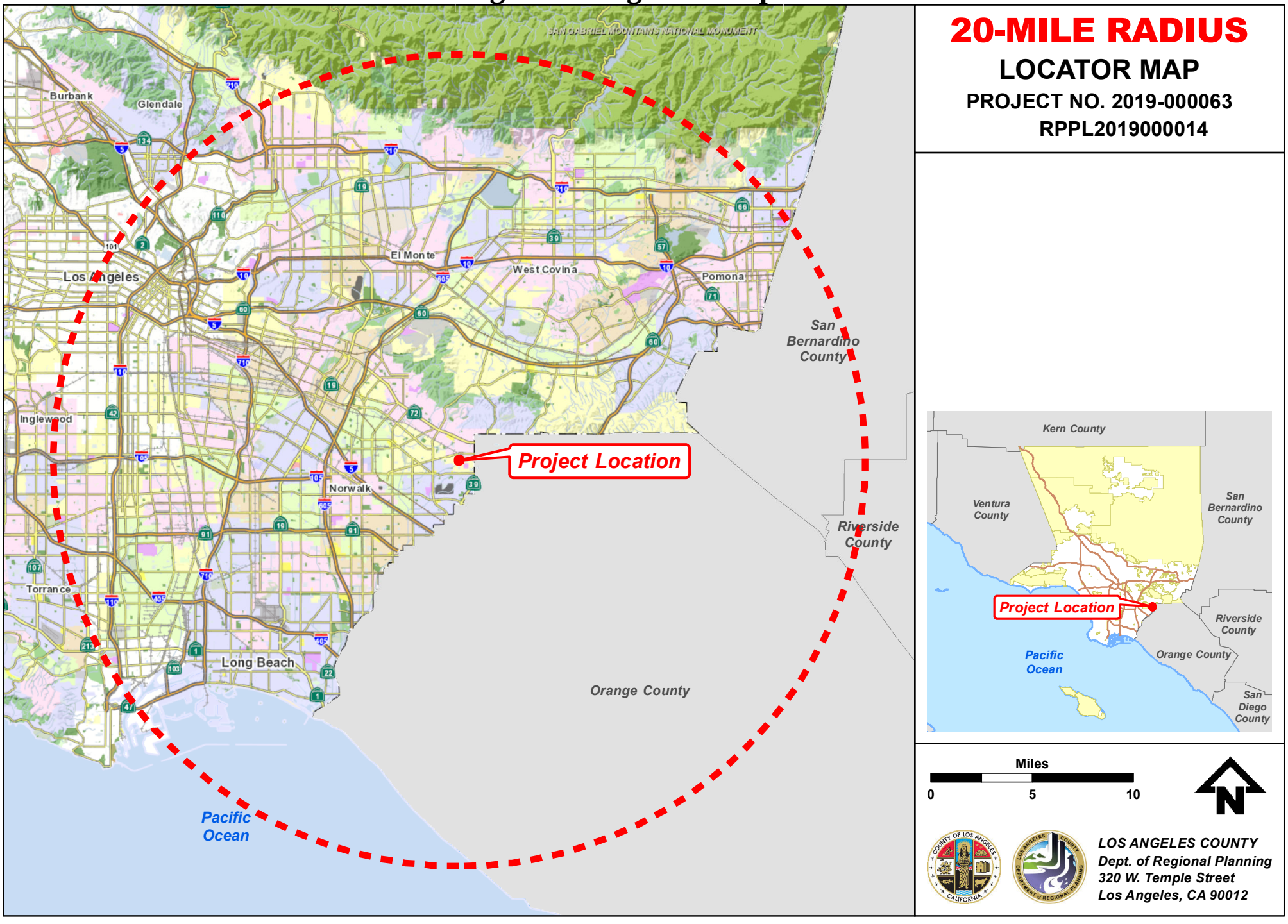
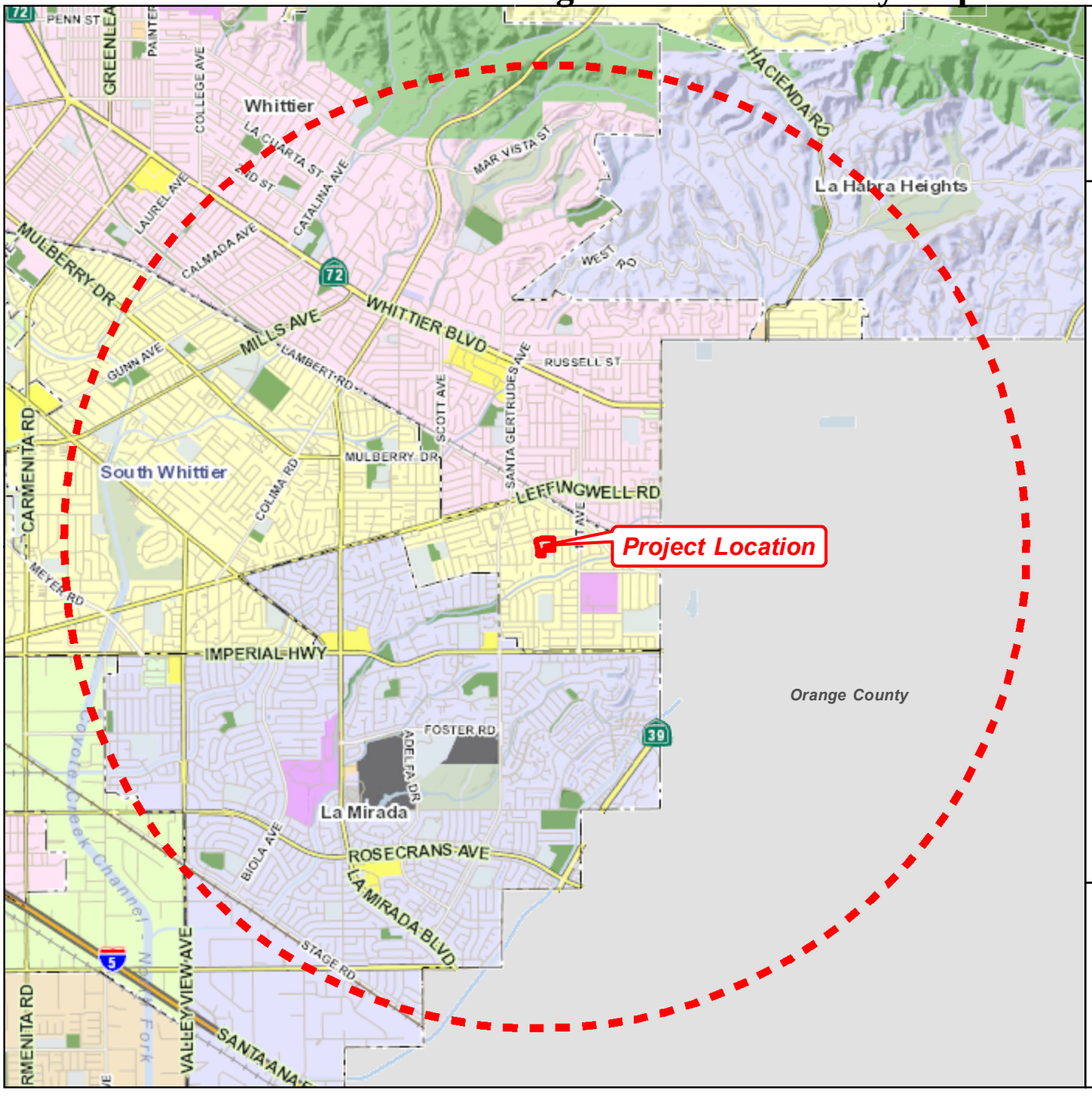


Figure 3: Local Vicinity Map



3-MILE RADIUS

LOCATOR MAP

PROJECT NO. 2019-000063
CUP RPPL2019000014

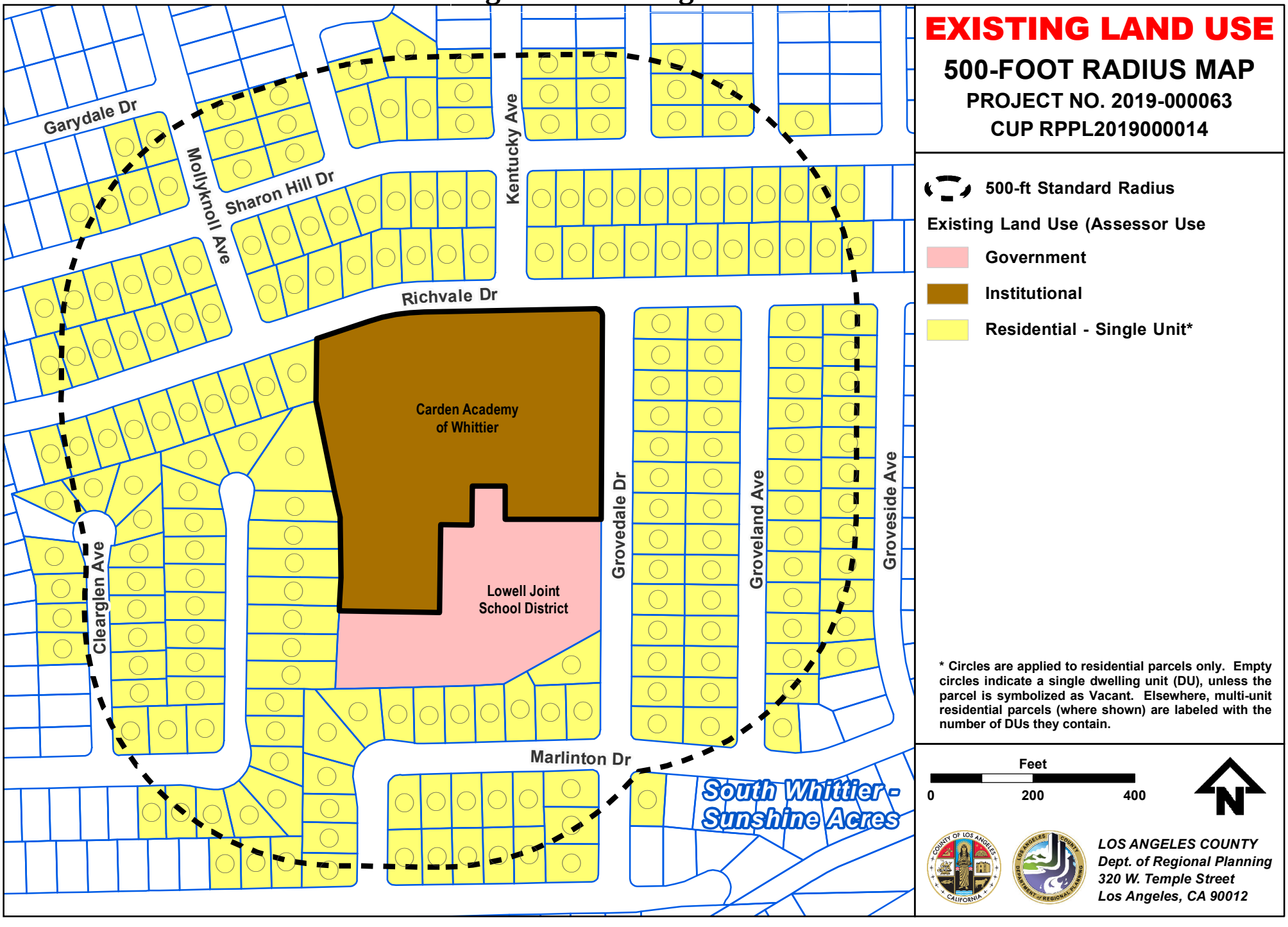


Miles
0
1.5

N

LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

Figure 4: Existing Land Uses



Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Public Agency	*Approval Required*
_____	_____
_____	_____

Major projects in the area:

Project/Case No.	*Description and Status*
_____	_____
_____	_____
_____	_____

Reviewing Agencies: [*See* **CEQA Appendix B** *to help determine which agencies should review your project***]**

Responsible Agencies

- ☐ None
- Regional Water Quality Control Board:
  - ☒ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☐ Army Corps of Engineers
- ☐ LAFCO

Special Reviewing Agencies

- ☒ None
- ☐ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☐ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐

Regional Significance

- ☐ None
- ☐ SCAG Criteria
- ☐ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐

Trustee Agencies

- ☐ None
- ☐ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW
- ☒ Fire Department
  (delete those that don't apply)
  - Forestry, Environmental Division
  - Planning Division
  - Land Development Unit
  - Health Hazmat
- ☐ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Drinking Water Program (Private Wells), Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☒ Parks and Recreation
- ☒ Subdivision Committee

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially significant impacts affected by this project.

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

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

PC Digitally signed by Peter Chou Date: 2020.06.11 16:00:02-07'00' — 6 -11-2020

Signature (Prepared by) — Date

6-11-2020

Signature (Approved by) — Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

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

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

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

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

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

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

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

7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significant. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

1. AESTHETICS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒

No Impact. Scenic vistas consist of expansive, panoramic views of important, unique, or highly valued visual features that are seen from public viewing areas. This definition combines visual quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting. A scenic vista can be impacted in 2 ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether the proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors.

As discussed in the Conservation and Natural Resources Element (2015c) of the County's General Plan, the San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains and Puente Hills play a major role in physically defining the topographically and aesthetically diverse communities in the project area. These landforms not only create dramatic backdrops against developed communities, but also provide extensive environmental and public benefits to residents. However, while the existing General Plan recognizes the importance of scenic resources in the project area, there are no specific views or corridors that are identified for conservation purposes.

The project site is located within an urbanized residential area of unincorporated Los Angeles County. The project includes development of a new residential community that includes 29 new single family residences, drainage and utility infrastructure, open space, as well as a new public road ("A" Court), which are consistent with the site's current zoning designation. The surrounding area is developed with residential buildings that are similar in height, size, and scale to the proposed residential development.

Although the proposed project would result in somewhat higher density uses, the density is consistent with the site's zoning and impacts, if any, on scenic vistas would be minimal given the considerable distance of the project site to scenic features, as well as the fact that these views are already affected by the existing built environment. Therefore, because there are no scenic vistas in the project area, the proposed project would not result in a substantial adverse effect on a scenic vista.

b) Be visible from or obstruct views from a regional riding, hiking, or multi-use trail?	☐	☐	☐	☒

No Impact. The project site is located within a fully developed urban area and is not located in the vicinity of a County regional riding or hiking trail. However, the Arroyo Pescadero Trail is located approximately 2.5 miles northwest of the project site. The Arroyo Pescadero Trail is not located in the vicinity of the project site and does not have direct or indirect views of the project site; thus, the proposed project would not result in impacts related to regional riding or hiking trails and scenic views.

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

No Impact. The proposed project is not located within view of a state scenic highway, as there are no designated scenic highways within the vicinity (Caltrans 2017). The proposed project would not result in impacts to trees, rock outcroppings, or historic buildings within a state scenic highway. The nearest state-designated scenic highway is California State Route 2, approximately 20 miles from the proposed project (Caltrans 2017). Therefore, no impacts to scenic resources would occur.

d) Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality? (Public views are those that are experienced from publicly accessible vantage point)	☐	☐	☒	☐

Less Than Significant Impact. As described previously, the project site is located within an urbanized residential area of unincorporated Los Angeles County that is surrounded by roadways. Beyond the roadways, lands are developed with single-family residential and educational uses.

As discussed previously, existing buildings in the project vicinity include one- to two-story homes to the north; one- to two-story homes to the east; one- to two-story homes to the west; and one-story maintenance buildings to the south. Therefore, although development pursuant to the project would result in a change to the existing visual character of the site, the change in character represented by the residential development would be consistent with the adjacent residential land uses.

Implementation of the proposed project would redevelop the site with 29 new single-family residences, a public road ("A" Court), landscaping, and drainage and utility infrastructure. As discussed in detail below, the proposed project would not conflict with applicable zoning and General Plan regulations governing scenic quality.

The project site has a zoning designation of Residential Agricultural (R-A-6000). The minimum lot size of land zoned R-A-6000 is 6,000 sf. As shown in Table 1: Proposed Lot Breakdown, the project meets the minimum lot size requirements. As described within Title 22 of the Los Angeles County Code, the following uses are intended for this zone: single-family residences and crops (field, tree, bush, berry, row and nursery stock). The proposed project would be consistent with the setbacks, maximum height requirements of 35 feet, and all development standards outlined in Title 22 and Section 22.18.040 of the County's Code.

The design of the proposed residential development would be compatible with the existing style of the surrounding neighborhood and new landscaping adjacent to the proposed single family residences, as well as along the proposed new roadway ("A" Court), would further improve project site conditions and enhance views of the site from adjacent properties.

Overall, the proposed project would be consistent with development standards required in the R-A-6000 zone contained in the County's Code. Improvements associated with the proposed project are anticipated to improve the existing visual character of the project site and would serve to provide increased visual cohesion between the project site and the surrounding residential character of the area. Therefore, the proposed project

would not degrade the visual character of the planning area and impacts would be less than significant, with no mitigation required.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Less Than Significant Impact. Spill light occurs when lighting fixtures such as streetlights, parking lot lighting, exterior building lighting, and landscape lighting are not properly aimed or shielded to direct light to the desired location and light escapes and partially illuminates a surrounding location. Sensitive uses (e.g., residential uses) surrounding the project site could be impacted by the light from development within the boundaries of the project site if light spill occurs.

Glare is the result of improperly aimed or blocked lighting sources that are visible against a dark background such as the night sky. Glare may also refer to the sensation experienced looking into an excessively bright light source that causes a reduction in the ability to see or causes discomfort. Glare generally does not result in illumination of off-site locations but results in a visible source of light viewable from a distance. Glare could also occur from building materials of the new structures, including glass and other reflective materials.

The project site is currently developed four permanent buildings: two classroom buildings, an administration building, and a multi-purpose building, as well as 14 single-story modular structures with security lighting The proposed project would introduce additional sources of light from new building security lighting, streetlights, interior lights shining through building windows, and headlights from nighttime vehicular trips generated from the project. However, the project would only slightly increase lighting and glare compared to the existing condition and new landscaping would be provided throughout the project site to limit impacts from new sources of light and glare. As a standard condition of project approval, the proposed project would be required to comply with lighting standards detailed in the County's Code, which would require project lighting to be shielded, diffused or indirect to avoid glare to both on and offsite residents, pedestrians and motorists. Compliance with the County Code would be implemented through the construction permitting and plan check process. Therefore, impacts associated with new lighting would remain less than significant and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

2. AGRICULTURE / FOREST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	***Less Than Significant Impact with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No Impact. The project site is currently developed and located in an urbanized area of unincorporated Los Angeles County that is predominantly developed with educational and residential uses. The proposed project includes the development of 29 single-family residences and associated improvements that would replace the existing educational uses on the project site. The project site currently has a zoning designation of Residential Agricultural (R-A-6000). While the project site is zoned for Agricultural uses, the project site is in an urbanized area that has not been and is not currently used for agriculture, and is also not designated as Prime, Unique, or Farmland of Statewide Importance (CDC 2019). Therefore, the proposed project would not have impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract?	☐	☐	☒	☐

Less than Significant Impact. The Williamson Act (California Land Conservation Act of 1965) restricts the use of agricultural and open space lands to farming and ranching by enabling local governments to contract with private landowners for indefinite terms in exchange for reduced property tax assessments.

The project site is currently zoned Residential Agricultural (R-A-6000). According to Chapter 22.16 of Los Angeles County Code, Agricultural Zones (Zones R-A, A-1 and A-2) are established to permit a comprehensive range of agricultural uses in areas particularly suited for agricultural activities. Permitted uses are intended to encourage agricultural activities and other such uses required for, or desired by, the inhabitants of the community. An area zoned for agricultural activities may provide the land necessary to permit low-density single-family residential development, outdoor recreational uses, and public and institutional facilities. The existing zoning of the project site will remain in place, and as such, the project would remain consistent with the Residential Agricultural (R-A-6000) zoning of the project site. Therefore, the proposed project would not conflict with the existing agricultural zoning. Thus, impacts would be less than significant, and no mitigation would be required.

Additionally, the project site is not under an active Williamson Act contract. Therefore, development of the project would not result in the cancellation of the contract, and impacts related to a Williamson Act contract would not occur and no mitigation would be required.

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

No Impact. As discussed previously, the project site is within an urbanized residential area and is developed with educational uses. The proposed project includes the construction of 29 single-family residences that would replace the existing educational buildings and associated structures. The project site currently has a zoning designation of Residential Agricultural (R-A-6000). It is not designated or zoned as forest land or timberland, or for timberland production. As a result, the proposed project would not result in impacts on timberland resources and no mitigation is required.

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

No Impact. As discussed previously, the project site is in an urbanized residential area of unincorporated Los Angeles County. There are no forest or timberland resources on or in the vicinity of the project site. The proposed project would not convert forest land to a non-forest use. Likewise, the project site would not contribute to environmental changes that could result in conversion of forest land to non-forest use. Therefore, the project would not result in impacts related to the loss of forest land or the conversion of forest land to non-forest uses and no mitigation is required.

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

No Impact. As discussed previously, the project site is in an urbanized residential area of unincorporated Los Angeles County and is developed with educational uses. The proposed project includes the construction of 29 single-family residences that would replace the existing educational buildings and associated structures. It is currently not used for agricultural purposes and is not designed or zoned for forest land. The proposed project would not convert farmland to a nonagricultural use or convert forest land to a non-forest use. Likewise, the proposed project would not contribute to environmental changes that could result in conversion of farmland to a nonagricultural use or conversion of forest land to a non-forest use. Therefore, no impacts to farmland or forest land would occur as a result of the project and no mitigation is required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☐	☐	☒	☐

Less Than Significant Impact. The project site is located in the South Coast Air Basin and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for preparing the Air Quality Management Plan (AQMP), which addresses federal and state Clean Air Act (CAA) requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin. In preparation of the AQMP, SCAQMD and SCAG use regional growth projections to forecast, inventory, and allocate regional emissions from land use and development-related sources. For purposes of analyzing consistency with the AQMP, if a proposed project would result in growth that is substantially greater than what was anticipated, then the proposed project would conflict with the AQMP. On the other hand, if a project's density is within the anticipated growth of a jurisdiction, its emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD's attainment plans. In addition, the SCAQMD considers a project consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation.

SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors from emissions of CO, NO_X,

PM_{10}, and $PM_{2.5}$. Prominent greenhouse gases that impact air quality includes carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). The methodologies from the SCAQMD CEQA Air Quality Handbook are used in evaluating project impacts. SCAQMD has established daily mass thresholds for regional pollutant emissions, which are shown in Table AQ-1.

Table AQ-1: SCAQMD Regional Daily Emissions Thresholds

Pollutant	Construction (lbs/day)	Operations (lbs/day)
CO	550	550
NO_x	100	55
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55

ROG	75	55

Source: SCAQMD[1]

In addition, The South Coast Air Basin (SCAB) is in a non-attainment status for federal ozone standards, federal carbon monoxide standards, and state and federal particulate matter standards. Any development in the SCAB, including the proposed project, could cumulatively contribute to these pollutant violations. Should construction or operation of the proposed project exceed these thresholds a significant impact could occur; however, if estimated emissions are less than the thresholds, impacts would be considered less than significant.

Sensitive receptors to air quality impacts include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. The nearest residential land use is 50 ft to the north of the project site.

Construction

Construction activities associated with the proposed project would generate pollutant emissions from the following: (1) site preparation, (2) grading, (3) building construction, (4) paving, and (5) architectural coating. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring on that day.

It is mandatory for all construction projects to comply with several SCAQMD Rules, including Rule 403 for controlling fugitive dust, PM_{10}, and $PM_{2.5}$ emissions from construction activities. Rule 403 requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the proposed project site, covering all trucks hauling soil with a fabric cover and maintaining a freeboard height of 12-inches, and maintaining effective cover over exposed areas. Compliance with Rule 403 was accounted for in the construction emissions modeling and is included as PPP AQ-1. In addition, implementation of SCAQMD Rule 1113 that governs the VOC content in architectural coating, paint, thinners, and solvents, was accounted for in the construction emissions modeling, and is included as PPP AQ-2. As shown in Table AQ-2, CalEEMod results indicate that construction emissions generated by the proposed project would not exceed SCAQMD regional thresholds. Therefore, construction activities would result in a less than significant impact.

Table AQ-2: Estimated Maximum Daily Regional Construction Emissions

Activity	Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
2020						
Demolition	3.6	42.0	24.4	0.0	4.6	2.0
Site Preparation	5.7	63.9	23.2	0.1	9.0	6.1
Grading	3.6	43.5	17.6	0.0	4.1	2.8
Building Construction (2020)	2.2	19.6	17.3	0.0	1.2	1.1
Paving	0.0	0.0	0.0	0.0	0.0	0.0

[1] SCAQMD April 2019. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

Architectural Coatings	0.0	0.0	0.0	0.0	0.0	0.0
Maximum Daily Emissions	5.7	63.9	28.2	0.1	9.0	6.1
2021						
Building Construction	2.0	17.7	17.1	0.0	1.1	0.9
Paving	1.4	12.9	15.3	0.0	0.9	0.6
Architectural Coatings	16.6	1.5	1.9	0.0	0.1	0.1
Maximum Daily Emissions	16.6	17.7	17.1	0.0	0.9	0.9
2020 to 2021 Maximum Daily Emissions	**16.6**	**63.9**	**28.2**	**0.1**	**9.0**	**6.1**
Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

(ROG = reactive organic gases NOx = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter CO = carbon monoxide SO_x = sulfur oxides

Source: CalEEMod 2019 (Appendix A)

Operation

Implementation of the proposed project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products. In addition, operational vehicular emissions would generate a majority of the emissions generated from the project.

Operational emissions associated with the proposed project were modeled using CalEEMod and are presented in Table AQ-3. As shown, the proposed project would result in long-term regional emissions of the criteria pollutants that would be below the SCAQMD's applicable thresholds. Therefore, the project's operational emissions would not exceed the NAAQS and CAAQS, would not result in a cumulatively considerable net increase of any criteria pollutant impacts, and would be less than significant.

Table AQ-3: Estimated Maximum Daily Regional Operational Emissions

Operational Activity	Maximum Daily Regional Emissions (pounds/day)				
	ROG	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	1.2	0.0	2.4	0.0	0.0
Energy	0.0	0.2	0.1	0.0	0.0
Mobile	0.4	0.6	6.8	2.0	0.6

Total	**1.6**	**0.8**	**9.3**	**2.0**	**0.6**
SCAQMD Significance Threshold	55	55	550	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod 2019 (Appendix A)

In summary, because the project would not exceed SCAQMD emissions thresholds and is within growth projections for unincorporated Los Angeles County, the proposed project is consistent with the AQMP. Therefore, the impacts related to conflict with the AQMP would be less than significant, and no mitigation would be required.

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

Less Than Significant Impact. The Basin is in nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the State PM10 standard and in attainment/maintenance for the federal PM_{10}, CO, and NO_2 standards. However, as discussed in Response 4.3(a) above, no exceedance of SCAQMD criteria pollutant emission thresholds would be anticipated for either construction or operation of the proposed project. The projected emissions of criteria pollutants as a result of the proposed project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emissions inventory included in the AQMP for the project area. Therefore, there would be less than significant impacts relating to the cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the Basin, and no mitigation would be required.

c) Expose sensitive receptors to substantial pollutant concentrations? ☐ ☐ ☒ ☐

Less Than Significant Impact. As described in Response 4.3(a), the proposed project would not significantly increase long-term emissions within the project area. Construction of the proposed project may expose nearby residential sensitive receptors to airborne particulates as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). Fugitive dust can result in worker and public exposure to fungal spores such as Coccidioides Immitis, which can cause Coccidioidomycosis (Valley Fever). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD's standard construction practices (Rules 402 and 403), as outlined in the PPP AQ-1 and AQ-2 and verified through the County's plan check procedures. Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, as implemented in PPP AQ-3, the Project Applicant would be required to provide awareness training of Valley Fever to workers and other onsite personnel to ensure that impacts would be less than significant.

No mitigation would be required to reduce the project's construction emissions to below SCAQMD's significance thresholds. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction, and potential short-term impacts are considered less than significant, and no mitigation would be required.

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

Less Than Significant Impact. SCAQMD's CEQA Air Quality Handbook (1993) identifies various secondary significance criteria related to odorous air contaminants. Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills, and heavy manufacturing uses. Pursuant to SCAQMD Rule 402, these sources shall include a quantitative assessment of potential odors and meteorological conditions. The project does not include any such uses or activities that would result in potentially significant odor impacts. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the proposed project. However, these odors would be limited to the construction period and would disperse quickly; therefore, these odors would not be considered a significant impact. Potential operational airborne odors could result from the trash receptacles outside of the new residences. However, the receptacles would have lids and would be emptied on a regular basis before potentially substantial odors would have a chance to develop. Therefore, there would be no significant adverse air quality impact with respect to objectionable odors that could affect a substantial number of people. No other emissions adversely affecting a substantial number of people would result from construction or operation of the proposed project. Therefore, no significant impacts related to other emissions, such as those leading to odors, adversely affecting a substantial number of people would result from the proposed project, and no mitigation would be required.

Existing Plans, Programs, or Policies

PPP AQ-1: The project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 403, which includes the following:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered, with complete coverage of disturbed areas, at least 3 times daily during dry weather; preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are reduced to 15 miles per hour or less.

PPP AQ-2: The project is required to comply with the provisions of South Coast Air Quality Management District Rule (SCAQMD) Rule 1113. Only "Low-Volatile Organic Compounds" paints (no more than 50 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications shall be used.

PPP AQ-3: The project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 402. The project shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. In addition, the construction manager will provide awareness training of Valley Fever to workers and other onsite personnel.

Mitigation Measures

None.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated. The project site is heavily disturbed, having been previously graded and developed with educational uses. In its existing condition, the project site contains a variety of ornamental trees and ornamental landscaping dispersed throughout the project site, as well as adjacent to property boundaries. As part of the project, existing trees throughout the project site would be removed and replaced with new trees and ornamental vegetation.

As discussed above, the proposed project site is fully developed, and no special-status plants, invertebrates, fish, reptiles, amphibians, or mammals have the potential to occur. The project site contains no natural nesting or foraging habitat for special-status birds. However, some common urban-adapted birds such as mourning dove (Zenaida macroura), black phoebe (Sayornis nigricans), and house finch (Carpodacus mexicanus) have the potential to nest within ornamental trees within the project site. Many of these trees would be removed during construction. Therefore, the proposed project has the potential to impact active bird nests if vegetation and trees are removed during the nesting season.

Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA) (United States Code Title 33, Section 703 et seq.; see also Code of Federal Regulations Title 50, Part 10) and Section 3503 of the California Fish and Game Code. Therefore, implementation of the proposed project would be subject to the provisions of the MBTA, which prohibits disturbing or destroying active nests. Project implementation must be accomplished in a manner that avoids impacts to active nests during the breeding season. As a standard condition of approval, if the project's construction occurs between February 1 and September 15, a qualified biologist would conduct a nesting bird survey prior to ground- and/or vegetation-disturbing activities to confirm the absence of nesting birds. Avoidance of impacts can be accomplished through a variety of means, including establishing suitable buffers around any active nests. Compliance with MM BIO-1, which requires project compliance with provisions of the MBTA, would ensure impacts to nesting birds would be less than significant.

Furthermore, the project site would remain fully developed and no impacts to special-status biological resources would occur during construction and operation. As previously discussed, the project would install new landscaping and ornamental trees throughout the project site. Because the site is in an urbanized area, once new landscaping is established, urban-adapted birds are expected to utilize the new landscaping and ornamental trees similar to pre-project conditions.

Overall, the proposed project would not impact any sensitive or special-status species. In addition, there are no known sensitive species or habitats on site as identified in local/regional plans, policies, or regulations, or by the CDFW or USFWS. Therefore, to prevent any impacts to the species described above, implementation of MM BIO-1 would ensure impacts to nesting birds would be less than significant.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS? ☐ ☐ ☐ ☒

No Impact. In its existing condition, the project site is heavily disturbed, graded, and fully developed with educational uses. The project site contains a variety of ornamental trees and ornamental landscaping dispersed throughout the site and adjacent to property boundaries. According to the National Wetlands Inventory managed by the USFWS, the project site does not contain riparian habitat (USFWS 2019). There are no riparian habitats or other sensitive natural communities as identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, development of the proposed project is not anticipated to have an impact on any riparian habitat or other sensitive natural community and no mitigation would be required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means? ☐ ☐ ☐ ☒

No Impact. As previously discussed, the project site is heavily disturbed, graded, and fully developed. According to the National Wetlands Inventory managed by the USFWS, the project site does not contain federally protected wetlands (USFWS 2019). The proposed project would introduce new stormwater treatment features, however, given the purpose of the proposed and existing storm drain system and water quality devices, which would be considered an efficient wastewater treatment system designed to meet the requirements of the Clean Water Act (CWA) and Los Angeles County, these artificial drainage channels and basins would not be considered jurisdictional waters of the United States as stated in 33 Code of Federal Regulations (CFR) 328.3:(b)(1) "Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA are not waters of the United States." In addition, the United States Army Corps of Engineers (Corps) would not regulate these drainage channels and basins as federally protected wetlands per Section 404 of the Clean Water Act (CWA). As such, the project would not impact State-protected wetlands as defined by the State Wetlands Procedures. Thus, with no state or federally protected wetlands on site, development of the proposed project would have no impact on State or federally protected wetlands and no mitigation would be required.

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

Less than Significant Impact with Mitigation Incorporated. As previously discussed, the project site is heavily disturbed and graded. In its existing condition, the project site contains a variety of trees and

ornamental landscaping. Because urbanized residential development, including residences on Grovedale Drive and Richvale Drive surround the site, the proposed project site does not function as a wildlife movement corridor. Any species that may inhabit the project site are either able to fly in or navigate on the ground through long stretches of urban development. Further, no portion of the project site contains an open body of water that serves as natural habitat in which fish could exist. Therefore, the project site does not contain any native resident or migratory fish, wildlife species, or wildlife corridors.

As discussed in Response 4.4(a) above, in the existing condition, trees that are located on the existing project site could provide habitat for nesting migratory birds. Many of these trees would be removed during construction. Therefore, the proposed project has the potential to impact active bird nests if vegetation and trees are removed during the nesting season. Project compliance with MM BIO-1, which requires compliance with provisions of the MBTA, would ensure impacts to nesting birds would be less than significant.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua, southern California black walnut, etc.)? ☐ ☐ ☐ ☒

No Impact. No oak woodlands or other unique native trees exist within the project site. To verify the presence of oak trees on the project site, a qualified arborist conducted a tree survey, provided as Appendix B, on March 9, 2019. The results of the survey indicated that no protected oak trees were identified either on the site or within 50 feet of the property boundaries. As a result, impacts to oak woodlands or unique native trees would not occur with implementation of the proposed project.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)? ☐ ☐ ☐ ☒

No Impact. Chapter 22.174 of the County's Code regulates oak tree permits. As discussed in the County Code, the intent of an Oak Tree Permit is to maintain and enhance the general health, safety and welfare of oak trees, which assist in counteracting air pollution, minimizing soil erosion, and other related environmental damage. The Oak Tree Permit is also intended to preserve and enhance property values by conserving and adding to the distinctive and unique aesthetic character of many areas of the County in which oak trees are indigenous. The stated objective of the Oak Tree Permit is to preserve and maintain healthy oak trees in the development process.

To verify the presence of oak trees on the project site, a qualified arborist conducted a tree survey, provided as Appendix B, on March 9, 2019. The results of the survey indicated that no protected oak trees were

identified either on the site or within 50 feet of the property boundaries. Therefore, the proposed project would not impact the County's oak tree ordinance.

Overall, the proposed project would include the removal of ornamental trees and shrubs within the project site. However, none of the existing trees and shrubs on site have been determined to be significant biological resources. Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources (e.g., a tree preservation policy or ordinance). Therefore, no impacts would occur with implementation of the proposed project.

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

No Impact. As previously discussed, the project site is heavily disturbed and graded. In its existing condition, the project site contains a variety of trees and ornamental landscaping. The project site is not within the study area of an adopted Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, implementation of the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

MM BIO-1: **Migratory Bird Treaty Act**. In the event that vegetation and tree removal should occur between February 1st and August 31st, the Project Applicant (or its contractor) shall retain a qualified biologist to conduct a nesting bird survey no more than 3 days prior to commencement of construction activities. The nesting survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related construction activities such as noise, human activity, and dust. If active nesting of birds is observed within 100 feet of the designated construction area prior to construction, the biologist shall establish suitable buffers around the active nests (e.g., as much as 500 feet for raptors and 300 feet for nonraptors [subject to the recommendations of the qualified biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Prior to commencement of grading activities and issuance of any building permits, the Director of the Community Development Department, or designee, shall verify that all Project grading and construction plans include specific notes regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

5. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines § 15064.5?	☐	☐	☒	☐

Less than Significant Impact. According to the State CEQA Guidelines, a historical resource is defined as something that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by the project's Lead Agency. A Historical Resources Assessment, prepared by Daly & Associates, has been performed to assess the project site for significant historical resources.

Furthermore, the California Register of Historical Resources defines a "historical resource" as a resource that meets one or more of the following criteria: (1) associated with events that have made a significant contribution to the broad patterns or local or regional history of the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In its existing setting, the project site is heavily disturbed, graded, and consists of a the Carden School campus, which provides four permanent buildings: two classroom buildings, an administration building, and a multi-purpose building, as well as a number of portable classroom structures. The school buildings were designed by Daniel, Mann, Johnson & Mendenhall, a large international firm that had an office in Los Angeles as well as other cities in the US and Europe. Although the firm is credited with many buildings that contributed to the architecture of the 1960s, a small school project like the Carden School was not an architecturally significant project. The baby boom after World War II caused hundreds of elementary schools to be erected across Southern California in the 1950s and 1960s. Therefore, the school buildings do not present a notable contribution to the firms' portfolio of important works (Daly & Associates 2019).

Additionally, a records search for the project site of the California Historical Resources Information System (CHRIS) was conducted on November 7, 2019 at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton (refer to Appendix C). The SCCIC houses the pertinent archaeological and historic site and survey information necessary to determine whether cultural resources are known to exist within the project area. The cultural resources search identified thirteen cultural resources investigations and one paleontological resources investigation within a 1-mile radius of the project area. None of these studies took place within the project area. No cultural resources have been recorded within a 1-mile radius of the project area. A review of historical aerial photographs and topographic maps indicate that structures associated with the current Carden Academy of Whittier (Carden Academy) have been established within the project area since late 1960s. An architectural historian will be assessing the buildings and their findings will be provided in a separate report (MCC 2019).

As determined in the Historical Resources Assessment (Appendix D), implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines, as there are no eligible historical resources on the project site. Therefore, impacts would be less than significant, and no mitigation would be required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5? ☐ ☐ ☐ ☒

No Impact. The soils on the project site are nonnative and have been disturbed previously during excavation and construction of the site's existing educational uses. As discussed in Response 5(a), according to the results from the SCCIC records search, the cultural resources search identified thirteen cultural resources investigations and one paleontological resources investigation within a 1-mile radius of the project area. None of these studies took place within the project area.

A pedestrian survey of the project area was conducted on October 31, 2019 by MCC Archaeologist and Cross-Trained Paleontologist Natalie Adame. During fieldwork, access was restricted, and the majority of the project area was not accessible, yet the grounds were observed from accessible areas and found to be completely developed into the school grounds. The portions of the project area that were surveyed had ground visibility that ranged from poor (<20%) to Fair (50%) due to wood chips and grass covering the ground. No cultural or paleontological resources were identified during the survey.

While the project area is well studied, there is a general lack of cultural resources recorded within the vicinity of the project area. Therefore, the potential for encountering resources is low. In addition, the previously developed nature of the project area includes extensive ground disturbance, site preparation, construction of the existing school campus, deposit of fill soil to an unknown depth, and landscaping/hardscaping. These activities have greatly impacted native sediment and deposits and have likely eradicated any near-surface or surface manifestation of archaeological deposits that may have been located in this area. At a minimum, if resources were discovered, they are likely to have been displaced from the original context and no longer hold the data potential or integrity required to meet the criteria of significant cultural resources as per CEQA. The implementation of an inadvertent discovery protocol for potential cultural resources encountered during project implementation, as implemented in MM TR-1, is an adequate level of protection for cultural resources within the project area, and will allow for immediate stoppage of work if resources are discovered during ground disturbing activities.

Based on the results of the cultural resources records search and survey, the proposed project area is considered to have low sensitivity for presence of prehistoric or historical archaeological deposits and it is unlikely that crews will encounter significant cultural resources during project development (MCC 2019). Therefore, the project would not cause a substantial change in the significance of an archaeological resource as defined in State CEQA Guidelines Section 15064.5. No mitigation would be required.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☐ ☒ ☐

Less than Significant Impact. As discussed previously, the proposed project is located on a previously disturbed site within an urbanized residential area of unincorporated Los Angeles County. As discussed previously in Section 4.5, Cultural Resources, Erika McMullin, MCC Archaeologist, conducted a search of the

California Historical Resource Information System (CHRIS) on November 7, 2019 at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton. The cultural resources search identified thirteen cultural resources investigations and one paleontological resources investigation within a 1-mile radius of the project area. None of these studies took place within the project area. No cultural resources have been recorded within a 1-mile radius of the project area.

No paleontological resources or unique geologic features are known to exist within the project site. The project site is comprised of younger Quaternary Alluvium in the north and older Quaternary Alluvium in the south. Both the younger and older Quaternary Alluvium deposits are derived from alluvial fan deposits from the Puente Hills, northeast of the project area from La Mirada Creek, which flows south. Younger Quaternary Alluvium deposits are not typical of significant vertebrate fossils, although older Quaternary Alluvium deposits in shallow depth may contain significant fossil vertebrate. No previously recorded fossil localities are located within the project area; however, there are nearby localities from similar sedimentary deposits found within the proposed project area either at the surface or at depth (MCC 2019). Therefore, impacts towards a unique paleontological resource or site or unique geologic feature would be less than significant, and no mitigation would be required.

d) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☐ ☐ ☒

No Impact. There are no known human remains interred on the project site. The project site is not part of a formal cemetery and is not known to have been used for disposal of human remains. In addition, the ground has been previously disturbed by construction of existing land uses. Thus, human remains are not expected to be encountered during construction of the proposed project. In addition, existing state regulations (California Health and Safety Code Section 7050.5) requires that in the unanticipated event of discovery or recognition of any human remains, there shall be no further excavation until the coroner has made recommendations concerning the treatment and disposition of the human remains to the person responsible. If the coroner determines that the remains are not subject to his or her authority and has reason to believe that they are those of a Native American, he or she shall contact the Native American Heritage Commission within 24 hours. Implementation of the proposed project would comply with provisions of state law regarding discovery of human remains, and impacts relating to the disturbance of human remains would be less than significant. No mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

6. ENERGY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Less Than Significant Impact.

Construction
During construction of the proposed project would consume energy in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project sites, construction worker travel to and from the project site, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction activities related to the proposed single family residences and the associated infrastructure is not expected to result in demand for fuel greater on a per-unit-of-development basis than other development projects in Southern California. The Summary of CalEEMod Model Runs and Output for the Carden School Residential Project (included as Appendix A) details the total project construction fuel usage over the 26-month construction period, as shown in Table E-1 below.

Table E-1: Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	2,710	1,874
Off-Road Construction Equipment	16,621	0
Total Construction Fuel Usage	**19,331**	**1,874**

Source: CalEEMod 2019 (Appendix A)

Construction of the project would result in fuel consumption from the use of construction tools and equipment, vendor and haul truck trips, and vehicle trips generated from construction workers traveling to and from the site. Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a typical condition of the project. In addition, there are no unusual project characteristics that would cause the use of construction

equipment that would be less energy efficient compared with other similar construction sites in other parts of the State. Therefore, construction-related fuel consumption by the project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region, and impacts would be less than significant.

Operation

Once operational, the project would generate demand for electricity, natural gas, as well as gasoline for fuel tanks. Operational use of energy includes the heating, cooling, and lighting of the building, water heating, operation of electrical systems and plug-in appliances, parking lot and outdoor lighting, and the transport of electricity, natural gas, and water to the areas where they would be consumed. This use of energy is typical for urban development, and no operational activities or land uses would occur that would result in extraordinary energy consumption.

The State of California provides a minimum standard for building design and construction standards through Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CBC is updated every 3 years, and the current 2016 CBC went into effect in January 2017. Compliance with Title 24 is mandatory at the time new building permits are issued by local governments. The California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards (also referred to as the California Green Building Standards Code, or CALGreen) in 2010 as part of the State's efforts to reduce GHG emissions and reducing energy consumption from residential and nonresidential buildings. CALGreen code covers the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. The project would comply with the CALGreen Code requirements and Title 24 efficiency standards, which would further improve the energy efficiency of the project. The Summary of CalEEMod Model Runs and Output for the Carden School Residential Project (included as Appendix A) details the project's total annual operational energy requirements, as shown in Table E-2 below.

Table E-2: Project Annual Operational Energy Requirements

Operational Source (value per year)		
	Annual VMT	Gallons of Gasoline Fuel
Transportation – Project	926,260	34,306
Transportation – Existing	1,011,760	37,473
Transportation - Net	(85,500)	(3,167)

	Kilowatt-Hours
Electricity – Project	238,040
Electricity – Existing	50,831
Electricity - Net	187,209

	Thousands British Thermal Units
Natural Gas – Project	796,763
Natural Gas – Existing	98,986
Natural Gas – Net	697,777

Source: CalEEMod 2019 (Appendix A)

Furthermore, according to CEQA Guidelines Appendix F, the goal of conserving energy implies the wise and efficient use of energy, including decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The project would comply with all of the energy efficiency requirements under Title 24 and all applicable county business and energy codes ordinances. As a result, the operation of the project would not result in inefficient, wasteful, or unnecessary energy use compared with other similar residential projects in the region, and impacts would be less than significant.

In summary, construction and operation of the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Consumption of energy resources as a result of implementation of the proposed project would be comparable to other residential developments in the County. Therefore, impacts would be less than significant, and no mitigation would be required.

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

Less than Significant Impact. Refer to Response 4.6(a), above. As discussed above, the project would be required to comply with CALGreen Code, which includes provisions related to insulation and design aimed at minimizing energy consumption. The proposed project would be consistent with applicable plans related to renewable energy and energy efficiency, including the implementation of solar energy. Therefore, impacts would be less than significant, and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒

No Impact. In 1972, the Alquist-Priolo Special Studies Zones Act was signed into law and renamed the Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) in 1994. The primary purpose of the Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy access the trace of an active fault. The A-P Act requires the State Geologist (Chief of the California Geology Survey) to delineate "Earthquake Fault Zones" along with faults that are "sufficiently active" and "well-defined." The boundary of an "Earthquake Fault Zone" is generally about 500 feet from major active faults and 200 to 300 feet from well-defined minor faults. The A-P Act dictates that cities and counties withhold development permits for sites within an Alquist-Priolo Earthquake Zone until geologic investigations demonstrate that the site zones are not threatened by surface displacements from future faulting.

As described in the Geotechnical Due Diligence and Preliminary Infiltration Study (Appendix E) of the project site, the project site is not located in an Alquist-Priolo Earthquake Fault Zone. Therefore, development of this project would not directly or indirectly cause potential risk of loss, injury, or death involving the rupture of a known earthquake fault. No impact would occur.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

Less Than Significant Impact. The project site is located within a seismically active region of Southern California. Thus, moderate to strong ground shaking can be expected at the site. The amount of motion can vary depending upon the distance to the fault, the magnitude of the earthquake, and the local geology. Greater movement can be expected at sites located closer to an earthquake epicenter, especially those that consist of poorly consolidated material such as alluvium, and in response to an earthquake of great magnitude.

Structures built within the County are required to be built in compliance with the California Building Code (CBC [California Code of Regulations, Title 24, Part 2]), included in the County's Code as Title 26. Compliance with the CBC would include the incorporation of 1) seismic safety features to minimize the potential for significant effects as a result of earthquakes; 2) proper building footings and foundations; and 3) construction of the building structures so that it would withstand the effects of strong ground shaking. Compliance with County Code Title 26 would be implemented through the development permitting and plan check process.

Because the proposed project would be constructed in compliance with the CBC, the proposed project would result in a less than significant impact related to strong seismic ground shaking and no additional mitigation is required.

iii) Seismic-related ground failure, including liquefaction and lateral spreading?	☐	☐	☒	☐

Less Than Significant Impact. Soil liquefaction is a phenomenon in which saturated, cohesionless soils layers, located within approximately 50 feet of the ground surface, lose strength due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. During the loss of stress, the soil acquires "mobility" sufficient to permit both horizontal and vertical movements. Soil properties and soil conditions such as type, age, texture, color, and consistency, along with historical depths to ground water are used to identify, characterize, and correlate liquefaction susceptible soils.

Soils that are most susceptible to liquefaction are clean, loose, saturated, and uniformly graded fine-grained sands that lie below the groundwater table within approximately 50 feet below ground surface. Lateral spreading is a form of seismic ground failure due to liquefaction in a subsurface layer.

According to the Geotechnical Due Diligence and Preliminary Infiltration Study for the proposed project, the depth of groundwater is anticipated to be at a depth of 17 to 32 feet, therefore, the potential for liquefaction to occur is low. In addition, the site is not located within an area that has not been mapped by the California Geological Survey (CGS) for liquefaction (GeoTek 2018). Therefore, the liquefaction potential for the site is low and impacts related to seismically related ground failure and liquefaction would be less than significant and no mitigation would be required.

iv) Landslides?	☐	☐	☐	☒

No Impact. Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquakes induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits.

As described above, the project site is located in a seismically active region subject to strong ground shaking. However, the site is located in a relatively flat and developed area. Therefore, the project would not cause potential substantial adverse effects related to slope instability or seismically induced landslides.

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

Less Than Significant Impact. In its existing condition, the project site is developed with the Carden School campus, which includes various permanent and modular structures, paved parking and play areas, and landscaping. The project would involve the demolition of four single-story structures, additional single-story modular structures, and associated paved areas on the project site. During construction activities, soil would be exposed and there would be an increased potential for soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate.

As discussed in further detail in Section 4.10, Hydrology and Water Quality, the proposed project would increase the impervious surface area on the project site compared to existing conditions. This would change the volume of stormwater runoff generated from the project site. However, since the project site is relatively flat with limited elevation changes, soil erosion can be controlled via implementation of standard erosion

control practices. Furthermore, the exposure of soils during construction would be short-term and subject to requirements established by the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity, which would be issued by the Los Angeles Regional Water Quality Control Board (LARWQCB). Once developed, the project's implementation would not increase the volume of runoff from the project site because the proposed project would include new drainage infrastructure designed to handle the increase in stormwater runoff. Therefore, direct and indirect impacts related to erosion and loss of topsoil would be less than significant and no mitigation would be required.

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

Less Than Significant Impact. As discussed previously, the project site is relatively flat with limited elevation changes and does not contain nor is adjacent to any significant slope or hillside area. The project would not create slopes. Thus, on or off-site landslides would not occur from implementation of the project.

Lateral spreading, a phenomenon associated with seismically induced soil liquefaction, is a display of lateral displacement of soils due to inertial motion and lack of lateral support during or post liquefaction. It is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as drainage or stream channel. As discussed in the Geotechnical Due Diligence and Preliminary Infiltration Study, based on the results of the field exploration, as well as review of site area geomorphology and geology, groundwater is not anticipated to adversely affect the proposed improvements (GeoTek 2018). Thus, the soils are not susceptible to lateral spreading and impacts related to liquefaction and lateral spreading would be less than significant.

Differential settlement or subsidence could occur if buildings or other improvements are built on low-strength foundation materials (including imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and fill). Although differential settlement generally occurs at a rate that its effects are not dangerous to inhabitants, it can cause building damage over time. Project design and implementation would comply with the recommendations of the required Geotechnical Due Diligence and Preliminary Infiltration Study prepared for the project site, which would ensure impacts related to settlement and subsidence would be less than significant.

In summary, with implementation of the recommendations in the project's Geotechnical Due Diligence and Preliminary Infiltration Study, potentially significant impacts related to unstable soils or geologic units that would become unstable as a result of the project, resulting in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse, would be reduced to a less than significant level, and no mitigation would be required.

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

Less Than Significant Impact with Mitigation Incorporated. Expansive soils contain certain types of clay minerals that shrink or well as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experiences,

such as Southern California, have a higher potential of expansive soils than areas with higher rainfall and more constant soil moisture.

The Geotechnical Due Diligence and Preliminary Infiltration Study performed expansion index testing on soils obtained during our subsurface exploration. The soils were tested for expansion potential in accordance with ASTM D 4829, which is summarized in Appendix B of the Geotechnical Due Diligence and Preliminary Infiltration Study (GeoTek 2018). Soils tested were classified as having a "medium" (51<EI<90) expansion potential when tested in general accordance with ASTM D 4829. Therefore, to ensure that no adverse impacts would occur due to the potential of expansive soils on the project site, MM GEO-1 would be implemented, which requires compliance with the site specific recommendations of the Geotechnical Due Diligence and Preliminary Infiltration Study prepared by GeoTek, Inc. Thus, with implementation of MM GEO-1, impacts related to expansive soils would be less than significant..

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

No Impact. The project would not use septic tanks or alternative methods for disposal of wastewater into subsurface soils. Furthermore, the proposed project would connect to existing public wastewater infrastructure. Therefore, the project would not result in any impacts related to septic tanks or alternative wastewater disposal methods, and no mitigation would be required.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Ch.22.104)?	☐	☐	☐	☒

No Impact. The project site is not located within a Hillside Management Area or within an area that is subject to hillside design standards. The project site is flat land that is not in the vicinity of a hillside. As a result, the proposed project would not conflict with the Hillside Management Area Ordinance or any hillside standards, and no impacts would occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

MM GEO-1: The Project Applicant shall implement all recommendations in the approved Geotechnical Due Diligence and Preliminary Infiltration Study prepared for the project site by GeoTek, Inc. and dated April 20, 2018 during site preparation, grading, and construction, and compliance with the approved Geotechnical Investigation shall be verified in the field by a qualified representative. The Project Applicant shall demonstrate to the County that all or equivalent recommendations in the Geotechnical Due Diligence and Preliminary Infiltration Study, or any updates to those reports have been incorporated into the project's design and grading plans.

8. GREENHOUSE GAS EMISSIONS

Technical Background

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHGs), play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO2), methane (CH4), ozone (O3), water vapor, nitrous oxide (N2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses.

Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride[2]. Emissions of CO2 and N2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO2, where CO2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. These regulations require the use of alternative energy, such as solar power. The California Energy Commission passed a measure as an update to the state's 2019 Title 24, Part 6, Building Energy Efficiency Standards, which requires that all new homes under three stories high install solar panels starting January 1, 2020, and that solar systems must be sized to net out the annual kilowatt-hour energy usage of the dwelling[3].. All new residential projects under three stories, including the proposed project, are required to comply with these new standards.

GHG Thresholds

The analysis methodologies from SCAQMD are used in evaluating potential impacts related to GHG from implementation of the proposed project. SCAQMD does not have approved thresholds; however, does have thresholds that provides a tiered approach to evaluate GHG impacts. For this analysis the 3,000 MTCO2e per year threshold has been utilized.

In addition, SCAQMD methodology for project's construction are to average them over 30-years and then add them to the project's operational emissions to determine if the project would exceed the screening values listed above.

	Potentially Significant Impact	***Less Than Significant Impact with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

[2] Section 38505(g), Health and Safety Code; and Section 21083.05, Public Resources Code
[3] 2019 California Energy Code, Title 24, Part 6, Section 110.10(b), https://codes.iccsafe.org/content/CAEC2019/subchapter-2-all-occupancies-mandatory-requirements-for-the-manufacture-construction-and-installation-of-systems-equipment-and-building-components

Less Than Significant Impact. Global climate change describes alterations in weather features (e.g., temperature, wind patterns, precipitation, and storms) that occur across the Earth as a whole. Climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

The principal GHGs of concern contributing to the greenhouse effect are CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride[4]. GHGs are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal.

Construction

GHG emissions associated with project construction would occur over the short term and would consist primarily of emissions from equipment exhaust. Long-term regional emissions would also be associated with new vehicular trips and stationary-source emissions (i.e., natural gas used for heating and electricity usage for lighting). The calculations presented below include construction emissions in terms of annual CO_2e GHG emissions from increased energy consumption, water usage, and solid waste disposal, as well as estimated GHG emissions from vehicular traffic that would result from implementation of the proposed project.

As discussed previously, during construction of the proposed project, GHGs would be emitted through the operation of construction equipment, as well as emissions from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Table GHG-1 presents the annual construction emissions based on the CalEEMod emissions estimates.

As shown on Table GHG-1, the project would generate a total of approximately 15 $MTCO_2e$ per year from construction emissions amortized over 30 years and added to the operational emissions per SCAQMD methodology.

Table GHG-1: Project Construction GHG Emissions

Activity	Annual GHG Emissions ($MTCO_2e$)
2020	149
2021	292
Total Emissions	441
Total Emissions Amortized Over 30 Years	**15**

Source: CalEEMod 2019 (Appendix A)

Results indicate that construction would generate approximately 441 $MTCO_2e$ per year. Per SCAQMD guidance, due to the long-term nature of the GHGs in the atmosphere, instead of determining the significance

[4] Section 38505(g), Health and Safety Code; and Section 21083.05, Public Resources Code

of construction emissions alone, the total construction emissions are amortized over 30 years (an estimate of the life of the project) and included in the operations analysis. To amortize the emissions over the life of the project, SCAQMD recommends calculating the total GHG emissions for the construction activities and dividing those totals by a 30-year project life. As such, construction emissions were amortized over a 30-year period.

Operation

During operations, the project would generate long-term GHG emissions from vehicular trips; water, natural gas, and electricity consumption; and solid waste generation. Mobile-source emissions of GHGs would include project generated vehicle trips associated with resident trips to and from the project site. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for cooking and heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed use. Table GHG-2 lists the anticipated operational GHG emissions for the project.

Area sources include architectural coatings, consumer products, and landscaping. Energy sources include natural gas consumption for heating and cooking. As shown in Table GHG-2, the proposed

project would generate approximately 478 $MTCO_2e$/yr. The GHG emissions generated by the existing uses on site are subtracted from the proposed project-related GHG emissions for purposes of this analysis. The combined construction and operation of the project would result in a total increase in GHG emissions of 493 $MTCO_2e$ per year, which would not exceed the significance threshold of 3,000 $MTCO_2e$ per year. Overall, the total net GHG emissions would be lowered to 163 $MTCO_2e$/yr.

Table GHG-2: Project Net Operational GHG Emissions

Source	**Annual MT CO_2e**
Area	0
Energy	119
Mobile	327
Waste	17
Water	14
Total	**478**
Construction (amortized over 30 years)	**15**
Construction and Operation	**493**
Existing Emissions	**390**
Net Emissions	**163**
Threshold	3,000
Exceed Threshold?	**No**

Notes: MT CO_2e = metric tons of carbon dioxide equivalents

Source: CalEEMod 2019 (Appendix A)

Because the project's GHG emissions are greater than the existing operational GHG emissions, the proposed project is required to implement measures from the Sustainability Action Plan. The proposed project's implementation of the Sustainability Action Plan measures (as addressed in in Response 4.8(b) below) would reduce GHG emissions and would not impede or interfere with achieving the State's emission reduction objectives in AB 32 and SB 32. Overall, the project would not result in an exceedance of the SCAQMD threshold. Therefore, impacts would be less than significant, and no mitigation would be required.

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

Less than Significant Impact. In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap, which was phased in starting in 2012. Therefore, as the proposed project meets the current interim emissions targets/thresholds established by SCAQMD, it would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030, as mandated by the State. Furthermore, all of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the State level, and the proposed project would be required to comply with these regulations as they come into effect.

The County's General Plan Air Quality Element (2015b) also contains goals and policies regarding GHG emissions. The Air Quality Element's GHG emission targets and goals are based on meeting the goals of the Los Angeles County Community Climate Action Plan (CCAP), which provides policy guidance for reducing GHG emissions generated within the unincorporated areas. The CCAP ensures that the County would be able to reduce its emissions to 1990 levels by 2020. The CCAP includes an emissions inventory for the unincorporated areas and an analysis of the reduction needed to achieve County goals. It analyzes specific actions that result in reduced emissions and lays out a plan for their use and implementation. It also provides a mechanism for tracking and evaluating the County's progress in achieving its climate change goals. The CCAP supports sustainable design and energy efficiency, as well as active and multi-modal transportation strategies to reduce VMT.

The proposed project would comply with applicable GHG reduction measures in the County's General Plan Air Quality Element. With implementation of the reduction measures in the County's General Plan Air Quality Element, the project would be consistent with the goals, policies, and implementation programs contained in the adopted Los Angeles County Community Climate Action Plan (CCAP). Therefore, the proposed project would be consistent and not conflict with applicable County policies or regulations, or the CCAP adopted for the purpose of reducing the emissions of GHG emissions. Therefore, GHG impacts are considered less than significant, and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less Than Significant Impact. A hazardous material is defined as any material that, due to its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that regulatory agencies believe would be injurious to the health and safety of persons or harmful to the environment if released into the home, workplace, or environment. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment.

Construction
Construction activities associated with the proposed project would use a limited amount of hazardous and flammable substances/oils during heavy equipment operation for site excavation, grading, and construction. The amount of hazardous chemicals present during construction is limited and would be contained in compliance with existing government regulations. The potential for the release of hazardous materials during project construction is low, and even if a release were to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of these materials associated with construction vehicles.

Operation
The project involves construction of 29 new single-family residences, drainage and utility infrastructure, and a new public road ("A" Court). Residential uses typically do not present a hazard associated with the accidental release of hazardous substances into the environment because residents are not anticipated to use, store, dispose, or transport large volumes of hazardous materials. Hazardous substances associated with residential uses are typically limited in both amount and use. Project operation would involve the use of potentially hazardous materials (e.g., solvents, cleaning agents, paints, fertilizers, and pesticides) typical of residential uses that, when used correctly and in compliance with existing laws and regulations, would not result in a significant hazard to people in the vicinity of the proposed project.

No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site. Typical use of household hazardous materials (e.g., pesticides, fertilizer, solvents, cleaning products, and paints) would not generally result in the transport, disposal, or release of hazardous materials in an amount that would create a significant hazard to the public or environment. Therefore, impacts associated with the disposal of hazardous materials and/or the potential release of hazardous materials that could occur with the implementation of the proposed project would be less than significant, and no mitigation would be required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset	☐	☒	☐	☐

and accident conditions involving the release of hazardous materials or waste into the environment?

Less Than Significant Impact with Mitigation Incorporated. A Phase I Environmental Assessment Report (ESA) was prepared for 11537 Grovedale Drive for the entire project site. The purpose of the Phase I ESA was to identify, to the extent feasible and pursuant to the processes prescribed in ASTM International (ASTM) E1527-13, recognized environmental conditions (RECs), historical RECs (HRECs), or controlled RECs (CRECs) in connection with the project site (LA 2018).

RECs are defined, according to ASTM E1527-13 as: the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not RECs (ASTM 1527-13, 2013). Per ASTM 1527-13, a de minimis condition is defined as "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." HRECs are defined, according to ASTM E1527-13 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 meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. CRECs are defined, according to ASTM E1527-13 as: a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (LA 2018).

According to the Phase I ESA, an oil well was historically present in the eastern central portion of the project site. The oil well was drilled to a total depth of 8,760 feet in 1954 and was reportedly in production from 1954 to 1956. Well records indicate that the well was abandoned by back filling the hole with concrete and sand. The final concrete plug was placed from 14 feet to 4 feet below ground surface (bgs), and a steel plate was welded onto the top of the casing. The historical presence of an oil well is considered a REC. Additionally, the Phase I ESA concluded that the historical use for agricultural purposes from the 1920s to 1950s has the potential to impact shallow soils at the site with organochlorine pesticides (OCPs). Furthermore, based on the age of the structures, there is the potential for lead and termiticide impacts in shallow soils surrounding the structures (LA 2018).

To address the findings of the Phase I ESA, the California Department of Conservation Division of Oil, Gas, and Geothermal Resources' (DOGGR), as the authority set forth in Division 3 of the Public Resources Code (PRC) and Title 14 of the California Code of Regulations (CCR), has received and reviewed the proposed project. PRC § 3208.1 establishes well reabandonment responsibility when a previously plugged and abandoned well may be impacted by planned property development or construction activities. According to DOGGR, the well located on the project site is not abandoned to current Division requirements as prescribed by law, and based upon information provided, is projected to be built over or have future access impeded. The Division expects this well to be abandoned or reabandoned in compliance with current Division requirements prior to development (Appendix K). The well is anticipated to be located on Lot 18 and the ability to develop the lot with a single-family dwelling would be contingent on the location of the oil well, as discussed further in Section 4.9 of this IS/MND.

To mitigate any potential impacts from the existing well, mitigation measure MM HAZ-1 requires that prior to issuance of grading permits, the Property Owner/Developer shall submit site development plans to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) for

Construction Site Plan review. Property Owner/Developer shall implement any actions recommended by DOGGR, including but not limited to, well abandonment to current standards, venting, leak testing and setbacks. Documentation of compliance shall be provided to the County of Los Angeles for approval.

As discussed, the Phase I identified RECs related to organochlorine pesticides (OCPs) from historical agricultural use, termiticides and/or lead from historical application around structures, and potential petroleum hydrocarbon impacts to soil and soil gas from a historical oil well. In addition, caulk containing potentially harmful PCBs was used in many buildings in the 1950s through the 1970s (EPA.gov). However, the site is occupied by a school and is not accessible for in-depth investigation. As a result, based on the findings of the Phase I ESA, prior to issuance of demolition permits, a Phase II ESA is required by mitigation measure MM HAZ-2 in order to address the following items:

- Soils related to historical agricultural use for the presence of organochlorine pesticides (OCPs) and arsenic;
- Soils in areas surrounding building foundations for the presence of termiticides (OCPs) and lead;
- Geophysical survey to determine the exact location of the abandoned oil well and to identify areas of soil disturbance where drill cuttings or well wastewater may have been discharged.
- A soil and soil vapor investigation to determine if elevated levels of petroleum hydrocarbons and/or metals are present, as well as methane, hydrogen sulfide, or volatile organic compounds
- The presence of old caulking materials or applications which may contain polychlorinated biphenyls (PCBs) (EPA.gov)

The Property Owner/Developer shall conduct a Phase II ESA and submit evidence that any detected constituents detected are in concentrations below the maximum allowable concentration levels for residential development per California Department of Toxic Substances Control (DTSC) Residential Screening Level thresholds and do not pose a significant health risks to future residents. Contaminated soils shall be remediated or removed from the site. If any testing sites reveal contamination in excess of the DTSC Residential Screening Level thresholds, measures to minimize intrusion of pollutants into residences shall be applied as determined by the hazardous materials specialist.

To address construction period testing, MM HAZ-3 requires that construction at the project site shall be conducted under a project-specific Construction Risk Management Plan (CRMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified and to address the possibility of encountering unknown contamination or hazards in the subsurface. The CRMP shall be submitted to the County for review and approval prior to the issuance of construction and demolition permits. This measure would reduce the hazards and hazardous materials impact to a less-than-significant level

Finally, PPP HAZ-1 (SCAQMD Rule 1166 Volatile Organic Compounds) and HAZ-2 (SCAQMD Rule 1466, Soils with Toxic Air Contaminants) ensure existing regulations related to VOCs and toxic air contaminates during construction are implemented. Further, PPP HAZ-3 and HAZ-4 ensure existing regulations related to asbestos-containing materials (ACM) and/or lead-based paint (LBP) are implemented, if either is present. Therefore, with implementation of PPP HAZ 1 through HAZ-4 and MM HAZ-1 through MM HAZ-3, the proposed project would have less than significant impacts towards the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses? ☐ ☐ ☒ ☐

Less Than Significant Impact. The proposed residential project would not produce hazardous emissions or handle acutely hazardous materials, substances, or wastes. The nearest school to the project site is Meadow Green Elementary School, located at 12025 Grovedale Drive, Whittier, CA 90604 (approximately 0.25 mi south of the project site). As noted in Response 4.9(a), the proposed project is not anticipated to release hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes in significant quantities. Construction activities associated with the proposed project would use a limited amount of hazardous and flammable substances/oils during heavy equipment operation for site excavation, grading, and construction. The amount of hazardous chemicals present during construction is limited and would be contained in compliance with existing government regulations. Residences would not require the use, storage, disposal, or transport of large volumes of hazardous materials that could cause serious environmental damage in the event of an accident. Although hazardous substances would be present and utilized at these residences, such substances are generally present now in the existing development, are typically found in small quantities, and can be cleaned up without affecting the environment. Therefore, impacts related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or wastes within 0.25 mi of an existing or proposed school would be less than significant, and no mitigation would be required.

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

No Impact. According to the California Department of Toxic Substances Control (DTSC) EnviroStor database, the project site is not located on a federal Superfund site, State response site, voluntary cleanup site, school cleanup site, corrective action site, or tiered permit site (DTSC 2019). Therefore, the proposed project would not result in an impact related to a known hazardous materials site pursuant to Government Code Section 65965.5 and would not create a significant hazard to the public or the environment.

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

No Impact. The proposed project is not within an airport land use plan and is located approximately 3.5 miles to the north of the closest public airport or public use airport (Fullerton Municipal Airport). Additionally, the residential development would not be of a sufficient height to require modifications to the existing air traffic patterns at the airport and, therefore, would not affect aviation traffic levels or otherwise result in substantial aviation-related safety risks. Therefore, the proposed project would not result in impacts to an airport land use plan, or where such a plan has not been adopted, and would not result in a safety hazard or excessive noise for people residing or working in the project area.

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

Less Than Significant Impact. The proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. The County's General Plan Safety Element (2015f) outlines goals and policies aimed at reducing the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. Additionally, the County's General Plan Safety Element works in conjunction with the Operational Area Emergency Response Plan (OAERP), which is prepared by County's Chief Executive Office - Office of Emergency Management (CEO OEM). The OAERP strengthens short and long-term emergency response and recovery capability and identifies emergency procedures, as well as emergency management routes in Los Angeles County.

CEO OEM also prepares the All-Hazard Mitigation Plan, which provides policy guidance for minimizing threats from natural and man-made hazards in Los Angeles County. The All-Hazard Mitigation Plan, which has been approved by the Federal Emergency Management Agency and the California Emergency Management Agency, includes a compilation of known and projected hazards in Los Angeles County. The All-Hazard Mitigation Plan also includes information on historical disasters in Los Angeles County.

The proposed project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. During short-term construction activities, the proposed project is not anticipated to result in any substantial traffic queuing on nearby streets, and all construction equipment would be staged within the project site. Therefore, impacts related to emergency response and evacuation plans associated with construction of the proposed project would be less than significant.

The proposed project does not include any changes to public or private roadways that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Further, the proposed project would not obstruct or alter any transportation routes that could be used as evacuation routes during emergency events. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the County.

The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to County's fire standards. The proposed project would provide adequate emergency access to the site via driveways from Grovedale Drive, Richvale Drive, and the proposed new public road ("A" Court). Additionally, a portion of Lot 31 on the project site would be deeded to Lowell Join School District to provide fire access for the existing buildings located at the Lowell Joint School District Maintenance Facility to the south of the project site, which would remain in place. Further, access to and from the project site for emergency vehicles would be reviewed and approved by the County as part of the approval process to ensure the proposed project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, impacts related to interference with an emergency response plan are considered less than significant, and no mitigation would be required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving fires, because the project is located:

i) within a high fire hazard area with inadequate access?	☐	☐	☐	☒

No Impact. The project site is not within an area identified as a Fire Hazard Area that may contain substantial fire risk or a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2019). Therefore, impacts related to wildland fires would not occur, and no mitigation would be required.

ii) within an area with inadequate water and pressure to meet fire flow standards?	☐	☐	☐	☒

No Impact. As described above, the project site is located within an urban developed area and is not located within an identified wildland fire hazard area. Furthermore, the project site currently has adequate access, which would be continued with further development. As a result, impacts related to high fire hazards and inadequate access would not occur, and no mitigation would be required.

iii) within proximity to land uses that have the potential for dangerous fire hazard?	☐	☐	☐	☒

No Impact. The project site is not within proximity to land uses that have the potential for a dangerous fire hazard. The Specific Plan area is developed and is not in an area with light fuels or unpredictable weather conditions. The proposed project consists of residential land uses. This land use would not generate potential impacts related to a dangerous fire hazard, and no mitigation would be required.

h) Does the proposed use constitute a potentially dangerous fire hazard?	☐	☐	☐	☒

No Impact. The proposed project would develop residential land uses. None of the uses related to the proposed project would constitute a potentially dangerous fire hazard, impacts would not occur, and no mitigation would be required.

Existing Plans, Programs, or Policies

PPP HAZ-1: SCAQMD Rule 1166, Volatile Organic Compounds. The project is required to comply with the provisions of South Coast Air Quality Management District Rule (SCAQMD) Rule 1166, which provides handling requirements to control the emission of Volatile Organic Compounds (VOC) from excavating, grading, handling and treating VOC contaminated soils. The requirements include segregating VOC contaminated stockpiles, spraying the stockpiles with water or vapor suppressant, cover stockpiles with plastic sheeting, and treat or remove contaminated soil from an excavation or grading site within 30 days from the time of excavation

PPP HAZ-2: SCAQMD Rule 1466, Soils with Toxic Air Contaminants. The project is required to comply with the provisions of South Coast Air Quality Management District Rule (SCAQMD) Rule 1466 related to fugitive dust emissions containing toxic air contaminants. Rule 1466 requires ambient monitoring of PM_{10} concentrations during earth moving activities, activities to minimize fugitive dust, segregate stabilize and cover contaminated stockpiles with plastic sheeting and label with "SCAQMD Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminant(s) Applicable Soil";

PPP HAZ-3: SCAQMD Rule 1403, Asbestos. Prior to issuance of demolition permits, the project applicant shall submit verification to the County Building Department that an asbestos survey has been conducted at all existing buildings located on the project site. If asbestos is found, the project applicant shall follow all

procedural requirements and regulations of South Coast Air Quality Management District Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal.

PPP HAZ-4: Lead Based Paint. Prior to issuance of demolition permits, the project applicant shall submit verification to the County Building Department that a lead-based paint survey has been conducted at all existing buildings located on the project site. If lead-based paint is found, the project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead.

Mitigation Measures

MM HAZ-1: Prior to issuance of grading permits, the Property Owner/Developer shall submit site development plans to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) for Construction Site Plan review. Property Owner/Developer shall implement any actions recommended by DOGGR, including but not limited to, well abandonment to current standards, venting, leak testing and setbacks. Documentation of compliance shall be provided to the County of Los Angeles for approval.

MM HAZ-2: Based on the findings of the Phase I ESA, prior to issuance of demolition permits, a Phase II environmental site assessment is required in order to address the following items:

- Soils related to historical agricultural use for the presence of organochlorine pesticides (OCPs) and arsenic;
- Soils in areas surrounding building foundations for the presence of termiticides (OCPs) and lead;
- Geophysical survey to determine the exact location of the abandoned oil well and to identify areas of soil disturbance where drill cuttings or well wastewater may have been discharged.
- A soil and soil vapor investigation to determine if elevated levels of petroleum hydrocarbons and/or metals are present, as well as methane, hydrogen sulfide, or volatile organic compounds
- The presence of old caulking materials or applications which may contain polychlorinated biphenyls (PCBs)

The Property Owner/Developer shall conduct a Phase II ESA and submit evidence that any detected constituents detected are in concentrations below the maximum allowable concentration levels for residential development per California Department of Toxic Substances Control (DTSC) Residential Screening Level thresholds and do not pose a significant health risks to future residents. Contaminated soils shall be remediated or removed from the site. If any testing sites reveal contamination in excess of the DTSC Residential Screening Level thresholds, measures to minimize intrusion of pollutants into residences shall be applied as determined by the hazardous materials specialist.

MM HAZ-3: Construction period testing: Construction at the project site shall be conducted under a project-specific Construction Risk Management Plan (CRMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified and to address the possibility of encountering unknown contamination

or hazards in the subsurface. The CRMP shall summarize soil and groundwater analytical data collected on the project sites during past investigations and during site investigation activities; delineate areas of known soil and groundwater contamination, if applicable; and identify soil and groundwater management options for excavated soil and groundwater, in compliance with local, state, and federal statutes and regulations.

The CRMP shall:

1) Provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively.

2) Require the preparation of a project-specific Health and Safety Plan that identifies hazardous materials present, describes required health and safety provisions and training for all workers potentially exposed to hazardous materials in accordance with state and federal worker safety regulations, and designates the personnel responsible for Health and Safety Plan implementation.

3) Require the preparation of a contingency plan that shall be applied should previously unknown hazardous materials be encountered during construction activities. The contingency plan shall include provisions that require collection of soil and/or groundwater samples in the newly discovered affected area by a qualified environmental professional prior to further work, as appropriate. The analytical results of the sampling shall be reviewed by the qualified environmental professional and submitted to the appropriate regulatory agency. The environmental professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications, in accordance with local, state, and federal requirements. Work shall not resume in the area(s) affected until these recommendations have been implemented under the oversight of the County or regulatory agency, as appropriate.

(4) Designate personnel responsible for implementation of the CRMP. The CRMP shall be submitted to the County for review and approval prior to the issuance of construction and demolition permits. This measure would reduce the hazards and hazardous materials impact to a less-than-significant level.

10. HYDROLOGY AND WATER QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

Less Than Significant Impact. The proposed project involves demolition of four permanent single-story structures, additional single-story modular structures, as well as other associated school improvements. The project also includes construction of 29 new single-family residences, drainage and utility infrastructure, and a public road ("A" Court). Pollutants of concern during project construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and transport of sediment downstream compared to existing conditions. During a storm event, soil erosion could occur at an accelerated rate. In addition, construction-related pollutants, such as chemicals, liquid and petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste, could be spilled, leaked, or transported via stormwater runoff into adjacent drainages and into downstream receiving waters.

Construction
Construction of the project would require grading and excavation of soils, which would loosen sediment, and then have the potential to mix with surface water runoff and degrade water quality. Additionally, construction would require the use of heavy equipment and construction-related chemicals, such as concrete, cement, asphalt, fuels, oils, antifreeze, transmission fluid, grease, solvents and paints. These potentially harmful materials could be accidentally spilled or improperly disposed of during construction and, if mixed with surface water runoff, could wash into and pollute waters.

These types of water quality impacts during construction of the project would be prevented through implementation of a stormwater pollution prevention plan (SWPPP), which is mandated by the State of California to prevent contamination from escaping the construction site. Construction of the project would disturb more than one acre of soil; therefore, the project would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity to be issued by the Los Angeles Regional Water Quality Control Board (LARWQCB). Construction activity subject to this permit includes clearing, grading, and ground disturbances such as trenching, stockpiling, or excavation. The Construction General Permit requires implementation of a SWPPP that is required to identify all potential sources of pollution that are reasonably expected to affect the quality of storm water discharges from the construction site. The SWPPP would generally contain a site map showing the construction perimeter, proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways. The SWPPP would also include construction Best Management Practices (BMPs) such as:

- Maximize the permeable area
- Incorporate landscaped buffer areas
- Maximize canopy interception with drought tolerant landscaping
- Low flow infiltration within sand filter zones

- Site design with minimum design standards
- Landscape design with minimum to no impervious surfaces
- Isolated roof run-off into proposed Treatment Control Facility

Adherence to the existing requirements and implementation of the appropriate BMPs as ensured through the County's construction permitting process. This would ensure that the project would not violate any water quality standards or waste discharge requirements, potential water quality degradation associated with construction activities would be minimized, and impacts would be less than significant.

Operation

Potential pollutants of concern from long-term operation of residential developments include suspended solids, nutrients, bacteria/viruses/pathogens, pesticides, oil and grease, trash and debris, and dry weather runoff. Other pollutants of concern include suspended solids, oil and grease, and trash and debris. These pollutants could potentially discharge into surface waters and result in degradation of water quality. Thus, the project would be required to comply with existing regulations that limit the potential for pollutants to discharge from the site. The project would implement low impact development (LID) BMPs in accordance with the Los Angeles County Low Impact Development Standards Manual to improve water quality and mitigate potential water quality impacts caused by the project. The project would be designed to mitigate increase peak flow rates on the project site through on-site storage/detention (United Civil, Inc. 2019a).

LID BMPs are systems and practices that use or mimic natural processes to infiltrate, evapotranspirate, or use stormwater to protect water quality. The project site has a historic high ground water level at 17 to 32 feet below ground and measured percolation rate of 0.02 inch per hour per the soil report in the Geotechnical Study (GeoTek 2018), which is less than the specified minimum infiltration rate of 0.3 inches per hour per the LID Standards Manual. This makes the site infeasible for infiltration. Therefore, the entire project site is proposed to bio-filtrate 1.5 times the Stormwater Quality Design Volume before the treated stormwater runoff is discharged from all Filterra units and conveyed into the existing 24-inch storm drainpipe on Richvale Drive existing Storm Drain in Richvale Drive (United Civil, Inc. 2019a).

Construction and operation of the project would not involve injection of water into the groundwater table; therefore, the project would not directly introduce pollutants to groundwater. However, infiltration of stormwater can have the potential to affect groundwater quality in areas of shallow groundwater. Pollutants in stormwater are generally removed by soil through absorption as water infiltrates. Due to the depth to groundwater, it is not expected that any stormwater that may infiltrate during construction and operation would affect groundwater quality because there is not a direct path for pollutants to reach groundwater.

Pursuant to Section 22.44.1513 of the County's Code related to Low-Impact Development Standards, construction and operation BMPs would be implemented as a standard condition of the proposed project, which would reduce impacts to water quality during construction and operation, including those impacts associated with soil erosion and siltation. The LID Standards require that new development (1) mimics undeveloped stormwater runoff rates and volumes in any storm event up to and including the Capital Flood (2) prevents pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a Water Quality Design Storm Event, and (3) minimizes hydromodification impacts to natural drainage systems. Compliance with Section 22.44.1513 of the County's Code would be implemented through the development permitting and plan check process.

With implementation of construction and operation BMPs, potential pollutants would be reduced to the maximum extent feasible, and development of the proposed project would not violate any water quality

standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, impacts related to groundwater quality would be less than significant, and no mitigation is required.

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

No Impact. As discussed in the Geotechnical Due Diligence and Preliminary Infiltration Study, based on the results of the field exploration, as well as review of site area geomorphology and geology, groundwater is not anticipated to adversely affect the proposed improvements (GeoTek 2018). In addition, any groundwater dewatering would be minimal and short-term and would not decrease groundwater supplies or interfere with recharge. The project site is not located above a groundwater basin; therefore, any groundwater dewatered would not be from a basin used for groundwater supplies or storage.

An increase in impervious surface area decreases infiltration, which can decrease the amount of water that is able to recharge groundwater. However, infiltration occurring on the project site does not serve to recharge groundwater supplies because the project site is not located above a groundwater basin. In addition, groundwater extraction would not occur during operation of the proposed project. Therefore, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge or impede sustainable groundwater management of a groundwater basin.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: ☐ ☐ ☐ ☐

(i) Result in substantial erosion or siltation on- or off-site? ☐ ☐ ☒ ☐

Less Than Significant Impact. During grading and other construction activities, excavated soil would be exposed and disturbed, and drainage patterns would be temporarily altered. There would also be an increased potential for soil erosion and the transport of sediment downstream compared to existing conditions. During a storm event, soil erosion could occur at an accelerated rate. As discussed in Response 4.10(a) and required in Section 22.44.1513 of the County's Code, construction and operation BMPs would be implemented as a standard condition of the proposed project, which would reduce impacts to water quality during construction and operation, including those impacts associated with soil erosion and siltation. With implementation of construction and operation BMPs, construction and operation impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation is required.

The proposed project would increase the impervious surface area on the project site compared to existing condition, however, the proposed project would install drainage features that would handle and treat all potential stormwater runoff from the project site. Furthermore, the proposed project would not alter the course of a stream or river. Therefore, construction and operational impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation would be required.

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

Less Than Significant Impact. As discussed previously in Response 4.10(c)(i), calculations done as part of the Hydrology & LID Report for the project determined that the project would not alter the amount or rate of runoff from the project site with implementation of BMPs. As such, impacts related to flooding resulting from alteration of drainage patterns would be less than significant, and no mitigation measures are required.

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

Less Than Significant Impact. As discussed previously in Response 4.10(a), construction of the proposed project has the potential to introduce pollutants to the storm drainage system from erosion, siltation, and accidental spills. However, project construction would comply with the County's Code, which requires implementation of construction BMPs to reduce impacts to water quality, including those impacts associated with soil erosion, siltation, and spills, so as not to provide additional sources of polluted runoff to the storm drain system. Therefore, project compliance with the requirements of the County's Code would ensure that the project construction would not provide additional sources of polluted runoff. Therefore, construction impacts related to the provision of substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.

As discussed previously in Response 4.10(a), operation of the proposed project has the potential to introduce pollutants to the storm drainage system. As specified in Section 22.44.1513 of the County's Code, the proposed project would include BMPs to target and reduce pollutants in stormwater runoff from the project site during operation. The project site has a historic high ground water level at 17 to 32 feet below ground and measured percolation rate of 0.02 inch per hour per the soil report within the Geotechnical Study (GeoTek 2018), which is less than the specified minimum infiltration rate of 0.3 inches per hour per the LID Standards Manual. This makes the site infeasible for infiltration. Therefore, the entire project site is proposed to bio-filtrate 1.5 times the Stormwater Quality Design Volume (SWQDv) before discharging the treated stormwater runoff from all proposed Filterra units into the existing 24-inch storm drainpipe on Richvale Drive (United Civil, Inc. 2019a). With implementation of operational BMPs, the proposed project would not provide substantial additional sources of polluted runoff. Therefore, impacts related to the provision of substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.

As discussed previously in Response 4.10(c), the proposed project would increase the impervious surface area on the project site compared to existing condition, however, with implementation of BMPs, the proposed project would handle and treat all potential stormwater runoff from the project site. Therefore, the project would not create or contribute additional runoff water to the downstream storm drain system that would exceed the storm drain system's capacity, and no mitigation is required.

(iv) Impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area ☐ ☐ ☐ ☒

or County Capital Flood floodplain to a significant risk of loss or damage involving flooding?

No Impact. According to the Federal Emergency Management Agency (FEMA), the project site not within a Floodway, 100-year floodplain, or 500-year floodplain (FEMA 2019). Because the project would not include improvements or place structures within a 100-year floodplain, therefore would be no potential for the project to alter the existing drainage pattern in a manner that would impede or redirect flood flows. Thus, no flood related impacts would occur.

d) Otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements? ☐ ☐ ☐ ☒

No Impact. As discussed in Response 4.10(c)(iv), the project site is not within a flood hazard area, and no existing surface drainages or rivers are located on the project site. As a result, no adverse impacts related to flooding are expected as a result of the development of the proposed project. No impacts would occur.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84)? ☐ ☐ ☒ ☐

Less Than Significant Impact. The LA County LID ordinance was designed to manage rainfall and stormwater runoff in urban areas through the distribution of small, cost-effective landscape features throughout project sites. Such features include bio-retention/filtration landscape areas, reduced impervious surfaces, and functional landscaping and grading.

Pursuant to Section 22.44.1513 of the County's Code related to Title 12 and Low-Impact Development Standards, construction and operation BMPs would be implemented as a standard condition of the proposed project, which would reduce impacts to water quality during construction and operation, including those impacts associated with soil erosion and siltation. The LID Standards require that new development (1) mimics undeveloped stormwater runoff rates and volumes in any storm event up to and including the Capital Flood (2) prevents pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a Water Quality Design Storm Event, and (3) minimizes hydromodification impacts to natural drainage systems. Compliance with Section 22.44.1513 of the County's Code would be implemented through the development permitting and plan check process.

Development of the proposed project would comply with Los Angeles County's LID and would incorporate BMPs that are consistent with LID. Therefore, impacts would be less than significant, and no mitigation would be required.

f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)? ☐ ☐ ☐ ☒

No Impact. Wastewater from the project site is conveyed via County sewer infrastructure to the Los Coyotes Water Reclamation Plan (WRP), which serves District 18 of the Sanitation District of Los Angeles County

(LACSD). No wastewater treatment systems are proposed as part of the project. The proposed project would not include an on-site wastewater treatment system. Therefore, no impacts would occur.

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

No Impact. As discussed in Response 4.10(c)(iv), the project site is not within a flood hazard area. As such, the project site is not at risk of inundation during a storm event. Therefore, the proposed project would not risk release of pollutants within a flood hazard area. No impacts would occur.

Tsunamis are generated ocean wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The proposed project is approximately 14 miles from the nearest ocean shoreline. Based on the inland location of the project site, the project site is not at risk of inundation from tsunami. Therefore, the proposed project would not risk release of pollutants from inundation from a tsunami. No impacts would occur.

Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities (e.g., reservoirs and lakes). Such waves can cause retention structures to fail and flood downstream properties. The project site is not located adjacent to any water retention facilities. For this reason, the project site is not at risk of inundation from seiche waves. Therefore, the proposed project would not risk release of pollutants from inundation from seiche. No impacts would occur.

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

Less Than Significant Impact. The project is within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). The Los Angeles RWQCB has adopted the LARWQCB Basin Plan, which is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan designates beneficial uses for surface and ground waters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and describes implementation programs to protect all waters in the Region. As summarized below, the project would comply with the applicable NPDES permits and implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff.

As discussed in Response 10(a), during construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters. However, the proposed project would be required to comply with requirements set forth by Section 22.44.1513 of the County's Code, which requires implementation of construction BMPs to control stormwater runoff and discharge of pollutants.

The construction and operational BMPs would be implemented to reduce pollutants of concern in stormwater runoff so that the project would not degrade water quality, cause the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. As such, the project would not result in water quality impacts that would conflict with the LARWQCB's Basin Plan. Impacts related to conflict with a water quality control plan would be less than significant, and no mitigation is required.

In addition, as discussed in Response 10(a), the project site is not located above a groundwater basin. Therefore, the project is not located in an area covered by a sustainable groundwater management plan or in an area where a sustainable groundwater management plan would be developed. Thus, the project would not conflict with or obstruct the implementation of a sustainable groundwater management plan, and no mitigation is required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

No Impact. The project site has four permanent single-story structures, additional single-story modular structures, as well as paved parking areas on the eastern portion of the site, a playground in the center of the site, and sports courts on the southwestern portion of the site, and grassy open space areas on the western portion of the site. The project site is bounded by Richvale Drive to the north; Grovedale Drive to the west; the Lowell Joint School District Maintenance Facility to the south; and single family residential uses to the west.

The project site is primarily surrounded by residential and educational uses. The proposed project would replace the existing educational uses with residential uses and would not physically divide an established community. The land uses proposed for the site are consistent with the land uses designated by County's General Plan, as well as consistent with residential land uses in the immediate project vicinity. In addition, project implementation would not disturb or alter access to any existing adjacent uses. Therefore, the proposed project would not result in the physical division of any established community, and no mitigation would be required.

b) Cause a significant environmental impact due to a conflict with any County land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Less Than Significant Impact. The main documents regulating land use for the project site and immediate vicinity are the County's General Plan and Code. The proposed project's relationship to these planning documents is described below.

General Plan
The County's General Plan is the principal land use document guiding development within unincorporated Los Angeles County. The General Plan is a comprehensive plan that establishes goals and policies intended to guide growth and development in the County.

The project site currently has General Plan land use designation of Public and Semi-Public (P). As discussed previously in Section 3.3, General Plan and Zoning, the P designation allows residential land uses because the area surrounding the project site is similar to and compatible with the proposed subdivision. The existing surrounding residential uses have the same zone (R-A-6000) and are therefore subject to the same development standards so the densities are similar Therefore, the proposed project is consistent with the General Plan.

County Code
Section 22.02.020 of the County's Code discusses the purpose of Title 22, which is the primary implementation tool to give "due and special consideration to the peculiar suitability of each and every such

zone herein created for the particular uses enumerated therefor, the area requirements, density of land occupancy, and the necessary, proper, and comprehensive groupings and arrangements of the various industries, businesses, and population of the unincorporated area of the Los Angeles County (County) and in relation with established plans in the incorporated areas of the County in accordance with a well-considered master plan of land use for the development of the entire County, paying particular attention to those areas in said unincorporated area in which more densely populated communities have arisen, giving to such communities urban characteristics" [5]. Title 22 describes and elaborates on permitted land uses and contains more specific information related to allowable building intensities and development standards.

Therefore, the Title 22 regulations must be consistent with the County's General Plan. According to Title 22 of the County's Code, the project site has a zoning designation of R-A-6000, which requires a minimum lot size of 6,000 sf. The purpose of the R-A-6000 zone to provide for the proper utilization of those lands best suited for residential and agricultural uses. Typical uses allowed in the R-A-6000 zone include residences, community gardens, crops, and plant nurseries.

The proposed project is a residential development with parcels approximately 6,000 sf to 10,501 sf in size. Thus, the proposed project is consistent with the Title 22 of the County's Code. Therefore, the proposed project would not conflict with the land use plan, policies, or regulations and no mitigation would be required.

c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?	☐	☐	☐	☒

No Impact. The proposed project is within an urbanized residential area of unincorporated Los Angeles County. The proposed project is not located within any habitat conservation plan or natural community conservation plan. Therefore, no impact would occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

[5] Section 22.02.020 of the Los Angeles County Code

12. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

No Impact. In 1975, the California Legislature enacted the Surface Mining and Reclamation Act (SMARA), which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership. The areas are categorized into four Mineral Resource Zones (MRZs): MRZ-1: An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence; MRZ-2: An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence; MRZ-3: An area containing mineral deposits, the significance of which cannot be evaluated; and MRZ-4: An area where available information is inadequate for assignment to any other MRZ zone.

The proposed project is not within an MRZ zone, as shown in Figure 9.6 of the County's General Plan and would not convert any regionally important mineral extractions sites to any other uses or affect the ability mine regionally important minerals. Therefore, the proposed project is not anticipated to result in the loss of availability of a valuable known mineral resource. Therefore, development of the site would not result in the loss of availability of a known mineral resource and no impacts would occur.

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

No Impact. As discussed in Response 4.12(a), no known valuable mineral resources exist on or near the project site, and no mineral resource extraction activities occur on the site. In addition, the project site is fully developed with educational uses and does not involve any activities involving mineral resource recovery. Furthermore, the proposed residential development would not cause loss of potential resources. Therefore, no impacts related to the loss of availability of a locally important mineral resource recovery site, as delineated on a local general plan, specific plan, or other land use plan, would occur as a result of project implementation.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

13. NOISE

General Plan

Chapter 11 of the County's General Plan Noise Element (2015g) sets the goals and policy direction for the management of noise in the unincorporated areas. The purpose of the Noise Element is to reduce and limit the exposure of the general public to excessive noise levels. New development may cause existing noise-sensitive land uses to be affected by noise generated from new developments, or it may locate a sensitive use in such a place that it is adversely affected by noise.

County Code

The County maintains the health and welfare of its residents with respect to noise through nuisance abatement ordinances and land use planning. The County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Los Angeles County Board of Supervisors in 1977 "…to control unnecessary, excessive, and annoying noise and vibration.…" It declares that the purpose of the County policy is to "…maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values." [6].

Accordingly, it is unlawful to cause the noise level on any residential property to exceed these exterior noise standards:

1. For a cumulative period of more than 30 minutes in any hour;
2. Plus 5 dBA for a cumulative period of more than 15 minutes in any hour;
3. Plus 20 dBA for a cumulative period of more than 5 minutes in any hour;
4. Plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
5. Plus 20 dBA for any period of time.

In addition, it is also unlawful to cause the noise level on any residential property to exceed these interior noise standards:

1. For a cumulative period of more than 5 minutes in any hour;
2. Plus 5 dBA for a cumulative period of more than 1 minute in any hour; or
3. Plus 10 dBA for any period of time.

Table N-1: Residential Noise Standards

Receiving Land Use Category	Time Period	Noise Level - dBA
Residential Exterior Noise Standards	10:00 P.M. - 7:00 A.M.	45 dBA Leq
	7:00 A.M. - 10:00 P.M.	50 dBA Leq
Residential Interior Noise Standards	Any period of time	45 dBA Leq

Source: Chapter 12.08 of the Los Angeles County Code

Sensitive Receptors

Sensitive receptors of generated noise are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise sensitive land uses

[6] Section 12.08 of the Los Angeles County Code

are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreational areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses which are considered relatively insensitive to noise include business, commercial, and professional developments. Sensitive Receptors adjacent to the project site are described below:

- North: Across Richvale Drive to the north of the project site are single-family residential-closest home minimally 100 feet to closest project structure.

- East: Across Grovedale Drive to the east of the project site are single-family residential uses-closest home minimally 100 feet to an on-site structure.

- South: Immediately south of the project site is the existing maintenance facilities for the Lowell Joint School District, as well as single family residential uses. No homes immediately adjacent to the site.

- West: Immediately west of the project site are single family residential uses, closest home approximately 75 feet to an on-site structure. This is the maximally impacted off-site residence and is adjacent to Lot 30. All other homes along the western perimeter have a greater setback.

Construction Noise
Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. As the distance between equipment or separation of areas with simultaneous construction activity increases, dispersion and distance attenuation reduce the effects of the separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activities is generally lower because maximum noise generation may only occur up to 50 percent of the time. The most commonly used environmental noise descriptor is the equivalent level (Leq) and measured in A-weighted decibels (dBA). Construction noise is prohibited between the weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, as discussed in the County Code.[7]

Operational Noise
The project would be required to be compatible with the County's Noise Control Ordinance. The Community Noise Equivalent Level (CNEL), which represents a composite 24-hour noise level, is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The County Code states that typical noise standards for sensitive land uses include 50 dBA CNEL for daytime hours (7:00 am to 10:00 pm) and 45 dBA CNEL for nighttime hours (10:00 pm to 7:00 am) for residential properties[8]. The proposed project is required to comply with these significance thresholds identified in the County Code.

Vibration
Construction activities also generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernible movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the "soft" sedimentary surfaces of

[7] Section 12.08 of the Los Angeles County Code
[8] Section 12.08.390 of the Los Angeles County Code

much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors[9].

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

A vibration descriptor commonly used to determine structural damage is the peak particle velocity (ppv) which is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of such vibration is as follows in Table N-2:

Table N-2: Human Response to Transient Vibration

Average Human Response	ppv (in/sec)
Severe	2.00
Strongly perceptible	0.90
Distinctly perceptible	0.24
Barely perceptible	0.03

Source: Caltrans Transportation and Construction Vibration Guidance Manual 2013[10]

Over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. As shown in Table 6, according to Caltrans and the FTA, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Older fragile residential structures have a 0.3 in/sec threshold. Below this level there is virtually no risk of building damage.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☐	☐	☒	☐

[9] FTA Transit Noise and Vibration Impact Assessment. 2018. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf
[10] Caltrans Transportation and Construction Vibration Manual. 2013. Website: https://www.cityofdavis.org/home/showdocument?id=4521

Less Than Significant Impact.

Construction

Short-term noise impacts would occur during demolition and construction of the proposed project. Construction-related, temporary noise levels would be higher than existing ambient noise levels in the study area but would cease once project construction is completed.

Two types of temporary noise impacts would occur during project construction. The first type would be from construction crew commutes and the transport of construction equipment and materials to the project site, which would incrementally raise noise levels on access roads leading to the site. The pieces of heavy equipment for grading and construction activities would be moved on site and would remain for the duration of each construction phase. Richvale Drive and Grovedale Drive would be used to access the project site during construction.

The second type of temporary noise impact is related to noise generated during demolition, site preparation, grading, building construction, architectural coating, and paving on the project site. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Site preparation, which includes excavation and grading, generates the highest noise levels due to the noise produced by earthmoving equipment. Earthmoving equipment includes graders, excavators, bulldozers, backhoes, and front loaders. Each piece of construction equipment operates as an individual point source.

Table N-3 adjusts the 50-foot reference construction noise levels for the setback to the nearest off-site residence. The highest noise from construction would occur during demolition and grading, when noise levels are anticipated to reach 79 dBA Leq at the nearest sensitive receptors (residences). During demolition and grading the 75 dBA Leq noise standard could be exceeded at the closest off-site residences to the west when equipment is operating at the property line.

Table N-3: Construction Noise Levels at the Nearest Sensitive Receptor

Construction Phase	Equipment	Homes to the West		Homes to the North	Homes to the East
		No Berm	W Berm[11]		
Demolition	Concrete Saw	79	69	77	77
	Dozer	78	68	76	76
	Loader/Backhoe	70	60	68	68
Grading	Grader	77	67	75	75
	Dozer	78	68	76	76

[11] The 15-foot elevation differential provides 10-15 dBA of noise reduction. To be conservative, this analysis assumes the lesser attenuation (10 dBA).

	Loader/Backhoe	70	60	68	68
Building Construction	Crane	69	59	67	67
	Loader/Backhoe	70	60	68	68
	Welders	67	57	65	65
	Generator Set	74	64	72	72
	Forklift	65	55	63	63
Paving	Paver	70	60	68	68
	Mixer	71	61	69	69
	Paving Equipment	68	58	66	66
	Loader/Backhoe	70	60	68	68
	Roller	70	60	68	68

Source: Hans Giroux & Associates 2019

As shown in Table N-3 above, residences to the west would be exposed to the highest construction noise levels. These homes are located approximately 15 feet below the grade of the project site. As a result, the natural slope of 2:1 between the project site and the off-site residences to the west acts as a solid barrier, which will significantly reduce the noise level at the receptor. The barrier created by the 15-foot slope is considered an earthen berm and can provide 10-15 dBA of noise attenuation, resulting in construction noise levels at the sensitive uses to the west of the site remain below 75 dBA. Furthermore, the worst-case condition is depicted in Table N-3, which assumes heavy equipment operating 50 feet from the sensitive uses at the shared property line. Since heavy construction equipment including graders, dozers, etc., is mobile and circulates throughout the site, it can be assumed heavy equipment will operate at the property line for short, intermittent periods thorough the day (Hans Giroux & Associates 2019). The majority of the remaining construction would be associated with the individual homes throughout and on the interior of the site.

Therefore, with implementation of the County's restriction on construction hours and best management practices, such as equipment staging away from sensitive uses, as outlined in PPP N-1, construction noise impacts would be less than significant.

Operation

A substantial permanent increase in ambient noise levels in the project vicinity above existing levels is considered to occur if the project would cause long-term noise levels to increase by 3 dBA or more. Potential long-term noise impacts associated with project operation would include exterior traffic noise and interior noise.

Vehicular Noise. The project site is located in an area in which most surrounding parcels are currently in use. Traffic along these roads provides the dominant source of existing ambient noise. Two short-term noise measurements were taken in the vicinity of the project area on Monday, November 4, 2019. The purpose of the measurements was to characterize existing noise levels adjacent to the project area and at sensitive receptors. Table N-4 provides the existing ambient noise at these sites, which ranges between a low of 43 Leq dBA and a high of 59 Lmax dBA.

Table N-4: Summary of Existing Ambient Noise

Meter	Location	Leq (dBA)	Lmax (dBA)	Lmin (dBA)
Meter 1	Grovedale Drive 50 feet to centerline	53	59	47
Meter 2	Richvale Drive 45 feet to centerline	51	57	43

Source: Hans Giroux & Associates 2019

As discussed in Response 16(a) below, the proposed project is estimated to generate a total of 274 average daily trips (ADT) to and from the project site. Of these trips, 21 would occur in the a.m. peak hour and 29 would occur in the p.m. peak hour, as displayed in Table T-1. The significance of the project's traffic noise impacts is determined by comparing existing ambient noise levels with project-related noise levels.

The traffic analysis shows that the proposed residential use would generate less trips than the existing school use. As result, project traffic would not negatively impact off-site receptors along area roadways compared to existing conditions. Therefore, the long-term noise levels associated with traffic on the project site would be less than significant.

Stationary Equipment Noise. Once the proposed project is operational, noise levels generated at the project site would mainly occur from new stationary equipment such as heating, ventilation, and air conditioning (HVAC) units that would be installed for the new residences. Although the operation of this equipment would generate noise, the design of these onsite HVAC units and exhaust fans would be required to comply with the noise limit regulations of the County's Code, which states that typical noise standards for sensitive land uses are 50 dBA CNEL for daytime hours (7:00 am to 10:00 pm) and 45 dBA CNEL for nighttime hours (10:00 pm to 7:00 am) for residential properties[12]. The County's interior noise standards would also be met with implementation of standard construction as required by the County. Therefore, impacts related to generation of noise in excess of standards would not occur from operation of the proposed project.

The project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be less than significant.

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

Less Than Significant Impact.

Construction
According to Caltrans and the Federal Transit Administration (FTA), the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Older fragile residential structures have a 0.3 in/sec threshold[13][14]. Below this level there is virtually no risk of building damage.

[12] Section 12.08.390 of the Los Angeles County Code
[13] Caltrans Transportation and Construction Vibration Manual. 2013. Website: https://www.cityofdavis.org/home/showdocument?id=4521
[14] FTA Transit Noise and Vibration Impact Assessment. 2018. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

To be conservative, the damage threshold of 0.3 in/sec for older fragile residential structures was used in this analysis. The predicted vibration levels generated by construction equipment anticipated for use are shown below in Table N-5.

Table N-5: Human Response to Transient Vibration

Average Human Response	PPV at 25 ft (in/sec)	PPV at 40 ft (in/sec)	PPV at 50 ft (in/sec)	PPV at 60 ft (in/sec)	PPV at 75 ft (in/sec)
Large Bulldozer	0.089	0.044	0.031	0.024	0.017
Loaded trucks	0.076	0.037	0.027	0.020	0.015
Jackhammer	0.035	0.017	0.012	0.009	0.007
Small Bulldozer	0.003	0.001	<0.001	<0.001	<0.001

Source: FTA Transit Noise and Vibration Impact Assessment 2018

The closest residence adjacent to the project boundary is 25 feet from the closest building façade. As seen in Table N-5, the predicted vibration levels generated by construction equipment such as a large bulldozer would be below levels that could create structural damage of older residential structures (i.e., 0.3 in/sec) at these distances. Furthermore, large bulldozers will not likely operate directly at the shared property line, and therefore, vibration impacts are not expected to occur at the nearest structures. In the event that such equipment may pass directly along the property line of adjacent residences, vibration effects would not be expected to exceed even the "barely perceptible" response range.

Operation

Operation of the proposed residences would not generate vibration. In addition, vibration levels generated from project-related traffic on adjacent roadways are unusual for on-road vehicles due to the vibration isolation of the rubber tires and suspension systems of on-road vehicles. Thus, vibration generated from project-related traffic on the adjacent roadways would be less than significant. Therefore, overall long-term, ground-borne noise and vibration impacts from vehicular traffic generated by the project would be less than significant, and no mitigation would be required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

No Impact. The project site is not within the vicinity of a private airstrip or an airport land use plan. The proposed project is located approximately 3.5 miles to the north of the closest public airport or public use airport (Fullerton Municipal Airport). Therefore, no noise impacts from aircraft noise would occur.

Existing Plans, Programs, or Policies

PPP N-1 The following Best Management Practices, included as Conditions of Approval, would reduce any noise level increases produced by the construction equipment to the nearby noise-sensitive residential land uses:

- Prior to approval of grading plans and/or issuance of building permits, the Property Owner/Developer shall include a note on the plans indicating that noise-generating project construction activities shall only occur between the hours of 7:00 a.m. to 7:00 p.m. or at any time on Sundays or holidays (Section 12.08.440 of the Los Angeles County Code). The project construction supervisor shall ensure compliance with the permitted construction hours. A posting will be provided on site showing contact information for nearby residents to call or contact to report noise complaints.
- Construction noise is not expected to exceed 75 dB at the nearest sensitive use but is nevertheless minimized by the following conditions:
    - All equipment shall be equipped with properly operating and maintained mufflers.
    - Equipment and materials shall be staged in areas that will create the greatest distance between construction-related noise sources and the noise-sensitive receptors nearest the project site during all project construction.
    - All construction-related activities shall be restricted to the construction hours outlined in the County's Noise Ordinance.
    - Construction-related trucks traveling to and from the project site shall be restricted to the same hours specified for the operation of construction equipment. To the extent feasible, haul routes shall not pass directly by sensitive land uses or residential dwellings.

Mitigation Measures

None.

14. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Less Than Significant Impact. The project would involve the demolition of existing institutional uses on the project site and development of 29 single-family residences, drainage and utility infrastructure, and a new public road ("A" Court). The proposed residential development would construct the new single-family residences on parcels ranging from 6,000 square feet to 10,501 square feet of gross lot area, which would include private driveways and outdoor areas. The residences would range in size from approximately 2,400 to 2,800 square feet for the one-story design and approximately 2,900 to 3,300 square feet for the two-story design footprint. Overall, the proposed project would result in a net increase of 29 single-family residential units.

Based on the California Department of Finance (CDF) data, with an estimate of 3.01 persons per household within Los Angeles County (CDF 2019), the proposed project would result in a net increase of approximately 87 new persons. Overall, the Southern California Association of Governments' (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy's (2016-2040 RTP/SCS) population and household growth forecast from 2012 through 2040 for the County's unincorporated area envisions 233,000 additional persons, yielding an approximately 22.4% growth rate. The unincorporated area projects to have a population of 1,273,700 persons and 392,400 housing units by 2040. The proposed project would generate approximately 87 persons, which represents approximately 0.007 percent of the forecasted population in 2040 and approximately 0.004 percent of the forecasted growth between 2012 and 2040 for the County's unincorporated area. Thus, the proposed increase in housing units and population as a result of the proposed project is within SCAG's 2016-2040 RTP/SCS growth forecast. Therefore, the proposed project would not induce substantial population growth in the area and impacts would be less than significant.

Furthermore, the proposed project is located in an urbanized residential area of unincorporated Los Angeles County and is surrounded by residential uses. The proposed project does not propose to expand surrounding utility infrastructure (e.g., water, electricity, cell tower, gas, sanitary sewer, and stormwater drains) in the project vicinity. All on-site systems would be provided and maintained by the property owner, as well as connect to existing infrastructure within adjacent roadways. In addition, vehicular access would be provided by a new public road ("A" Court) via Grovedale Drive. Because the project proposes development in an already built-out neighborhood, it would not indirectly induce population growth through the extension of roads or other infrastructure. In addition, the proposed project would not create employment opportunities that could induce population growth.

The increase in population resulting from the proposed project would be within the planned population estimates for the unincorporated area of Los Angeles County. Additionally, the project would not install infrastructure that would facilitate additional growth within the County. Therefore, potential impacts related

to inducement of unplanned population growth, either directly or indirectly, would be less than significant and no mitigation would be required.

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

No Impact. The existing project site does not provide any residential uses. Therefore, the proposed project would not displace a substantial number of existing people and would also provide 29 new residential units on the project site. With construction of the additional housing units, replacement housing would not need to be constructed elsewhere. Therefore, there would be no impacts related to the displacement of substantial numbers of existing people or housing.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐

Fire Protection – Less Than Significant Impact. The Los Angeles County Fire Department (LACFD) provides fire services to all unincorporated areas of the County and 59 cities. The nearest LACFD stations are Station Number 15 (located 0.5 miles northwest of the project site at 11460 Santa Gertrudes Avenue in Whittier) and Station Number 59 (located 2 miles north of the project site at 10021 Scott Avenue in the City of Whittier). Should the need arise for additional resources, the closes available resources from LACFD or surrounding cities would respond to the project site.

The proposed project could potentially increase the demand for LACFD services due to the construction of a new residential units. As discussed in Response 14(a) above, the project would generate approximately 87 new residents.

Station Number 15 located 0.5 miles northwest of the project site at 11460 Santa Gertrudes Avenue in Whittier would serve the project site. The new fire services required by this project would be supported by the LACFD and would not have a significant impact on fire or paramedic services to the remainder of the community. The Fire Department and the Building Division enforce fire safety standards during review of building plans and inspections. Additionally, the proposed 31-lot subdivision would be required to comply with the County's fire suppression standards, which requires compliance with the current California Building Codes related to adequate fire access. Following the Developer's payment of required development fees (including permit and inspection fees), impacts to fire protection would be less than significant and no mitigation would be required.

Sheriff protection?	☐	☐	☒	☐

Sheriff Protection – Less Than Significant Impact. The Los Angeles County Sheriff's Department (LACSD) provides sheriff protection to the unincorporated area of the County. The nearest LACSD is the Norwalk Sheriff Station (located 5.2 miles west of the project site at 12335 Civic Center Drive in Norwalk). The LACSD has mutual aid agreements with all Los Angeles County law enforcement agencies for assistance. Mutual aid can be requested from one or all agencies if an emergency requires a major response.

The project would pay the required development fees, which have been established by the County to fund public facilities, including police facilities. The project and its future residents would provide additional

revenue to the County resulting from increased property tax assessment revenue, which would assist in funding police operations. Additionally, the project would be required to provide and implement a site security plan during construction to ensure that impacts from construction site theft are kept at a less than significant level. Therefore, impacts would be less than significant, and no mitigation would be required.

Schools? ☐ ☐ ☒ ☐

Schools – Less Than Significant Impact. The project site is located within the Lowell Joint School District. The District is located in the southeastern portion of Los Angeles County and the northwestern portion of Orange County. It serves families from the communities of La Habra, La Habra Heights, and Whittier. The Lowell Joint School District includes five elementary schools and one intermediate school.

The project would develop 29 new single-family residences, which would result in a small number of new students. However, pursuant to Government Code Section 65995 et seq. (which was passed as Senate Bill 50 in 1998), school districts may collect development fees. According to Government Code Section 65996, the development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." Therefore, impacts to school facilities from implementation of the proposed project would be less than significant and no mitigation would be required.

Parks? ☐ ☐ ☒ ☐

Parks – Less Than Significant Impact. There is one County park, La Mirada Community Regional Park, within a 2-mile radius of the project site. This park and its facilities serve the existing recreational needs of the surrounding community.

The project would develop 29 new single-family residences, which could result in a modest increase in the use of public parks. As discussed within the County's General Plan Parks and Recreation Element (2015d), the County's standard for the provision of parkland is 4 acres of local parkland per 1,000 residents of the population in unincorporated areas. Therefore, the proposed project would generate the need for .34 acres of recreation and open space. Currently, the total available Los Angeles County parkland available within 2 miles of the project site is 76 acres within La Mirada Community Regional Park.

Additionally, the proposed project involves the subdivision of the existing parcel into 31 separate parcels through implementation of a Tentative Tract Map. Section 21.24.350 of the County's Code requires the subdivider of a residential subdivision to provide local park space to serve the subdivision, pay a fee in lieu of the provision of such park land in accordance with the provisions of Section 21.28.140, provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above in accordance with the requirements of this title. The proposed project would include recreational areas consisting of one open space lot within the new residential community. These proposed project amenities would serve to reduce or offset demand for off-site park services in the surrounding area. In addition, the project has a Quimby obligation of 0.34 acres of parkland or $96,187 in-lieu fees per Los Angeles County Code Section 21 .28.140. This obligation will be met by the payment of $96,187 in-lieu fees by the applicant to the Los Angeles County Parks and Recreation Department. Therefore, impacts would be less than significant, and no mitigation would be required.

Libraries? ☐ ☐ ☒ ☐

Libraries – Less Than Significant Impact. The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public libraries, nor need for new

or physically altered public libraries, the construction of which could cause significant environmental impacts in order to maintain acceptable public services. As a standard requirement for development projects, the Project Applicant would pay all applicable development impact fees prior to permit issuance. Therefore, impacts would be less than significant, and no mitigation would be required.

Other public facilities? ☐ ☐ ☒ ☐

Other Services – Less Than Significant Impact. The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, etc., nor need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable public services. As a standard requirement for development projects, the Project Applicant would pay all applicable development impact fees prior to permit issuance. Therefore, impacts would be less than significant, and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Less Than Significant Impact. According to the 2016 Countywide Comprehensive Parks and Recreation Needs Assessment, there are 3.3 acres of local and regional recreation park per 1,000 residents, which is less than the 4.0 acres per 1,000 goal included in the Los Angeles County General Plan. For regional open space and natural areas, there are 86.2 acres per 1,000 people countywide, which highly exceeds the standard of 6 acres per 1,000 documented in the Los Angeles County General Plan.

In addition to local and regional parks and trails, residents of unincorporated Los Angeles County are served by the following types of recreation facilities: multi-benefit parks, school sites, city parks and facilities, private recreational facilities, and greenways.

As discussed in Response 15(a) above, there is one County park, La Mirada Community Regional Park, within a 2-mile radius of the project site. Additionally, the La Mirada Golf Course is also within a 2-mile radius of the project site. Although there are many diverse park facilities within the project vicinity, the project-related increase in population could incrementally increase the use of existing parks within unincorporated areas of the County.

As discussed previously, the proposed project involves the construction of 29 new single-family residential units, which would result in a population increase of approximately 87 residents. As discussed previously, the County's standard for the provision of parkland is 4 acres of local parkland per 1,000 residents of the population in unincorporated areas, and the Los Angeles County Code Section 21.28.140 requires the subdivider of a residential subdivision to mitigate recreational impacts by dedicating park space, paying an in-lieu fee, or doing a combination of the two. The project has a Quimby obligation of 0.34 acres of parkland or $96,187 in-lieu fees per Los Angeles County Code Section 21.28.140. This obligation will be met by the payment of $96,187 in in-lieu fees by the applicant to the Department of Parks and Recreation.

As part of the project, Lot 31 would include approximately 6,636 sf of designated open space area. Residents are anticipated to utilize the on-site open space to a greater degree than off-site facilities due to convenience and proximity. In this way, the project's provision of on-site open space would reduce the use of area parks by project residents. Nevertheless, some project residents would still be expected to utilize other public recreational facilities. As a result, the proposed project would create an incremental increase in the use of area parks.

As discussed previously, the proposed project involves the subdivision of the existing parcel into 31 separate parcels through implementation of a Tentative Tract Map. Section 21.24.350 of the County's Code requires the subdivider of a residential subdivision to provide local park space to serve the subdivision, pay a fee in lieu of the provision of such park land in accordance with the provisions of Section 21.28.140, provide local

park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above in accordance with the requirements of this title. Overall, the project would be subject to the County's Code to provide local park space or pay a fee in lieu of the provision of park space, which would be used for the purpose of acquiring, developing, improving and expanding open space and park lands. Therefore, in compliance with Section 21.24.350 of the County's Code, the project's contribution to deterioration of parks and recreational facilities would be less than significant and no mitigation would be required.

b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact. The proposed project would include 6,636 sf of designated open space area on Lot 31 of the project site. The potential adverse effects associated with implementation of the proposed project have been considered throughout the analysis in this IS/MND. The project will be required to pay in-lieu Quimby fees to satisfy park obligation. Therefore, the proposed project does not include recreational facilities that would have an adverse physical effect on the environment.

c) Would the project interfere with regional trail connectivity?	☐	☐	☐	☒

No Impact. The proposed project would not interfere with regional open space connectivity. There is very little open space in the project area and the project would enhance open space connectivity by encouraging new development to provide additional public open space. Open space connectivity would occur from implementation of pedestrian connections, common open space areas, and public sidewalks. The open space provided by the proposed project would not interfere with any regional open space connectivity. Therefore, project impacts related to open space connectivity would not occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

17. TRANSPORTATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

Less Than Significant Impact. The project would involve the demolition of the existing educational uses on the project site and development of 29 new single-family residences, drainage and utility infrastructure, and a public road.

In anticipation of redevelopment of the site and closure of the school, the Carden School has been winding down operations over the last 5 years and limiting enrollment. As a result, the Carden School is currently operating at a fraction of its historic capacity. At full capacity, traffic generated from the school would be significantly higher compared to existing conditions. The traffic analysis conservatively compares the existing reduced capacity operations to the proposed 29 new single-family residences' operations.

As discussed in Section 4.14, the project is anticipated to result in a population increase of approximately 87 residents. The primary patrons of the proposed residential development would be residents and their visitors. As shown in Table T-1, the 29 new single-family residences would generate a total of 274 daily trips, which includes 21 AM peak hour trips and 29 PM peak hour trips. The project is estimated to generate 137 fewer net trips overall, 70 fewer AM peak hour trips, and 3 additional PM peak hour trips compared to the existing educational uses on the project site, as shown in Table T-1. A traffic impact analysis is not required based on the Los Angeles County Traffic Impact Analysis Report Guidelines.

Table T-1: Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Private School (K-8)[1]		Students	4.110	0.501	0.410	0.910	0.120	0.140	0.260
Single Family Detached Housing[2]		DU	9.440	0.185	0.555	0.740	0.624	0.366	0.990
Project Trip Generation									
Existing School	100	Students	411	50	41	91	12	14	26
Proposed Residential	29	DU	274	5	16	21	18	11	29
Net New Trip Generation			-137	-45	-25	-70	6	-3	3

TSF = Thousand Square Feet

[1] Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition,* 2017. Land Use Code 534 - Private School (K-8)

[2] Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition,* 2017. Land Use Code 210 - Single Family Detached Housing

Vehicular access to the project site would be provided via Grovedale Drive, Richvale Drive, as well as a new public road ("A Court") via Grovedale Drive. In addition, vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that currently serve the project area. As such, the proposed project would not introduce any new roadways or land uses that would interfere with adopted plans, programs, ordinances, or policies regarding roadway facilities.

Nonmotorized access to the project site is currently provided via public sidewalks along Grovedale Drive and Richvale Drive that connect to the existing project site. Bicycle access to/from the project site is also available via adjacent local streets. The project would improve public pedestrian facilities via sidewalks along the new internal public road ("A Court"), which would provide residents access to adjacent neighborhood uses. In addition, mass transit would not be affected by project implementation. Therefore, the proposed project would not conflict with adopted plans, programs, ordinances, or policies regarding public transit, bicycle, or pedestrian facilities.

The County's General Plan Mobility Element (2015e) assesses the challenges and constraints of the Los Angeles County transportation system and offers policy guidance to reach the County's long-term mobility goals. The General Plan also establishes a program to prepare community pedestrian plans, with guidelines and standards to promote walkability and connectivity throughout the County's unincorporated areas. The proposed project would be required to be consistent with the goals and policies outlined in the Mobility Element.

Title 15 of the Los Angeles County Code serves as the traffic ordinance for unincorporated areas of Los Angeles County and therefore establishes specific legal and organizational authority for traffic management and regulatory enforcement of use within the public right-of-way. The proposed project would be required to adhere to all regulations outlined in Title 15.

Overall, the proposed project would be required to adhere to policies in the City's General Plan Mobility Element, as well as regulations outlined in Title 15 of the County Code. In addition, final design of the proposed project would be subject to review by the Traffic Engineer, or designee, at the County's Department of Public Works. Therefore, the proposed project would result in a less than significant impact related to conflicts with an applicable plan, program, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and no mitigation would be required.

b) Conflict or be inconsistent with Guidelines for California Environmental Quality Act Section 15064.3 (b)?	☐	☐	☒	☐

Less than Significant Impact. See Response 17(a) above.

c) Substantially increase hazards due to a road design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

Less Than Significant Impact. Vehicular access to the project site would be provided via Richvale Drive, Grovedale Drive, as well as the new public road ("A" Court) via Grovedale Drive. Vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that currently serve the project site area. The proposed project would not introduce any new roadways or introduce a land use that would conflict with existing urban land uses in the surrounding area. The proposed project includes access to private driveways that would provide resident access to residential units. Design of the proposed project,

including the new public road ("A" Court), ingress, egress, and other streetscape changes, would be subject to the County's development standards. Therefore, the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment), and no mitigation would be required.

d) Result in inadequate emergency access? ☐ ☐ ☒ ☐

Less than Significant Impact. Emergency access to the project site would be provided by private driveways connecting to Richvale Drive, Grovedale Drive, as well as the new public road ("A" Court). Access to/from the site must be designed to County standards and would be subject to review by the Los Angeles County Fire Department for compliance with fire and emergency access standards and requirements. Therefore, approval of the project plans would ensure that the proposed project's impact related to emergency access would be less than significant, and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k), or	☐	☐	☒	☐

No Impact. The project would be required to comply with AB 52 regarding tribal consultation. Chapter 532, Statutes of 2014 (i.e., AB 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074). AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource falling outside the definition stated above nonetheless qualifies as a "tribal cultural resource."

As discussed in Section 4.5, A search of the Sacred Lands File by the Native American Heritage Commission (NAHC) and outreach efforts with five Native American tribal representatives was performed as part of the Cultural and Paleontological Resources Assessment performed by Material Culture Consulting, Inc. (MCC). The Sacred Land Files search did not identify any previously known tribal cultural resources within the project area. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines or PRC Section 5020.1(k), and no impacts would occur.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated. Chapter 532, Statutes of 2014 (Assembly Bill [AB] 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource." Also, per AB 52 (specifically PRC 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the County provide it with notice of such projects.

In compliance with AB 52 and SB 18, tribal consultation was initiated as part of the CEQA process. A search of the Sacred Lands File by the Native American Heritage Commission (NAHC) and outreach efforts with five Native American tribal representatives was performed as part of the Cultural and Paleontological Resources Assessment performed by Material Culture Consulting, Inc. (MCC). The Sacred Land Files search did not identify any previously known tribal cultural resources within the project area. The NAHC provided MCC with contact information for five tribes/individuals to reach out to for additional information on October 23, 2019. MCC sent letters on October 25, 2019 to all five Native American contacts, requesting any information related to cultural resources or heritage sites within or adjacent to the project area. Additional attempts at contact by letter, email or phone call were made on November 6 and November 14, 2019. As a result of this outreach effort, MCC received one response from Native American Tribes or individuals. MCC did not conduct formal consultation with any of the Native American representatives (MCC 2019).

Pursuant to the requirements of Assembly Bill 52, the County sent informational letters about the proposed project and requests for consultation to each tribe on the County's list of tribes requesting consultation on December 12, 2019. The County received a response from the Gabrieliño Band of Mission Indians - Kizh Nation requesting consultation, which concluded on January 31, 2020. No information regarding tribal cultural resources (TCRs) on the Project site or vicinity was provided. However, to mitigate impacts of inadvertently discovered TCRs during construction earthmoving operations, Mitigation Measure TR-1 has been included in this Initial Study which implements tribal monitoring prior to initial site clearing (such as pavement removal, grubbing, tree removals) and ground-disturbing activities that cause excavation to depths greater than artificial fill into previously undisturbed soils. Thus, impacts related to California Native American tribes would be less than significant with implementation of Mitigation Measure TR-1.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

MM TR-1: **Native American Monitoring**. Prior to the issuance of any permits for initial site clearing (such as pavement removal, grubbing, tree removals) or issuance of permits allowing ground-disturbing activities that cause excavation to depths greater than artificial fill (including as boring, grading, excavation, drilling, potholing or auguring, and trenching), the County shall ensure that the project applicant/developer retain qualified Native American Monitor(s). The monitor(s) shall be approved by the tribal representatives of the Gabrieliño Band of Mission Indians - Kizh Nation and be present on-site during initial site clearing and construction that involves ground disturbing activities that cause excavation to depths greater than artificial fill

identified herein. The monitor shall conduct a Native American Indian Sensitivity Training for construction personnel. The training session includes a handout and focus on how to identify Native American resources encountered during earthmoving activities and the procedures followed if resources are discovered. The Native American monitor(s) shall complete monitoring logs on a daily basis, providing descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when grading and excavation activities of native soil (i.e., previously undisturbed) are completed, or when the tribal representatives and monitor have indicated that the site has a low potential for tribal cultural resources, whichever occurs first.

In the event that tribal cultural resources are inadvertently discovered during ground-disturbing activities, work must be halted within 50 feet of the find until it can also be evaluated by a qualified archaeologist in cooperation with a Native American monitor to determine if the potential resource meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)) and/or unique resource (Public Resources Code 21083.2(g)). Construction activities could continue in other areas. If the find is considered an "archeological resource" the archaeologist, in cooperation with a Native American monitor shall pursue either protection in place or recovery, salvage and treatment of the deposits. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If unique a tribal cultural resource cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the Project applicant's expense. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation in an established accredited professional repository.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Less Than Significant Impact.

Water Infrastructure
The Metropolitan Water District (MWD) delivers an average of 1.7 billion gallons of water per day to a service area of approximately 26 member agencies – 14 cities, 11 municipal water districts, and one county water authority which in turn provides water to more in the Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura counties. The Metropolitan Water District is comprised of numerous facilities including the Colorado River Aqueduct (423,606 million gallons annual capacity), sixteen hydroelectric facilities, five water treatment plants, and nine reservoirs (with a total capacity of 349,312 mgd). The average daily delivery of the MWD is 1,372 mgd.

The proposed project would result in the construction of 29 new single-family residences. Water demand associated with the proposed project would be typical of residential water usage in the unincorporated areas of the County. The project would add additional connections to water services for the new residential development.

As shown in Table UT-1, the proposed project would generate a water demand of approximately 7,000 gallons per day (gpd). Based on the estimates provided, implementation of the project is not expected to measurably increase the demand for water for the MWD's Central Basin.

Table UT-1: Proposed Project Estimated Water Generation

Residential Units	Size	Water Demand Rate (gpd/unit)	Total Water Demand (gpd)
Three Bedroom Units	14 du	300 gpd/du	4,200
Five Bedroom Units	15 du	300 gpd/du	4,500
Total Project Water Generation: 8,700 gpd/du			

Source: United Civil, Inc. 2019b

Of the total available capacity for the nine reservoirs of MWD, the proposed project would account a negligible percent, and no new or expanded water treatment facilities would be required. Therefore, with respect to water treatment facilities, the proposed project would have a less than significant impact.

Wastewater Treatment
A Sewer Area Study was conducted by United Civil, Inc. for the proposed project. The findings of the Sewer Area Study are detailed in Appendix J.

Sewage from the project site is conveyed via County sewer infrastructure to the Los Coyotes Water Reclamation Plan (WRP), which serves District 18 of the Sanitation District of Los Angeles County (LACSD). As part of the project, new on-site wastewater collection infrastructure would be constructed. The Los Coyotes WRP treats an average daily flow of 37.5 mgd and serves approximately 370,000 people (LACSD 2018). A project would normally have a significant wastewater impact if a project would cause a measurable increase in wastewater flows to a point where sewer capacity is constrained or sewer capacity may become constrained, or if the project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant.

The proposed project would result in a new source of wastewater generated at the project site with the development of 29 new single-family residences. This analysis conservatively assumes that 100 percent of the projects water demand would be generated as wastewater. As shown in Table UT-1, the proposed project would generate approximately 8,700 gpd of wastewater. The project is expected to constitute a negligible amount of wastewater treated at the Los Coyotes WRP. Due to the capacity of the Los Coyotes WRP, which treats 37.5 mgd of wastewater, the proposed project represents a fraction of one percent of the available capacity. Therefore, impacts to sewer capacity and infrastructure would be less than significant and no mitigation would be required.

Stormwater Drainage
The proposed project would increase the overall impervious surface area on the project site compared to existing condition. As discussed in Section 4.10, construction and operation BMPs would be implemented as a standard condition of the proposed project. In addition, the entire project site is proposed to bio-filtrate 1.5 times the Stormwater Quality Design Volume (SWQDv) before discharging the treated stormwater runoff from all Filterra units to an existing 24-inch storm drainpipe on Richvale Drive. With implementation of BMPs, the proposed project would install drainage features that would handle and treat all potential stormwater runoff from the project site. Furthermore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities beyond the on-site improvements included as part of the proposed project. Therefore, impacts to stormwater drainage facilities would be less than significant and no mitigation would be required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Less Than Significant Impact. As previously stated in Response 4.19(a), the Metropolitan Water District (MWD) delivers an average of 1.7 billion gallons of water per day to a service area of approximately 26 member agencies – 14 cities, 11 municipal water districts, and one county water authority which in turn provides water to more in the Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura counties. As shown in UT-1 above, the proposed project's net increase for water demand would be 7,000

gallons per day. The proposed project is not expected to measurably increase the demand for water provided from local groundwater, water imported through the MWD, and accounts for a negligible percentage of water demand relative to available capacity. Additionally, according to the MWD's Annual Report for 2018, ongoing conservation efforts and water use efficiency achievements, along with record precipitation in northern California has allowed the MWD to continue rebuilding storage in 2017. In fact, Metropolitan stored nearly 1.2 million acre-feet (MAF), the largest annual increase to storage in its history. At the end of 2017, Metropolitan had total storage reserves of 3.1 MAF, consisting of 2.5 MAF of dry-year storage and 630,000 AF of emergency storage. This continues an effort that began in CY 2016 following three consecutive years of storage withdrawals during the drought. Despite below normal precipitation during the winter of 2017/18, Metropolitan does not anticipate a significant change in storage levels (MWD 2018). Therefore, water demand from the proposed project would be within the County's current and projected water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Thus, impacts related to water supplies would be less than significant, and no mitigation would be required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Less than Significant Impact. The projected increase in population of 87 residents would not raise the capacity to serve the project's projected wastewater discharge demand in addition to the provider's existing commitments beyond a significant level, rendering the capacity to serve inadequate. As part of the project, new on-site wastewater collection infrastructure would be constructed. The Los Coyotes WRP has a design capacity of 37.5 mgd and currently processes an average flow of 21.2 mgd. As noted in the LACSD Sewer System Management Plan (SSMP), the Sanitation Districts have maintained a Sewer System Evaluation and Capacity Assurance Plan (SSECAP) since the 1950's. The SSECAP is comprised of several programs, annual reports, and a Capital Improvement Plan (CIP) that are designed to evaluate sewer system capacity and prioritize and budget relief projects for key sewer system components. As part of the SSECAP, the Sanitation Districts have invested approximately $138 million over the past 10 years to increase the system's hydraulic capacity. The Sanitation Districts' sewer system has sufficient capacity to handle peak dry weather flows. In addition, there are also no pump stations that currently pose a risk of capacity related overflows (LACSD 2019). Therefore, the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects. All sewage generated on-site would be discharged to sanitary sewer lines and conveyed into sewer mains for treatment at the County's wastewater treatment facility. The quality of sewage discharged from indoor plumbing fixtures would be similar to the quality of other residential dwelling units in the vicinity that currently discharge to the County's sewer system. The project would not result in any of the wastewater treatment plants discussed above exceeding wastewater treatment requirements. Therefore, impacts related to wastewater generation are less than significant, and no mitigation would be required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☐

Less Than Significant Impact.

Although the County provides solid waste management services to the project site and unincorporated areas, disposal destinations for solid waste would be at the discretion of the private haulers, who maintain disposal agreements with landfill operators. The County has numerous private haulers to collect residential industrial and commercial waste that is ultimately disposed of at one of the County's 12 operating landfills.

Solid waste generated on the project site is anticipated to be disposed of at the Savage Canyon Landfill. The landfill currently accepts residential, commercial, and construction waste. The Savage Canyon Landfill is jointly operated by the City of Whittier and the Los Angeles County. The Savage Canyon Landfill is permitted to accept 3,350 tons per day of solid waste and is permitted to operate through 2055. In Quarter 4 of 2018, the maximum tonnage received was 2,034 tons per day. Thus, the facility had additional capacity of approximately 1,316 tons per day (CalRecycle 2020).

The proposed project would follow all applicable solid waste policies and objectives that are required by law, statute, and regulation. The project's solid waste disposal needs would be directed to the local recycling facilities and landfills described above. As shown in UT-2 below, the proposed project's net operational solid waste generation is estimated to be 354.67 pounds per day. However, at least 75 percent of the solid waste is required by AB 341 to be recycled, which would reduce the volume of landfilled solid waste to approximately 89 pounds per day. As the Savage Canyon Landfill has an additional capacity of approximately 1,316 tons per day, the solid waste generated by the project would be within the capacity of the landfill. Thus, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and the project would not impair the attainment of solid waste reduction goals. Impacts related to landfill capacity would be less than significant.

Table UT-2: Expected Operational Solid Waste Generation

Type of Use	Size	Solid Waste Generation Rate (lbs/unit/day)	Total Solid Waste Generated (lbs/day)
Residential	29 du	12.23 lbs/unit/day	354.67 lbs/day
Total Project Solid Waste Generation: 354.67 lbs/day			

Source: City of Los Angeles, CEQA Thresholds Guide, 2006, Page M.3-2

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ☐ ☐ ☒ ☐

Less Than Significant Impact. The California Integrated Waste Management Act of 1989 (AB 939) changed the focus of solid waste management from landfill to diversion strategies (e.g., source reduction, recycling, and composting). The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the State that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required CalRecycle to develop strategies to achieve the State's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies to assist the State in reaching the 75

percent goal by 2020.

The proposed project would be required comply with Section 20.72.193 of the County's Code, which requires that "In no event shall the waste collector dispose of any recyclable materials in a traditional landfill or trash collection facility unless otherwise approved by the director of public works". The proposed project would also be required to comply with AB 341, as well as all federal, State, and local regulations related to solid waste, including Section 20.72.195 of the County's Code, included as PPP UT-1, which requires that waste collector haulers that would serve the project site would provide a public awareness program for their customers, which shall include, but is not limited to, literature and other information designed to promote public participation and awareness in the community for the need, benefits and availability of recycling services. Furthermore, the proposed project would comply with all standards related to solid waste diversion, reduction, and recycling during project construction and operation. Therefore, the proposed project is anticipated to result in less than significant impacts related to potential conflicts with federal, State, and local management and reduction statutes and regulations pertaining to solid waste, and no mitigation would be required.

Existing Plans, Programs, or Policies

PPP UT-1 The project is required to comply with Section 20.72.195 of the County's Code, which requires that waste collector haulers that would serve the project site would provide a public awareness program for their customers, which shall include, but is not limited to, literature and other information designed to promote public participation and awareness in the community for the need, benefits and availability of recycling services.

PPP UT-2 Prior to issuance of construction, demolition, or grading permits, the Property Owner/Developer shall submit a Recycling and Reuse Plan for approval by the Environmental Programs Division in compliance with the County's Green Building Standards Code.

Mitigation Measures

None.

20. WILDFIRE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less than Significant Impact. According to the CAL FIRE Fire Hazard Severity Zone map, the project site is not within an area identified as a Fire Hazard Area that may contain substantial fire risk or a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2019). The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. As discussed in Section 4.10, the proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Additionally, the proposed project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would substantially impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Therefore, impacts related to emergency response and evacuation plans associated with construction of the proposed project would be less than significant.

The proposed project does not include any changes to public or private roadways that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Further, the proposed project would not obstruct or alter any transportation routes that could be used as evacuation routes during emergency events. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the Los Angeles County Fire Department (LACFD). The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to County and Fire Department's standards. The proposed project would provide adequate emergency access to the site via driveways from Grovedale Drive, Richvale Drive, and the proposed new public road ("A" Court); the driveways would connect to the public roadways to ensure access for emergency vehicles within the project site. Further, access to and from the project site for emergency vehicles would be reviewed and approved by the LACFD as part of the project approval process to ensure the proposed project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and no mitigation is required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

Less Than Significant Impact. As discussed in Section 4.14, the project is anticipated to result in a population increase of approximately 87 residents. As stated previously, the project site is not located within a VHFHSZ. Additionally, the project site is within an urbanized residential area, therefore lacking the combustible materials and vegetation necessary for the uncontrolled spread of a wildfire.

The project site is relatively flat and there are limited elevation changes in the project vicinity. The project proposes to construct the 29 new single-family residences in an area characterized by existing residential and educational uses. As such, the project itself would not exacerbate wildfire risks as compared to existing conditions because it is representative of existing development in the area and is replacing existing institutional buildings. Therefore, due to slope, prevailing winds, location, and other factors, the proposed project would not exacerbate wildfire risks, and thereby would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and no mitigation would be required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ☐ ☐ ☐ ☒

No Impact. The project does not require the installation or maintenance of associated infrastructure (including roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or that would result in impacts to the environment. Although the project includes a new public road ("A" Court), as well as new driveways within the residential development, the project does not include any changes to public or private roadways that would that would exacerbate fire risk or result in impacts to the environment. Although utility improvements, including domestic water, recycled water, sanitary sewer, and storm drain lines, are proposed as part of the project, these utility improvements would be underground and would not exacerbate fire risk. Furthermore, project design and the implementation of utility improvements would be reviewed and approved by the County part of the project approval process to ensure the proposed project is compliant with all applicable design standards and regulations. Therefore, the proposed project would not include infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities), that would exacerbate fire risk or that would result in impacts to the environment.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ☐ ☐ ☒ ☐

Less than Significant Impact. According to the Federal Emergency Management Agency (FEMA), the project site not within a Floodway, 100-year floodplain, or 500-year floodplain (FEMA 2019). Additionally, in its existing condition, the project site is relatively flat with limited elevation changes present on the site.

As established in Section 4.10, during project construction, soil would be compacted and drainage patterns would be temporarily altered due to grading, and there would be an increased potential for flooding compared to existing conditions. However, as discussed previously, construction BMPs would be identified and implemented as part of the proposed project to comply with County regulations. The construction BMPs would control and direct surface runoff to prevent flooding, and as such, project construction would not expose people or structures to significant risks related to downslope and downstream flooding. Therefore, impacts would be less than significant.

During operation, the proposed project would not substantially alter the existing on-site drainage patterns. Compliance with the proposed operational BMPs would ensure on-site storm drain facilities would be sized to accommodate stormwater runoff from the project site, so that on-site flooding would not occur. Operation

of the project would not expose people or structures to significant risks, including downslope or downstream flooding. Therefore, impacts would be less than significant.

As discussed in Section 4.7, there are no landslide zones close to or within the boundaries of the project site. The project site is relatively flat with limited elevation changes; therefore, the risk of slope failure represents a limited level of concern on the project site. Further, with implementation of the recommendations in the project's Geotechnical Study, potentially significant impacts related to unstable soils or geologic units that would become unstable as a result of the project resulting in on- or off-site landslides would be reduced to a less than significant level. Therefore, with compliance with County regulations and implementation recommendations in the project's Geotechnical Study, the project would not expose people or structures to significant risks, including downslope or downstream landslides, and no further mitigation would be required.

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

No Impact. The project site is within an urbanized residential area of unincorporated Los Angeles County. The project site is not adjacent to any wildland areas. According to the CAL FIRE Fire Hazard Severity Zone map, the project site is not within an area identified as a Fire Hazard Area that may contain substantial fire risk or a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2019). As a result, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impacts are anticipated, and no mitigation would be required.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

Less Than Significant Impact. Based on the discussion in Section 4.4, the proposed project is anticipated to result in less than significant impacts related to habitat, wildlife species, and/or plant and animal communities. The proposed project would not eliminate a plant or animal community, nor would it substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Section 4.5, the project site does not contain any buildings or structures that meet any of the California Register of Historical Resources (California Register) criteria or qualify as "historical resources" as defined by CEQA. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource.

As discussed in Section 4.18, due to the developed nature of the project site, it is unlikely that tribal cultural resources are present. However, tribal consultation is ongoing as part of the CEQA process in compliance with AB 52. In the event that tribal cultural resources are identified during the tribal consultation process, the County would work with the tribes to address their concerns.

For the reasons stated above, the project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, Impacts would be less than significant, and no mitigation would be required.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated. The project involves construction of 29 new single-family homes, drainage and utility infrastructure, and a public road ("A" Court). The site is currently developed with educational uses and is surrounded by residential uses.

As presented in this IS/MND, potential project-related impacts are either less than significant or would be less than significant with mitigation incorporated. Based on the analysis contained in this IS/MND, project-related impacts would be reduced to less than significant levels with the incorporation of mitigation measures. Given that the potential project-related impacts would be mitigated to a less than significant level, implementation of the proposed project would not result in impacts that are cumulatively considerable when evaluated with the impacts of other current projects, or the effects of probable future projects. Therefore, the proposed project's contribution to any significant cumulative impacts would be less than cumulatively considerable. As discussed in Sections 4.1 through 4.20 of this IS/MND, mitigation would be required and incorporated as necessary. Therefore, impacts would be less than significant with mitigation incorporated.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated. Based on the project description, as well as the preceding responses in Sections 4.1 through 4.20 of this IS/MND, implementation of the proposed project would not cause substantial adverse effects to human beings because all potentially significant impacts of the proposed project would be mitigated to a less than significant level. Therefore, since all potentially significant impacts of the proposed project are expected to be mitigated to a less than significant level, implementation of the proposed project would not cause substantial adverse effects on human beings.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
PROJECT NO. 2019-000063-(4) / PERMIT NO. RPPL 2019000014 (TR82457) / ENV NO. 2019000128

#	Environmental Factor	Mitigation	Action Required	When Monitoring to Occur	Responsible Agency or Party	Monitoring Agency or Party
MM-BIO-1	Biological Resources	Migratory Bird Treaty Act. In the event that vegetation and tree removal should occur between February 1st and August 31st, the Project Applicant (or its contractor) shall retain a qualified biologist to conduct a nesting bird survey no more than 3 days prior to commencement of construction activities. The nesting survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related construction activities such as noise, human activity, and dust. If active nesting of birds is observed within 100 feet of the designated construction area prior to construction, the biologist shall establish suitable buffers around the active nests (e.g., as much as 500 feet for raptors and 300 feet for nonraptors [subject to the recommendations of the qualified biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Prior to commencement of grading activities and issuance of any building permits, the Director of the Community Development Department, or designee, shall verify that all Project grading and construction plans include specific notes regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the	Breeding Bird Survey	Prior to issuance of a grading permit.	Applicant and subsequent owner(s)	Regional Planning
MM-GEO-1	Geology / Soils	The Project Applicant shall implement all recommendations in the approved Geotechnical Due Diligence and Preliminary Infiltration Study prepared for the project site by GeoTek, Inc. and dated April 20, 2018 during site preparation, grading, and construction, and compliance with the approved Geotechnical Investigation shall be verified in the field by a qualified representative. The Project Applicant shall demonstrate to the County that all or equivalent recommendations in the Geotechnical Due Diligence and Preliminary Infiltration Study, or any updates to those reports have been incorporated into the project's design and grading plans.	Geotechnical Report	Prior to issuance of a grading permit.	Applicant and subsequent owner(s)	Public Works
MM-HAZ-1	Hazards / Hazardous Materials	Prior to issuance of grading permits, the Property Owner/Developer shall submit site development plans to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) for Construction Site Plan review. Property Owner/Developer shall implement any actions recommended by DOGGR, including but not limited to, well abandonment to current standards, venting, leak testing and setbacks. Documentation of compliance shall be provided to the County of Los Angeles for	Submit and approval of site development plans to DOGGR	Prior to grading permit	Applicant and subsequent owner(s)	Regional Planning
MM-HAZ-2		The Property Owner/Developer shall conduct a Phase II ESA and submit evidence that any detected constituents detected are in concentrations below the maximum allowable concentration levels for residential development per California Department of Toxic Substances Control (DTSC) Residential Screening Level thresholds and do not pose a significant health risks to future residents. Contaminated soils shall be remediated or removed from the site. If any testing sites reveal contamination in excess of the DTSC Residential Screening Level thresholds, measures to minimize intrusion of pollutants into residences shall be applied as determined by the hazardous materials	Phase II ESA	Prior to issuance of demolition permit	Applicant and subsequent owner(s)	Regional Planning/Public Health
MM-HAZ-3		Construction at the project site shall be conducted under a project-specific Construction Risk Management Plan (CRMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified and to address the possibility of encountering unknown contamination or hazards in the subsurface. The CRMP shall summarize soil and groundwater analytical data collected on the project sites during past investigations and during site investigation activities; delineate areas of known soil and groundwater contamination, if applicable; and identify soil and groundwater management options for excavated soil and groundwater, in compliance with local, state, and federal statutes and regulations. The CRMP shall: 1) Provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively. 2) Require the preparation of a project-specific Health and Safety Plan that identifies hazardous materials present, describes required health and safety provisions and training for all workers potentially exposed to hazardous materials in accordance with state and federal worker safety regulations, and designates the personnel responsible for Health and Safety Plan implementation. 3) Require the preparation of a contingency plan that shall be applied should previously unknown hazardous materials be encountered during construction activities. The contingency plan shall include provisions that require collection of soil and/or groundwater samples in the newly discovered affected area by a qualified environmental professional prior to further work, as appropriate. The analytical results of the sampling shall be reviewed by the qualified environmental professional and submitted to the appropriate regulatory agency. The environmental professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications, in accordance with local, state, and federal requirements. Work shall not resume in the area(s) affected until these recommendations have been implemented under the oversight of the County or regulatory agency, as appropriate. (4) Designate personnel responsible for implementation of the CRMP. The CRMP shall be submitted to the County for review and approval prior to the issuance of construction and demolition permits. This measure would reduce the hazards and hazardous materials impact to a less-than-significant level.	CRMP	prior to construction	Applicant and subsequent owner(s)	Public Health
MM-TR-1	Tribal Resources	Prior to the issuance of any permits for initial site clearing (such as pavement removal, grubbing, tree removals) or issuance of permits allowing ground-disturbing activities that cause excavation to depths greater than artificial fill (including as boring, grading, excavation, drilling, potholing or auguring, and trenching), the County shall ensure that the project applicant/developer retain qualified Native American Monitor(s). The monitor(s) shall be approved by the tribal representatives of the Gabrieliño Band of Mission Indians - Kizh Nation and be present on-site during initial site clearing and construction that involves ground disturbing activities that cause excavation to depths greater than artificial fill identified herein. The monitor shall conduct a Native American Indian Sensitivity Training for construction personnel. The training session includes a handout and focus on how to identify Native American resources encountered during earthmoving activities and the procedures followed if resources are discovered. The Native American monitor(s) shall complete monitoring logs on a daily basis, providing descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when grading and excavation activities of native soil (i.e., previously undisturbed) are completed, or when the tribal representatives and monitor have indicated that the site has a low potential for tribal cultural resources, whichever occurs first. In the event that tribal cultural resources are inadvertently discovered during ground-disturbing activities, work must be halted within 50 feet of the find until it can also be evaluated by a qualified archaeologist in cooperation with a Native American monitor to determine if the potential resource meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)) and/or unique resource (Public Resources Code 21083.2(g)). Construction activities could continue in other areas. If the find is considered an "archeological resource" the archaeologist, in cooperation with a Native American monitor shall pursue either protection in place or recovery, salvage and treatment of the deposits. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If unique a tribal cultural resource cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the Project applicant's expense. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation in an established accredited professional repository.	Native American Monitor	Prior to issuance of permits for initial-site clearing.	Applicant and subsequent owner(s)	Regional Planning
MM-MC	Mitigation Compliance	As a means of ensuring compliance of above mitigation measures, the applicant and subsequent owner(s) are responsible for submitting compliance report to the Department of Regional Planning for review, and for replenishing the mitigation monitoring account if necessary until such as all mitigation measures have been implemented and completed.	Submittal and approval of compliance report and replenishing mitigation monitoring account	Yearly and as required until all measures are completed.	Applicant and subsequent owner(s)	Regional Planning

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APPENDICES

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APPENDIX A: SUMMARY OF CALEEMOD MODEL RUNS AND OUTPUT

CalEEMod Emission Summary

TO: Konnie Dobreva, EPDS
FROM: Vince Mirabella
DATE: October 25, 2019

SUBJECT: Summary of CalEEMod Model Runs and Output for the Carden School Residential Project

SECTION 1: PROJECT INFORMATION

1.1 - Project Name

19-073 Carden School Residential Project

1.2 - Project Location

The project site is located at 11537 Grovedale Drive, Whittier, CA 90604 (APN: 8039-014-027) in the unincorporated area of Los Angeles County.

1.3 - Project Description

The project would demolish the existing school uses on the northern 5.8-acre portion of the site (the Carden Academy of Whittier) and associated accessory structures on the project site and subdivide the site into 31 separate lots. The project site would be developed with 29 single-family homes, one open space lot, one lot for stormwater treatment, and a new public road.

1.4 - Purpose of the Report

This report has been prepared to summarize the results of estimates of project construction and operational criteria pollutant and greenhouse gas (GHG) emissions and energy usage using the CalEEMod land use emission model for use in preparing CEQA regulatory documentation. The project emissions were estimated for both the existing school land use and the project design and the net emissions were compared to the recommended air quality significance thresholds adopted by the South Coast Air Quality Management District (SCAQMD).

1.5 - Conclusions

1.6 Conclusions

- The construction and operation of the project would not exceed any project-level criteria pollutant regional or localized emission significance threshold adopted by the SCAQMD.

- The construction and operation of the project would not exceed the greenhouse gas significance threshold adopted for this project

- The construction and operation of the project would not result in a cumulatively significant impact on the region's air quality

- The construction and operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, associated with project design, project location, the use of electricity and/or natural gas, and/or the use of fuel by vehicles anticipated to travel to and from the project.

SECTION 2: CALEEMOD EMISSION ESTIMATES – CRITERIA POLLUTANTS

This section quantifies the project construction and net operational criteria pollutant emissions[1] for the existing school land use and the project design and compares the net emissions to significance thresholds adopted by the SCAQMD.

2.1 - Significance Thresholds-Criteria Pollutants

The SCAQMD has adopted a number of criteria pollutant significance thresholds that apply to the construction and operation of projects located within the jurisdiction of the SCAQMD.

2.1.1 Regional Emission Significance Thresholds

The incremental regional air quality impacts of an individual project are generally very small and difficult to measure. However, the SCAQMD's regional significance thresholds define levels of maximum daily emissions whose exceedance by a project's construction or operation may add to the overall emission burden within the SCAQMD and impact the attainment and maintenance of ambient air quality standards.

The regional thresholds apply to criteria pollutant emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), oxides of sulfur (SO_x), particulate matter (PM_{10} and $PM_{2.5}$), and reactive organic gases (ROG). The quantification of regional emissions includes those project emissions generated from both onsite emission sources (i.e., offroad construction equipment, fugitive dust) and offsite emission sources (vehicle travel away from the project). The SCAQMD's regional significance thresholds are shown in Table 1.

Table 1: SCAQMD Regional Emission Significance Thresholds

Air Pollutant	Maximum Daily Emissions (pounds/day)	
	Construction	Operation
Carbon Monoxide	550	550
Oxides of Nitrogen	100	55
Sulfur Oxides	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Reactive Organic Gases	75	55
Source: SCAQMD[2]		

[1]Criteria pollutants are the only air pollutants with national air quality standards that define allowable concentrations of these substances in ambient air. Criteria pollutants include carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_x), and particulate matter (PM_{10} and $PM_{2.5}$). Note that ozone is another criteria pollutant; however in terms of defining significance thresholds, ozone is represented as a thresholds by its precursor components, oxides of nitrogen (NO_x) and reactive organic gases.

[2] SCAQMD April 2019. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

2.1.2 Localized Significance Thresholds

Project-related construction or operational air emissions may have the potential to exceed the State and national air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAQMD. As a result, the SCAQMD has also adopted localized significance thresholds (LSTs) that represent the maximum rates of daily construction or operational emissions from a project site that would not result in air pollutant levels that would exceed a national or State ambient air quality standards (SCAQMD 2003[3],2008[4]). There are three principal differences between the regional thresholds and the LSTs. First, the regional thresholds include all sources of project construction and operational emissions generated from both onsite and offsite emission sources whereas the LSTs only consider the emissions generated from onsite emission sources. Second, the LSTs only apply to CO, NO_X, and particulate matter (PM_{10} and $PM_{2.5}$) while the regional thresholds include both ROG and SO_x. Third, the regional thresholds apply to emission sources located anywhere within the SCAQMD whereas the LSTs are location dependent and also depend on the size of the project, and emission location relative to the nearest sensitive receptor[5].

For purposes of the localized assessment, the SCAQMD provides screening look-up tables for projects that disturb less than or equal to 5 acres in size in a day. The look-up tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NO_x, PM_{10}, and $PM_{2.5}$ from a project could result in a significant impact to the local air quality. The appropriate LSTs can be determined based on the project's source receptor area (SRA)[6], size, and distance to nearest sensitive receptor. The SCAQMD has divided the SCAQMD into 37 SRAs each with a set of LSTs that depend on the air pollutant, project size, and distance to the nearest sensitive receptor. The project site is located within SRA 5, Southeast Los Angeles County.

LSTs for Construction

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (SCAQMD 2011)[7]. The California Emissions Estimator Model (CalEEMod) model calculates construction emissions based on the number and types of construction equipment, equipment hours, rates of emission, and the maximum daily disturbance activity possible for each piece of equipment for several land use projects and their development intensity. The maximum disturbed area during construction serves as a factor in determining the project size value of the LSTs for construction. Table 2 shows the maximum daily disturbed acreage during demolition, site preparation, and grading based on the types and numbers of construction equipment used for each construction activity as identified by the CalEEMod model. As shown in Table 2, the maximum daily area disturbed during construction is 3.5 acres that occurs during the site preparation activity. Therefore, the maximum daily disturbed area during construction was set as 3.5 acres for the localized assessment of construction impacts.

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[3] SCAQMD 2003. Final Localized Significance Threshold Methodology. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

[4] SCAQMD 2008: Final Localized Significance Threshold Methodology. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf

[5] A sensitive receptor is defined as an individual who is most health wise susceptible to exposures to air pollutants including children the elderly, and adults with chronic health issues. Such receptors include residences, schools, elderly care centers, and hospitals.

[6] A source-receptor area (SRA) is a geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts

[7] SCAQMD 2011: Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf

Table 2: Equipment Specific Site Preparation and Grading Disturbed Area Rates

Activity	Equipment Type	Equipment Quantity	Acres Graded per 8-hour Day	Operating Hours per Day	Acres Graded per Day
Demolition	Concrete/Industrial Saws	1	0	8	
	Excavator	3	0		
	Rubber Tired Dozers	2	0.5	1	
				Total:	1 acre
Site Preparation	Rubber Tired Dozer	3	0.5	8	1.5
	Crawler Tractor	4	0.5	8	2.0
				Total	.....3.5 acres
Grading	Excavators	1	0	8	0
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractor	3	0.5	8	1.5
				Total	.....2.5 acres

Source: The construction inventory developed for the Demolition, Site Preparation and Grading activities is presented Table 6 below as derived from the CalEEMod model.

The specification of LSTs is also dependent on the distance to the nearest sensitive receptor. The nearest sensitive receptor area to the project are the existing residences located adjacent to the project's western boundaries (less than 10 meters distance). Other residential sensitive receptors are locate immediately to the north across Richvale Drive and immediately to the east across Groveland Avenue. The distance to the sensitive receptor was set as 25 meters the shortest distance contained in the SCAQMD's LST lookup tables as per the SCAQMD LST guidance. Table 3 provides the applicable construction LSTs for this project.

Table 3: Construction Localized Significance Thresholds

NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)
143	1,170	11	6

LSTs for SRA 5, project area of 3.5 acres and a receptor distance of 25 meters. The LSTs were interpolated from the 2 and 5 acre LSTs provided in the LST lookup tables.

LST for Operation

As noted earlier, the SCAQMD has defined LSTs for project areas up to 5 acres in size. The project is 5.8 acres. To provide a conservative estimate of the operational LSTs for this project, the LSTs were based on a 5 acre project since if LSTs were available to a 5.8 acre project, such LSTs would be larger than the LSTs for a 5 acre project since the LSTs increase with project size. Therefore, the use of the LSTs for a 5-acre

project provides a conservative estimate of the project's operational LSTs. Table 4 provides the operational LSTs for this project.

Table 4: Operational Localized Significance Thresholds

NOx (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
172	1,480	4	2
LSTs for SRA 5, project area of 5 acres and a receptor distance of 25 meters			

2.1.3 Cumulative Significance Thresholds

The SCAQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (SCAQMD 2003)[8]. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Therefore, the project-specific and cumulative significance thresholds are the same. As a result, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

The South Coast Air Basin where the project is located is currently designated by the US Environmental Protection Agency as nonattainment for ozone, PM_{10}, and $PM_{2.5}$. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the air basin, and this regional impact is a cumulative impact. In other words, new development projects (such as the proposed project) within the air basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects.

The determination of cumulative air quality impacts for construction and operational emissions is based on whether the project would result in regional emissions that exceed SCAQMD regional thresholds of significance for construction and operations on a project level. Projects that generate emissions below the SCAQMD regional significance thresholds would be considered consistent with regional air quality planning efforts and would not generate cumulatively considerable emissions.

2.2 - Criteria Pollutant Emission and Impact Estimates

2.1.1 Existing Emissions

The existing project land use consists of the Carden Academy of Whittier school and associated buildings. The school consists of grades K-8 serving 100 students. The operation of the school generates 411 vehicle

[8] South Coast Air Quality Management District (SCAQMD) 2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution

trips per day as per the project trip generation memorandum. The emissions from the operation of the school were estimated using the CalEEMod land use model.

2.1.2 Project Emissions

Construction

*Assumption***s**

- Construction Schedule: Third quarter 2020 to end of 2021; note that the project description calls for several building phases over a span of 2 years; however, the construction duration assumed in this assessment is based on the 15-month default building schedule contained in the CalEEMod model for a land use and development intensity representative of this project; such a "condensed" construction schedule will provide a conservative (in terms of overestimating emissions) estimate of daily emissions since the emissions will be spread over a shorter number of days compared (15 months) compared to the planned schedule (24 months)

- Soil export (572 cubic yards) with associated haul truck trips

- Demolition of the of the existing structures, rectangular concrete pads, asphalt hardscape, sheds; removal of the residential utility infrastructure;

- Fugitive dust mitigation applied as per SCAQMD Rule 403 – Fugitive Dust

- Construction equipment inventory derived from the CalEEMod model default equipment

Construction Emissions

The project's conceptual construction schedule and equipment inventory are provided in Table 5 and Table 6, respectively based on the default schedule and inventory provided in the CalEEMod model for the project size and land use. The project's construction vehicle trips are shown in Table 7.

Table 5: Construction Schedule

Activity	Start Date	End Date	Total Days
Demolition	10/01/2020	10/28/2010	20
Site Preparation	10/29/2020	11/11/2020	10
Grading	1/12/2020	12/09/2020	20
Building Construction	12/10/2020	10/27/2021	230
Paving	10/28/2021	11/24/2021	20
Architectural Coating	11/25/2021	12/22/2021	30
Source: see CalEEMod output			

Table 6: Construction Equipment Inventory

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor
Demolition	Concrete/industrial saws	1	8	81	0.73
	Excavator	3	8	158	0.36
	Rubber Tired Dozer	2	8	247	0.40
Site Preparation	Rubber Tired Dozer	3	8	247	0.40
	Crawler Tractor	4	8	212	0.43
Grading	Excavators	1	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.40
	Crawler Tractor	3	8	212	0.43
Building Construction	Crane	1	7	231	0.29
	Forklifts	3	8	89	0.20
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
	Generator Set	1	8	84	0.74
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38
Architectural Coating	Air Compressor	1	6	78	0.48
Source: see CalEEMod output					

Table 7: Construction Vehicle Trips

Activity	Construction Trips per Day		Total Trips
	Worker	Vendor	Haul
Demolition	15	0	612
Site Preparation	18	0	0
Grading	15	0	72
Building Construction	10	3	0
Paving	15	0	0
Architectural Coating	2	0	0
Source: see CalEEMod output			

The project's estimated maximum daily regional construction emissions are shown in Table 8. As noted from Table 8, the construction of the project would not exceed the SCAQMD's regional emission significance thresholds. Table 9 presents the results of the project's localized construction impact assessment.

Table 8: Estimated Maximum Daily Regional Construction Emissions

Construction Activity	Maximum Daily Regional Emissions[1] (pounds/day)					
	ROG	NO_X	C0	SO_x	PM_{10}	$PM_{2.5}$
2020						
Demolition	3.6	42.0	24.4	0.0	4.6	2.0
Site Preparation	5.7	63.9	23.2	0.1	9.0	6.1
Grading	3.6	43.5	17.6	0.0	4.1	2.8
Building Construction	2.2	19.6	17.3	0.0	1.2	1.1
Paving	0.0	0.0	0.0	0.0	0.0	0.0
Architectural Coating	0.0	0.0	0.0	0.0	0.0	0.0
Maximum Daily Emission	5.7	63.9	28.2	0.1	9.0	6.1
2021						
Building Construction	2.0	17.7	17.1	0.0	1.1	0.9
Paving	1.4	12.9	15.3	0.0	0.9	0.6
Architectural Coating	16.6	1.5	1.9	0.0	0.1	0.1
Maximum Daily Emission	16.6	17.7	17.1	0.0	0.9	0.9
2020 to 2021 Maximum Daily Emissions	**16.6**	**63.9**	**28.2**	**0.1**	**9.0**	**6.1**
SCAQMD Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
(ROG = reactive organic gases NOx = oxides of nitrogen PM10 = particulate matter 10 microns or less in diameter
PM2.5 = particulate matter 2.5 microns or less in diameter CO = carbon monoxide SO_x = sulfur oxides
Source: see CalEEMod model output

As noted from Table 9, the construction of the project would not exceed the SCAQMD's construction localized emission significance thresholds.

Table 9: Estimated Maximum Daily Localized Construction Emissions

Construction Activity	Maximum Daily Localized Emissions (pounds/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
2020				
Demolition	33.2	21.8	3.9	1.8
Site Preparation	63.8	22.4	8.8	5.9
Grading	42.6	16.7	3.9	2.7
Building Construction	19.2	16.8	1.1	1.1
Paving	0.0	0.0	0.0	0.0
Architectural Coating	0.0	0.0	0.0	0.0
Maximum Daily Emission	63.8	22.4	8.8	5.9
2021				
Building Construction	17.4	16.6	1.0	0.9
Paving	12.9	14.7	0.7	0.6
Architectural Coating	1.5	1.8	0.1	0.1
Maximum Daily Emission	17.4	16.6	0.7	0.9
2020 to 2021 Maximum Daily Emissions	**63.8**	**22.4**	**8.8**	**5.9**
SCAQMD Significance Thresholds	**143**	**1,170**	**11**	**6**
Emissions Exceed Thresholds?	**No**	**No**	**No**	**No**

Notes:
NOx = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter CO = carbon monoxide
Source: see CalEEMod model output

Project Operational Emissions

Long-term operational emissions would be generated resulting from the day-to-day operations. Operational emissions for land use development projects are typically distinguished as mobile, area, and energy-source emissions. Mobile-source emissions are those associated with automobiles that would travel to and from the project site. Area-source emissions are those associated with landscape maintenance activities and periodic architectural coatings. Energy-source emissions are those associated with natural gas and electricity consumption.

Mobile sources constitute the largest source of operational emissions. Based on the intended project land uses, the project is expected to generate 274 daily trips[9]. The project's operational vehicles were assumed to consist of light duty automobiles, light duty trucks, and medium duty trucks as representative of the types of vehicles that would be associated with a residential project. For the regional analysis of operational emissions, the vehicle trip distances for the various operational activities applied the default trip distances contained of the CalEEMod model. For the localized assessment, an average onsite vehicle

[9] Based on information derived from the Project Trip Generation Report

trip travel distance for both the existing land use and the project was assumed to be 0.1 miles based on the layout of the site plan (since only onsite emissions are counted in the localized assessment).

Table 10 summarizes the project's net regional operational emissions along with a comparison to the SCAQMD's regional significance thresholds. As noted in Table 10, the project's operational emissions, with the exception of ROG emissions, are less than or equal to the existing school's operational emissions and less than the significance thresholds. Table 11 provides the results of the localized net operational emissions along with a comparison to the SCAQMD localized significance thresholds. As noted from Table 11, the project's net operational emissions are substantially less than the SCAQMD localized thresholds.

Table 10: Estimated Maximum Daily Regional Operational Emissions

Operational Activity	Maximum Daily Regional Emissions (pounds/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area	1.2	0.0	2.4	0.0	0.0
Energy	0.0	0.2	0.1	0.0	0.0
Mobile	0.4	0.6	6.8	2.0	0.6
Total Project Operational Emissions	1.6	0.8	9.3	2.0	0.6
Existing Emissions	0.8	0.8	9.9	3.0	0.8
Net Operational Emissions	**0.8**	**0.0**	**(0.6)**	**(1.0)**	**(0.2)**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**

Notes:
NOx = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter ROG = reactive organic gases
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter CO = carbon monoxide
Source: see CalEEMod model output

Based on the information contained in Table 10 and Table 11, the operation of the project would not exceed the SCAQMD's regional or localized operational significance thresholds.

Table 11: Estimated Maximum Daily Localized Operational Emissions

Operational Activity	Maximum Daily Localized Emissions (pounds/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Area	0.0	2.4	0.0	0.0
Energy	0.2	0.1	0.0	0.0
Mobile	0.1	0.9	0.0	0.0
Total Project Operational Emissions	0.3	3.4	0.1	0.0
Existing Operational Emissions	0.1	1.4	0.0	0.0
Net Operational Emissions	**0.2**	**2.0**	**0.1**	**0.0**
SCAQMD Significance Threshold	**172**	**1,480**	**4**	**2**
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
NOx = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter CO = carbon monoxide
Source: see CalEEMod model output

2.1.3 Cumulative Impacts

Construction

As shown above in Table 8, the project's maximum daily regional construction emissions would not exceed SCAQMD's regional thresholds of significance. Therefore, the project's construction emissions would not result in a cumulatively considerable incremental contribution to the existing cumulative air quality impacts. Furthermore, all construction activities would comply with applicable SCAQMD rules and regulations, including Rule 403 to minimize fugitive PM dust emissions. Therefore, the cumulative impact from construction of the project would be less than significant.

Operations

As shown above in Table 10, the project's maximum daily operational emissions would not exceed SCAQMD's regional thresholds of significance. Therefore, the project's operational emissions would not result in a cumulatively considerable incremental contribution to the existing cumulative air quality impacts. Therefore, the cumulative impact from long-term operation of the project would be less than significant.

2.3 - Conclusions

The project's construction and operational emissions would not exceed the SCAQMD's established project level or cumulative regional or localized pollutant significant thresholds during either construction or operation.

SECTION 3: CALEEMOD EMISSION ESTIMATES - GREENHOUSE GAS EMISSIONS

This section analyzes the potential impacts on climate change from the project's emissions of various greenhouses (GHG).

3.1 - Significance Threshold

The Los Angeles County has adopted a Community Climate Action Plan (CCAP)[10] to mitigate and avoid GHG emissions associated with community activities in unincorporated Los Angeles County. The 2020 CCAP addresses emissions from building energy, land use and transportation, water consumption, and waste generation. The measures and actions outlined in the 2020 CCAP will tie together the County's existing climate change initiatives and provide a blueprint for a more sustainable future. Ultimately, the 2020 CCAP and associated GHG reduction measures are incorporated into the Air Quality Element of the Los Angeles County General Plan 2035. The 2020 CCAP identifies emissions related to community activities, establishes a greenhouse gas (GHG) reduction target consistent with AB 32 and provides a roadmap for successfully implementing GHG reduction measures selected by the County.

The 2020 CCAP does not specify numeric significance thresholds for GHGs. To provide guidance to lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, SCAQMD proposed a tiered approach for evaluating GHG emissions for development projects where the SCAQMD is not the lead agency. This concept is equivalent to the existing consistency determination requirements in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a). The SCAQMD has continued to consider adoption of significance thresholds for residential and general development projects. The most recent proposal issued in September 2010 (SCAQMD 2010[11]) uses a tiered approach to evaluate potential GHG impacts from various uses. This assessment will apply the Tier 3 approach that provides as follows:

- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:

  - Option 1: All land use types: 3,000 MT CO_2e per year

  - Option 2: Based on land use type: residential: 3,500 MT CO_2e per year; commercial: 1,400 MT CO_2e per year; or mixed use: 3,000 MT CO_2e per year

The SCAQMD's draft threshold uses the Executive Order S-3-05 year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO2 concentrations at 450 ppm, thus stabilizing global climate. For purposes of examining potential GHG

[10] County of Los Angeles 2015. Unincorporated Kos Angeles County 2020 Community Climate Action Plan. Website: http://planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf

[11] SCAQMD 2010. Minutes of the GHG CEQA Significance Threshold Stakeholder Working Group #15. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf)

impacts from this project, the Tier 3 screening level for residential land use type projects at 3,500 $MTCO_2e$ was selected as the significance threshold for this project.

3.2 - Estimation of GHG Emissions

3.2.1 Existing Emissions

Table 12 summarizes the GHG emissions from the existing school operation based on the emission estimates from the CalEEMod model.

Table 12: GHG Emissions from Existing School Operations

Activity	Annual GHG Emissions ($MTCO_2e$)
Area	0
Energy	22
Mobile	357
Waste	9
Water	4
Total	390
Source: see CalEEMod output	

3.2.2 Project Emissions

Construction

The project's construction GHG emissions are summarized in Table 13.

Table 13: Project Construction GHG Emissions

Activity	Annual GHG Emissions ($MTCO_2e$)
2020	149
2021	292
Total Emissions	441
Total Emissions Amortized Over 30 years	15
Source: see CalEEMod output	

Operations

The project's net operational GHG emissions are summarized in Table 14 along with the construction GHG emissions and the total project GHG emissions.

Table 14: Project Net Operational GHG Emissions

Activity	Annual GHG Emissions ($MTCO_2e$)
Project Operational Emissions	
Area	0
Energy	119
Mobile	327
Waste	17
Water	14
Total	478
Project Construction Emissions	15
Project Construction and Operation	493
Existing Emissions	390
Net Emissions	**163**
Significance Threshold	**3,500**
Project Exceeds Threshold?	**No**
Source: see CalEEMod output	

3.2.3 Conclusion

As noted from the results shown in Table 14 above, the project's net construction and operational emissions are well below the SCAQMD significance threshold of 3,500 $MTCO_2e$ per year for a residential project adopted for this project.

SECTION 4: PROJECT FUEL AND ENERGY CONSUMPTION

4.1 - Assumptions

- Construction equipment fuel consumption derived from ARB Offroad2017 emission model
- Fuel Consumption from vehicle travel derived from ARB EMFAC2017 emission model
- Electrical and natural gas usage derived from the CalEEMod model

Significance Thresholds

Neither Appendix F of the State CEQA Guidelines nor PRC Section 21100(b)(3)) provides a numerical threshold of significance that might be used to evaluate the potential significance of energy consumption of a proposed project. Rather, the emphasis is on reducing "the wasteful, inefficient, and unnecessary consumption of energy." Based on this focus of the guidelines, for purposes of this report, the proposed project would have a significant impact related to energy consumption if it would:

- Involve the wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, associated with project design, project location, the use of electricity and/or natural gas, and/or the use of fuel by vehicles anticipated to travel to and from the project.

4.1.1 Construction

Electricity and Natural Gas Usage

Temporary electric power for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers would be provided by Southern California Edison Company. The electricity used for such activities would be temporary and would be substantially less than that required for project operation and would have a negligible contribution to the project's overall energy consumption.

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the project's overall energy consumption.

Petroleum Fuel Usage

Off-road heavy-duty construction equipment associated with construction activities would rely on diesel fuel as would vendor and haul trucks involved in delivering building materials and removing the demolition debris from the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered passenger vehicles. The fuel usage for the off-road construction equipment is provided in Table 15. These estimates are based on the total fuel consumption and horsepower-hour data contained within the ARB OFFROAD2017 emission model for specific types of diesel construction equipment to be employed in the project construction. It should be noted that the total fuel

consumption during construction likely substantially overstates the amount of fuel usage. Although construction equipment is listed under a particular construction activity, there is a likelihood that the particular equipment will not operate over the entire duration of the construction activity. For example, during building construction, a crane is listed as one of the operational pieces of equipment. However, the crane will not operate over the entire duration of 230 days assumed during the building construction activity.

Table 16 summarizes the project's construction vehicle fuel usage. The fuel usage is based on the vehicle type (worker vehicle, vendor vehicle, and haul truck), vehicle miles traveled, and fuel usage factors contained in the ARB EMFAC2017 mobile source emission model. The total fuel construction during construction in summarized in Table 17.

4.1.2 Operational Energy Requirements

The project's net operational energy requirements are summarized in Table 18.

4.1.3 Conclusion

Construction of the project would result in fuel consumption from the use of construction tools and equipment, vendor and haul truck trips, and vehicle trips generated from construction workers traveling to and from the site. Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a typical condition of the project. In addition, there are no unusual project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the State. Therefore, construction-related fuel consumption by the project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region.

Operation of the project would involve the development of 29 residential dwelling units. According to CEQA Guidelines Appendix F, the goal of conserving energy implies the wise and efficient use of energy, including decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The project would comply with all of the energy efficiency requirements under Title 24 and all applicable county business and energy codes ordinances. As a result, the operation of the project would not result in inefficient, wasteful, or unnecessary energy use compared with other similar residential projects in the region.

Table 15: Construction Equipment Fuel Usage

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/industrial saws	1	8	81	0.73	20	9,461	0.023965	227
	Excavator	3	8	158	0.36	20	27,302	0.019664	540
	Rubber Tired Dozer	2	8	247	0.4	20	31,616	0.020440	647
Site Preparation	Rubber Tired Dozer	3	8	247	0.4	10	23,712	0.020440	485
	Crawler Tractor	4	8	212	0.43	10	29,171	0.022166	647
Grading	Excavators	1	8	158	0.38	20	9,606	0.019664	190
	Graders	1	8	187	0.41	20	12,267	0.021152	259
	Rubber Tired Dozers	1	8	247	0.4	20	15,808	0.020440	323
	Crawler Tractor	3	8	212	0.43	20	43,757	0.022166	970
Building Construction	Crane	1	7	231	0.29	230	10,7854	0.014896	1,607
	Forklifts	3	8	89	0.2	230	98,256	0.019105	1,877
	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173,349	0.023965	4,154
	Welders	1	8	46	0.45	239	39,578	0.023965	948
	Generator Set	1	8	84	0.74	230	114,374	0.023965	2,741
Paving	Pavers	2	8	130	0.42	20	17,472	0.021525	376
	Paving Equipment	2	8	132	0.36	20	15,206	0.018334	279
	Rollers	2	8	80	0.38	20	9,728	0.019412	189
Architectural Coating	Air Compressor	1	6	78	0.48	30	6,739	0.023965	162
								Total	16,621
Fuel Consumption rates derived from the ARB OFFROAD2017 - Orion Web Database									

Table 16: Estimated Project Vehicle Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	2,136	0
Vendor Trucks	575	0
Worker Vehicles	0	1,874
Construction Vehicles Total	2,710	1,874
Source: see Construction Fuel Usage Spreadsheet		

Table 17: Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	2,710	1,874
Off-road Construction Equipment	16,621	0
Construction Total	19,331	1,874
Source: see Construction Fuel Usage Spreadsheet		

Table 18: Project Annual Operational Energy Requirements

Operational Source (value per year)		
	Annual VMT	Gallons of Gasoline Fuel
Transportation – Project Transportation – Existing Transportation - Net	926,260 1,011,760 (85,500)	34,306[(1)] 37,473[(1)] (3,167)
	Kilowatt-Hours	
Electricity – Project Electricity – Existing Electricity - Net	238,040 50,831 187,209	
	Thousands British Thermal Units	
Natural Gas – Project Natural Gas – Existing Natural Gas - Net	796,763 98,986 697,777	
Note: [(1)] Based on an average gasoline consumption rate of 27 mile/gallon based on EMFAC2017 Source: see Fuel Usage Spreadsheet and CalEEMod output		

CalEEMod Model Spreadsheet Output

	Page
CalEEMod Model Output: Project – Summer	1
CalEEMod Model Output: Project – Winter	29
CalEEMod Model Output: Project – Annual	57
CalEEMod Model Output: Project – Operational LST – Summer	90
Estimation of Demolition Debris	105
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CalEEMod Model Output: Existing School – Winter	119
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CalEEMod Model Output: Existing School – Operational LST – Summer	150
Construction Fuel Usage	164

Carden School Residential Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	9.42	52,200.00	83

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Carden School Residential Project - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Trips and VMT - See Demo sheet for truck trips

Demolition - Removal of buildings = approx 8,195 cy @ 0.5 ton/cy = 4,097 tons
Removal of blacktop = 1106 cy @ 1.89 tons/cy = 2089 tons
Total = 6,187 tons
Truck capacity = 20 tons = 306 trucks or 612 truck trips

Grading -

Vehicle Trips - Weekday tipr rate from Project Traffic Memo. Sat/Sun trip rates scaled from weekday rate

Woodstoves - No wood fireplaces or wood stoves

Construction Off-road Equipment Mitigation -

Fleet Mix - Project fleet mix assumed to be comprised of LDA, LDT, and MDT vehicles

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	24.65	0.00
tblFireplaces	NumberNoFireplace	2.90	29.00
tblFireplaces	NumberWood	1.45	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblGrading	AcresOfGrading	40.00	10.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialExported	0.00	572.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	8.62	8.54
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	1.45	0.00
tblWoodstoves	NumberNoncatalytic	1.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.6367	63.8464	24.3597	0.0648	18.2675	2.7892	21.0567	9.9840	2.5661	12.5501	0.0000	6,542.9672	6,542.9672	1.7931	0.0000	6,574.0113
2021	16.5589	17.7528	17.0541	0.0288	0.1677	0.9601	1.0911	0.0445	0.9027	0.9379	0.0000	2,749.7051	2,749.7051	0.7189	0.0000	2,765.3108
Maximum	**16.5589**	**63.8464**	**24.3597**	**0.0648**	**18.2675**	**2.7892**	**21.0567**	**9.9840**	**2.5661**	**12.5501**	**0.0000**	**6,542.9672**	**6,542.9672**	**1.7931**	**0.0000**	**6,574.0113**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.6367	63.8464	24.3597	0.0648	6.1902	2.7892	8.9794	3.3454	2.5661	5.9115	0.0000	6,542.9672	6,542.9672	1.7931	0.0000	6,574.0113
2021	16.5589	17.7528	17.0541	0.0288	0.1677	0.9601	1.0911	0.0445	0.9027	0.9379	0.0000	2,749.7051	2,749.7051	0.7189	0.0000	2,765.3108
Maximum	**16.5589**	**63.8464**	**24.3597**	**0.0648**	**6.1902**	**2.7892**	**8.9794**	**3.3454**	**2.5661**	**5.9115**	**0.0000**	**6,542.9672**	**6,542.9672**	**1.7931**	**0.0000**	**6,574.0113**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.51**	**0.00**	**54.53**	**66.20**	**0.00**	**49.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.4042	0.5110	6.7758	0.0218	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,173.7032	2,173.7032	0.0552		2,175.0839
Total	**1.6234**	**0.7398**	**9.2591**	**0.0232**	**2.0331**	**0.0447**	**2.0778**	**0.5390**	**0.0435**	**0.5824**	**0.0000**	**2,434.8245**	**2,434.8245**	**0.0643**	**4.7100e-003**	**2,437.8356**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.4042	0.5110	6.7758	0.0218	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,173.7032	2,173.7032	0.0552		2,175.0839
Total	**1.6234**	**0.7398**	**9.2591**	**0.0232**	**2.0331**	**0.0447**	**2.0778**	**0.5390**	**0.0435**	**0.5824**	**0.0000**	**2,434.8245**	**2,434.8245**	**0.0643**	**4.7100e-003**	**2,437.8356**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2020	10/28/2020	5	20	
2	Site Preparation	Site Preparation	10/29/2020	11/11/2020	5	10	
3	Grading	Grading	11/12/2020	12/9/2020	5	20	
4	Building Construction	Building Construction	12/10/2020	10/27/2021	5	230	
5	Paving	Paving	10/28/2021	11/24/2021	5	20	
6	Architectural Coating	Architectural Coating	11/25/2021	12/22/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Carden School Residential Project - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	3	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	612.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	72.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6198	0.0000	6.6198	1.0023	0.0000	1.0023			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**6.6198**	**1.6587**	**8.2785**	**1.0023**	**1.5419**	**2.5441**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2673	8.7988	1.9497	0.0242	0.5350	0.0281	0.5631	0.1467	0.0269	0.1735		2,618.8454	2,618.8454	0.1783		2,623.3017
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.3363**	**8.8479**	**2.6065**	**0.0259**	**0.7027**	**0.0295**	**0.7322**	**0.1911**	**0.0282**	**0.2193**		**2,795.2623**	**2,795.2623**	**0.1838**		**2,799.8577**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1945	0.0000	2.1945	0.3323	0.0000	0.3323			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**2.1945**	**1.6587**	**3.8532**	**0.3323**	**1.5419**	**1.8741**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2673	8.7988	1.9497	0.0242	0.5350	0.0281	0.5631	0.1467	0.0269	0.1735		2,618.8454	2,618.8454	0.1783		2,623.3017
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.3363**	**8.8479**	**2.6065**	**0.0259**	**0.7027**	**0.0295**	**0.7322**	**0.1911**	**0.0282**	**0.2193**		**2,795.2623**	**2,795.2623**	**0.1838**		**2,799.8577**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645		5,523.5812	5,523.5812	1.7864		5,568.2421
Total	**5.5539**	**63.7874**	**22.3947**	**0.0570**	**18.0663**	**2.7875**	**20.8538**	**9.9307**	**2.5645**	**12.4952**		**5,523.5812**	**5,523.5812**	**1.7864**		**5,568.2421**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9890	0.0000	5.9890	3.2920	0.0000	3.2920			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421
Total	**5.5539**	**63.7874**	**22.3947**	**0.0570**	**5.9890**	**2.7875**	**8.7765**	**3.2920**	**2.5645**	**5.8565**	**0.0000**	**5,523.5812**	**5,523.5812**	**1.7864**		**5,568.2421**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5556	0.0000	6.5556	3.3680	0.0000	3.3680			0.0000			0.0000
Off-Road	3.5369	42.4134	16.7138	0.0439		1.7160	1.7160		1.5787	1.5787		4,251.3448	4,251.3448	1.3750		4,285.7191
Total	**3.5369**	**42.4134**	**16.7138**	**0.0439**	**6.5556**	**1.7160**	**8.2716**	**3.3680**	**1.5787**	**4.9467**		**4,251.3448**	**4,251.3448**	**1.3750**		**4,285.7191**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0315	1.0352	0.2294	2.8400e-003	0.0629	3.3000e-003	0.0663	0.0173	3.1600e-003	0.0204		308.0995	308.0995	0.0210		308.6237
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.1005**	**1.0843**	**0.8862**	**4.6100e-003**	**0.2306**	**4.7000e-003**	**0.2353**	**0.0617**	**4.4500e-003**	**0.0662**		**484.5164**	**484.5164**	**0.0265**		**485.1797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1732	0.0000	2.1732	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	3.5369	42.4134	16.7138	0.0439		1.7160	1.7160		1.5787	1.5787	0.0000	4,251.3448	4,251.3448	1.3750		4,285.7191
Total	**3.5369**	**42.4134**	**16.7138**	**0.0439**	**2.1732**	**1.7160**	**3.8892**	**1.1165**	**1.5787**	**2.6952**	**0.0000**	**4,251.3448**	**4,251.3448**	**1.3750**		**4,285.7191**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0315	1.0352	0.2294	2.8400e-003	0.0629	3.3000e-003	0.0663	0.0173	3.1600e-003	0.0204		308.0995	308.0995	0.0210		308.6237
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.1005**	**1.0843**	**0.8862**	**4.6100e-003**	**0.2306**	**4.7000e-003**	**0.2353**	**0.0617**	**4.4500e-003**	**0.0662**		**484.5164**	**484.5164**	**0.0265**		**485.1797**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.0567**	**0.3519**	**0.5215**	**1.9600e-003**	**0.1310**	**2.4300e-003**	**0.1334**	**0.0352**	**2.3000e-003**	**0.0375**		**200.7187**	**200.7187**	**8.7800e-003**		**200.9382**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.0567**	**0.3519**	**0.5215**	**1.9600e-003**	**0.1310**	**2.4300e-003**	**0.1334**	**0.0352**	**2.3000e-003**	**0.0375**		**200.7187**	**200.7187**	**8.7800e-003**		**200.9382**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0520**	**0.3207**	**0.4789**	**1.9100e-003**	**0.1310**	**1.5000e-003**	**0.1325**	**0.0352**	**1.4000e-003**	**0.0366**		**196.3412**	**196.3412**	**8.2200e-003**		**196.5465**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0520**	**0.3207**	**0.4789**	**1.9100e-003**	**0.1310**	**1.5000e-003**	**0.1325**	**0.0352**	**1.4000e-003**	**0.0366**		**196.3412**	**196.3412**	**8.2200e-003**		**196.5465**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.0643**	**0.0442**	**0.6042**	**1.7100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**170.8155**	**170.8155**	**5.0300e-003**		**170.9413**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.0643**	**0.0442**	**0.6042**	**1.7100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**170.8155**	**170.8155**	**5.0300e-003**		**170.9413**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.3314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**16.5503**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.5700e-003	5.8900e-003	0.0806	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.7754	22.7754	6.7000e-004		22.7922
Total	**8.5700e-003**	**5.8900e-003**	**0.0806**	**2.3000e-004**	**0.0224**	**1.8000e-004**	**0.0225**	**5.9300e-003**	**1.7000e-004**	**6.1000e-003**		**22.7754**	**22.7754**	**6.7000e-004**		**22.7922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.3314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**16.5503**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.5700e-003	5.8900e-003	0.0806	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.7754	22.7754	6.7000e-004		22.7922
Total	**8.5700e-003**	**5.8900e-003**	**0.0806**	**2.3000e-004**	**0.0224**	**1.8000e-004**	**0.0225**	**5.9300e-003**	**1.7000e-004**	**6.1000e-003**		**22.7754**	**22.7754**	**6.7000e-004**		**22.7922**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4042	0.5110	6.7758	0.0218	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,173.7032	2,173.7032	0.0552		2,175.0839
Unmitigated	0.4042	0.5110	6.7758	0.0218	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,173.7032	2,173.7032	0.0552		2,175.0839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	273.76	285.07	247.66	928,260	928,260
Total	273.76	285.07	247.66	928,260	928,260

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
NaturalGas Unmitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2182.91	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2.18291	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Unmitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School Residential Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	9.42	52,200.00	83

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Carden School Residential Project - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Trips and VMT - See Demo sheet for truck trips

Demolition - Removal of buildings = approx 8,195 cy @ 0.5 ton/cy = 4,097 tons
Removal of blacktop = 1106 cy @ 1.89 tons/cy = 2089 tons
Total = 6,187 tons
Truck capacity = 20 tons = 306 trucks or 612 truck trips

Grading -

Vehicle Trips - Weekday tipr rate from Project Traffic Memo. Sat/Sun trip rates scaled from weekday rate

Woodstoves - No wood fireplaces or wood stoves

Construction Off-road Equipment Mitigation -

Fleet Mix - Project fleet mix assumed to be comprised of LDA, LDT, and MDT vehicles

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	24.65	0.00
tblFireplaces	NumberNoFireplace	2.90	29.00
tblFireplaces	NumberWood	1.45	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblGrading	AcresOfGrading	40.00	10.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialExported	0.00	572.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	8.62	8.54
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	1.45	0.00
tblWoodstoves	NumberNoncatalytic	1.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.6459	63.8527	24.4268	0.0642	18.2675	2.7892	21.0567	9.9840	2.5661	12.5501	0.0000	6,487.5658	6,487.5658	1.7927	0.0000	6,518.7638
2021	16.5599	17.7554	17.0277	0.0288	0.1677	0.9601	1.0911	0.0445	0.9027	0.9379	0.0000	2,740.7927	2,740.7927	0.7186	0.0000	2,756.4014
Maximum	**16.5599**	**63.8527**	**24.4268**	**0.0642**	**18.2675**	**2.7892**	**21.0567**	**9.9840**	**2.5661**	**12.5501**	**0.0000**	**6,487.5658**	**6,487.5658**	**1.7927**	**0.0000**	**6,518.7638**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.6459	63.8527	24.4268	0.0642	6.1902	2.7892	8.9794	3.3454	2.5661	5.9115	0.0000	6,487.5658	6,487.5658	1.7927	0.0000	6,518.7638
2021	16.5599	17.7554	17.0277	0.0288	0.1677	0.9601	1.0911	0.0445	0.9027	0.9379	0.0000	2,740.7927	2,740.7927	0.7186	0.0000	2,756.4014
Maximum	**16.5599**	**63.8527**	**24.4268**	**0.0642**	**6.1902**	**2.7892**	**8.9794**	**3.3454**	**2.5661**	**5.9115**	**0.0000**	**6,487.5658**	**6,487.5658**	**1.7927**	**0.0000**	**6,518.7638**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.51**	**0.00**	**54.53**	**66.20**	**0.00**	**49.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.3838	0.5640	6.2755	0.0205	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,047.1857	2,047.1857	0.0522		2,048.4910
Total	**1.6031**	**0.7929**	**8.7589**	**0.0219**	**2.0331**	**0.0447**	**2.0778**	**0.5390**	**0.0435**	**0.5824**	**0.0000**	**2,308.3070**	**2,308.3070**	**0.0613**	**4.7100e-003**	**2,311.2427**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.3838	0.5640	6.2755	0.0205	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,047.1857	2,047.1857	0.0522		2,048.4910
Total	**1.6031**	**0.7929**	**8.7589**	**0.0219**	**2.0331**	**0.0447**	**2.0778**	**0.5390**	**0.0435**	**0.5824**	**0.0000**	**2,308.3070**	**2,308.3070**	**0.0613**	**4.7100e-003**	**2,311.2427**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2020	10/28/2020	5	20	
2	Site Preparation	Site Preparation	10/29/2020	11/11/2020	5	10	
3	Grading	Grading	11/12/2020	12/9/2020	5	20	
4	Building Construction	Building Construction	12/10/2020	10/27/2021	5	230	
5	Paving	Paving	10/28/2021	11/24/2021	5	20	
6	Architectural Coating	Architectural Coating	11/25/2021	12/22/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Carden School Residential Project - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	3	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	612.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	72.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6198	0.0000	6.6198	1.0023	0.0000	1.0023			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**6.6198**	**1.6587**	**8.2785**	**1.0023**	**1.5419**	**2.5441**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2738	8.9126	2.0721	0.0238	0.5350	0.0285	0.5635	0.1467	0.0273	0.1739		2,573.7479	2,573.7479	0.1847		2,578.3663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.3504**	**8.9670**	**2.6736**	**0.0254**	**0.7027**	**0.0299**	**0.7326**	**0.1911**	**0.0286**	**0.2197**		**2,739.8609**	**2,739.8609**	**0.1900**		**2,744.6102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1945	0.0000	2.1945	0.3323	0.0000	0.3323			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**2.1945**	**1.6587**	**3.8532**	**0.3323**	**1.5419**	**1.8741**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2738	8.9126	2.0721	0.0238	0.5350	0.0285	0.5635	0.1467	0.0273	0.1739		2,573.7479	2,573.7479	0.1847		2,578.3663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.3504**	**8.9670**	**2.6736**	**0.0254**	**0.7027**	**0.0299**	**0.7326**	**0.1911**	**0.0286**	**0.2197**		**2,739.8609**	**2,739.8609**	**0.1900**		**2,744.6102**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645		5,523.5812	5,523.5812	1.7864		5,568.2421
Total	**5.5539**	**63.7874**	**22.3947**	**0.0570**	**18.0663**	**2.7875**	**20.8538**	**9.9307**	**2.5645**	**12.4952**		**5,523.5812**	**5,523.5812**	**1.7864**		**5,568.2421**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9890	0.0000	5.9890	3.2920	0.0000	3.2920			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421
Total	**5.5539**	**63.7874**	**22.3947**	**0.0570**	**5.9890**	**2.7875**	**8.7765**	**3.2920**	**2.5645**	**5.8565**	**0.0000**	**5,523.5812**	**5,523.5812**	**1.7864**		**5,568.2421**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5556	0.0000	6.5556	3.3680	0.0000	3.3680			0.0000			0.0000
Off-Road	3.5369	42.4134	16.7138	0.0439		1.7160	1.7160		1.5787	1.5787		4,251.3448	4,251.3448	1.3750		4,285.7191
Total	**3.5369**	**42.4134**	**16.7138**	**0.0439**	**6.5556**	**1.7160**	**8.2716**	**3.3680**	**1.5787**	**4.9467**		**4,251.3448**	**4,251.3448**	**1.3750**		**4,285.7191**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.0486	0.2438	2.7900e-003	0.0629	3.3500e-003	0.0663	0.0173	3.2100e-003	0.0205		302.7939	302.7939	0.0217		303.3372
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.1089**	**1.1029**	**0.8453**	**4.4600e-003**	**0.2306**	**4.7500e-003**	**0.2354**	**0.0617**	**4.5000e-003**	**0.0662**		**468.9069**	**468.9069**	**0.0270**		**469.5812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1732	0.0000	2.1732	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	3.5369	42.4134	16.7138	0.0439		1.7160	1.7160		1.5787	1.5787	0.0000	4,251.3448	4,251.3448	1.3750		4,285.7191
Total	**3.5369**	**42.4134**	**16.7138**	**0.0439**	**2.1732**	**1.7160**	**3.8892**	**1.1165**	**1.5787**	**2.6952**	**0.0000**	**4,251.3448**	**4,251.3448**	**1.3750**		**4,285.7191**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.0486	0.2438	2.7900e-003	0.0629	3.3500e-003	0.0663	0.0173	3.2100e-003	0.0205		302.7939	302.7939	0.0217		303.3372
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.1089**	**1.1029**	**0.8453**	**4.4600e-003**	**0.2306**	**4.7500e-003**	**0.2354**	**0.0617**	**4.5000e-003**	**0.0662**		**468.9069**	**468.9069**	**0.0270**		**469.5812**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.0623**	**0.3553**	**0.4932**	**1.8700e-003**	**0.1310**	**2.4600e-003**	**0.1334**	**0.0352**	**2.3200e-003**	**0.0375**		**191.5768**	**191.5768**	**8.9000e-003**		**191.7992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.0623**	**0.3553**	**0.4932**	**1.8700e-003**	**0.1310**	**2.4600e-003**	**0.1334**	**0.0352**	**2.3200e-003**	**0.0375**		**191.5768**	**191.5768**	**8.9000e-003**		**191.7992**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0573**	**0.3233**	**0.4525**	**1.8300e-003**	**0.1310**	**1.5100e-003**	**0.1325**	**0.0352**	**1.4200e-003**	**0.0366**		**187.4288**	**187.4288**	**8.3400e-003**		**187.6371**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0573**	**0.3233**	**0.4525**	**1.8300e-003**	**0.1310**	**1.5100e-003**	**0.1325**	**0.0352**	**1.4200e-003**	**0.0366**		**187.4288**	**187.4288**	**8.3400e-003**		**187.6371**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**160.8377**	**160.8377**	**4.7300e-003**		**160.9560**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**160.8377**	**160.8377**	**4.7300e-003**		**160.9560**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.3314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**16.5503**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	9.5400e-003	6.5200e-003	0.0737	2.2000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		21.4450	21.4450	6.3000e-004		21.4608
Total	**9.5400e-003**	**6.5200e-003**	**0.0737**	**2.2000e-004**	**0.0224**	**1.8000e-004**	**0.0225**	**5.9300e-003**	**1.7000e-004**	**6.1000e-003**		**21.4450**	**21.4450**	**6.3000e-004**		**21.4608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.3314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**16.5503**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	9.5400e-003	6.5200e-003	0.0737	2.2000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		21.4450	21.4450	6.3000e-004		21.4608
Total	**9.5400e-003**	**6.5200e-003**	**0.0737**	**2.2000e-004**	**0.0224**	**1.8000e-004**	**0.0225**	**5.9300e-003**	**1.7000e-004**	**6.1000e-003**		**21.4450**	**21.4450**	**6.3000e-004**		**21.4608**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3838	0.5640	6.2755	0.0205	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,047.1857	2,047.1857	0.0522		2,048.4910
Unmitigated	0.3838	0.5640	6.2755	0.0205	2.0331	0.0152	2.0483	0.5390	0.0140	0.5529		2,047.1857	2,047.1857	0.0522		2,048.4910

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	273.76	285.07	247.66	928,260	928,260
Total	273.76	285.07	247.66	928,260	928,260

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
NaturalGas Unmitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2182.91	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2.18291	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Unmitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School Residential Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	9.42	52,200.00	83

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Off-road Equipment -

Off-road Equipment - Use of equivalent equipment

Trips and VMT - See Demo sheet for truck trips

Demolition - Removal of buildings = approx 8,195 cy @ 0.5 ton/cy = 4,097 tons
Removal of blacktop = 1106 cy @ 1.89 tons/cy = 2089 tons
Total = 6,187 tons
Truck capacity = 20 tons = 306 trucks or 612 truck trips

Grading -

Vehicle Trips - Weekday tipr rate from Project Traffic Memo. Sat/Sun trip rates scaled from weekday rate

Woodstoves - No wood fireplaces or wood stoves

Construction Off-road Equipment Mitigation -

Fleet Mix - Project fleet mix assumed to be comprised of LDA, LDT, and MDT vehicles

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	24.65	0.00
tblFireplaces	NumberNoFireplace	2.90	29.00
tblFireplaces	NumberWood	1.45	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblGrading	AcresOfGrading	40.00	10.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialExported	0.00	572.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	8.62	8.54
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	1.45	0.00
tblWoodstoves	NumberNoncatalytic	1.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1185	1.3345	0.6739	1.6500e-003	0.2333	0.0570	0.2903	0.0964	0.0528	0.1492	0.0000	147.9068	147.9068	0.0367	0.0000	148.8248
2021	0.3878	2.0455	1.9937	3.3600e-003	0.0156	0.1105	0.1261	4.1900e-003	0.1038	0.1080	0.0000	290.6037	290.6037	0.0673	0.0000	292.2861
Maximum	**0.3878**	**2.0455**	**1.9937**	**3.3600e-003**	**0.2333**	**0.1105**	**0.2903**	**0.0964**	**0.1038**	**0.1492**	**0.0000**	**290.6037**	**290.6037**	**0.0673**	**0.0000**	**292.2861**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1185	1.3345	0.6739	1.6500e-003	0.0848	0.0570	0.1418	0.0340	0.0528	0.0868	0.0000	147.9067	147.9067	0.0367	0.0000	148.8247
2021	0.3878	2.0455	1.9937	3.3600e-003	0.0156	0.1105	0.1261	4.1900e-003	0.1038	0.1080	0.0000	290.6034	290.6034	0.0673	0.0000	292.2857
Maximum	**0.3878**	**2.0455**	**1.9937**	**3.3600e-003**	**0.0848**	**0.1105**	**0.1418**	**0.0340**	**0.1038**	**0.1080**	**0.0000**	**290.6034**	**290.6034**	**0.0673**	**0.0000**	**292.2857**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.65**	**0.00**	**35.66**	**62.06**	**0.00**	**24.27**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2020	12-31-2020	1.4481	1.4481
2	1-1-2021	3-31-2021	0.6336	0.6336
3	4-1-2021	6-30-2021	0.6404	0.6404
4	7-1-2021	9-30-2021	0.6475	0.6475
		Highest	1.4481	1.4481

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2140	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004
Energy	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	118.3631	118.3631	3.9500e-003	1.4300e-003	118.8871
Mobile	0.0649	0.1002	1.1132	3.6200e-003	0.3457	2.6300e-003	0.3483	0.0918	2.4200e-003	0.0942	0.0000	327.0393	327.0393	8.3300e-003	0.0000	327.2476
Waste						0.0000	0.0000		0.0000	0.0000	6.9078	0.0000	6.9078	0.4082	0.0000	17.1137
Water						0.0000	0.0000		0.0000	0.0000	0.5994	12.0556	12.6551	0.0621	1.5600e-003	14.6706
Total	**0.2832**	**0.1403**	**1.4286**	**3.8700e-003**	**0.3457**	**7.2500e-003**	**0.3529**	**0.0918**	**7.0400e-003**	**0.0988**	**7.5072**	**457.9465**	**465.4538**	**0.4831**	**2.9900e-003**	**478.4194**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2140	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004
Energy	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	118.3631	118.3631	3.9500e-003	1.4300e-003	118.8871
Mobile	0.0649	0.1002	1.1132	3.6200e-003	0.3457	2.6300e-003	0.3483	0.0918	2.4200e-003	0.0942	0.0000	327.0393	327.0393	8.3300e-003	0.0000	327.2476
Waste						0.0000	0.0000		0.0000	0.0000	6.9078	0.0000	6.9078	0.4082	0.0000	17.1137
Water						0.0000	0.0000		0.0000	0.0000	0.5994	12.0556	12.6551	0.0621	1.5600e-003	14.6706
Total	**0.2832**	**0.1403**	**1.4286**	**3.8700e-003**	**0.3457**	**7.2500e-003**	**0.3529**	**0.0918**	**7.0400e-003**	**0.0988**	**7.5072**	**457.9465**	**465.4538**	**0.4831**	**2.9900e-003**	**478.4194**

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

3.0 Construction Detail

Construction Phase

Carden School Residential Project - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2020	10/28/2020	5	20	
2	Site Preparation	Site Preparation	10/29/2020	11/11/2020	5	10	
3	Grading	Grading	11/12/2020	12/9/2020	5	20	
4	Building Construction	Building Construction	12/10/2020	10/27/2021	5	230	
5	Paving	Paving	10/28/2021	11/24/2021	5	20	
6	Architectural Coating	Architectural Coating	11/25/2021	12/22/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Carden School Residential Project - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	3	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	612.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	72.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0662	0.0000	0.0662	0.0100	0.0000	0.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0662**	**0.0166**	**0.0828**	**0.0100**	**0.0154**	**0.0254**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-003	0.0909	0.0200	2.4000e-004	5.2600e-003	2.8000e-004	5.5400e-003	1.4400e-003	2.7000e-004	1.7100e-003	0.0000	23.5859	23.5859	1.6400e-003	0.0000	23.6270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.6000e-004	6.1700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5320	1.5320	5.0000e-005	0.0000	1.5332
Total	**3.3900e-003**	**0.0914**	**0.0262**	**2.6000e-004**	**6.9000e-003**	**2.9000e-004**	**7.2000e-003**	**1.8800e-003**	**2.8000e-004**	**2.1600e-003**	**0.0000**	**25.1180**	**25.1180**	**1.6900e-003**	**0.0000**	**25.1602**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0219	0.0000	0.0219	3.3200e-003	0.0000	3.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0219**	**0.0166**	**0.0385**	**3.3200e-003**	**0.0154**	**0.0187**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-003	0.0909	0.0200	2.4000e-004	5.2600e-003	2.8000e-004	5.5400e-003	1.4400e-003	2.7000e-004	1.7100e-003	0.0000	23.5859	23.5859	1.6400e-003	0.0000	23.6270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.6000e-004	6.1700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5320	1.5320	5.0000e-005	0.0000	1.5332
Total	**3.3900e-003**	**0.0914**	**0.0262**	**2.6000e-004**	**6.9000e-003**	**2.9000e-004**	**7.2000e-003**	**1.8800e-003**	**2.8000e-004**	**2.1600e-003**	**0.0000**	**25.1180**	**25.1180**	**1.6900e-003**	**0.0000**	**25.1602**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.3189	0.1120	2.8000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	25.0545	25.0545	8.1000e-003	0.0000	25.2571
Total	**0.0278**	**0.3189**	**0.1120**	**2.8000e-004**	**0.0903**	**0.0139**	**0.1043**	**0.0497**	**0.0128**	**0.0625**	**0.0000**	**25.0545**	**25.0545**	**8.1000e-003**	**0.0000**	**25.2571**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	3.4000e-004	3.7000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9192	0.9192	3.0000e-005	0.0000	0.9199
Total	**4.2000e-004**	**3.4000e-004**	**3.7000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9192**	**0.9192**	**3.0000e-005**	**0.0000**	**0.9199**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0299	0.0000	0.0299	0.0165	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.3189	0.1120	2.8000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	25.0545	25.0545	8.1000e-003	0.0000	25.2571
Total	**0.0278**	**0.3189**	**0.1120**	**2.8000e-004**	**0.0299**	**0.0139**	**0.0439**	**0.0165**	**0.0128**	**0.0293**	**0.0000**	**25.0545**	**25.0545**	**8.1000e-003**	**0.0000**	**25.2571**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	3.4000e-004	3.7000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9192	0.9192	3.0000e-005	0.0000	0.9199
Total	**4.2000e-004**	**3.4000e-004**	**3.7000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9192**	**0.9192**	**3.0000e-005**	**0.0000**	**0.9199**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0656	0.0000	0.0656	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0354	0.4241	0.1671	4.4000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	38.5676	38.5676	0.0125	0.0000	38.8794
Total	**0.0354**	**0.4241**	**0.1671**	**4.4000e-004**	**0.0656**	**0.0172**	**0.0827**	**0.0337**	**0.0158**	**0.0495**	**0.0000**	**38.5676**	**38.5676**	**0.0125**	**0.0000**	**38.8794**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0107	2.3600e-003	3.0000e-005	6.2000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7748	2.7748	1.9000e-004	0.0000	2.7797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.6000e-004	6.1700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5320	1.5320	5.0000e-005	0.0000	1.5332
Total	**1.0100e-003**	**0.0113**	**8.5300e-003**	**5.0000e-005**	**2.2600e-003**	**4.0000e-005**	**2.3100e-003**	**6.1000e-004**	**4.0000e-005**	**6.5000e-004**	**0.0000**	**4.3069**	**4.3069**	**2.4000e-004**	**0.0000**	**4.3129**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0217	0.0000	0.0217	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0354	0.4241	0.1671	4.4000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	38.5675	38.5675	0.0125	0.0000	38.8793
Total	**0.0354**	**0.4241**	**0.1671**	**4.4000e-004**	**0.0217**	**0.0172**	**0.0389**	**0.0112**	**0.0158**	**0.0270**	**0.0000**	**38.5675**	**38.5675**	**0.0125**	**0.0000**	**38.8793**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0107	2.3600e-003	3.0000e-005	6.2000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7748	2.7748	1.9000e-004	0.0000	2.7797
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.6000e-004	6.1700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5320	1.5320	5.0000e-005	0.0000	1.5332
Total	**1.0100e-003**	**0.0113**	**8.5300e-003**	**5.0000e-005**	**2.2600e-003**	**4.0000e-005**	**2.3100e-003**	**6.1000e-004**	**4.0000e-005**	**6.5000e-004**	**0.0000**	**4.3069**	**4.3069**	**2.4000e-004**	**0.0000**	**4.3129**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.1535	0.1348	2.2000e-004		8.9400e-003	8.9400e-003		8.4000e-003	8.4000e-003	0.0000	18.5288	18.5288	4.5200e-003	0.0000	18.6418
Total	**0.0170**	**0.1535**	**0.1348**	**2.2000e-004**		**8.9400e-003**	**8.9400e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**18.5288**	**18.5288**	**4.5200e-003**	**0.0000**	**18.6418**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.6000e-003	7.0000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5962	0.5962	4.0000e-005	0.0000	0.5972
Worker	3.7000e-004	3.0000e-004	3.2900e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8171	0.8171	3.0000e-005	0.0000	0.8177
Total	**4.6000e-004**	**2.9000e-003**	**3.9900e-003**	**2.0000e-005**	**1.0300e-003**	**2.0000e-005**	**1.0400e-003**	**2.7000e-004**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**1.4133**	**1.4133**	**7.0000e-005**	**0.0000**	**1.4149**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.1535	0.1348	2.2000e-004		8.9400e-003	8.9400e-003		8.4000e-003	8.4000e-003	0.0000	18.5288	18.5288	4.5200e-003	0.0000	18.6418
Total	**0.0170**	**0.1535**	**0.1348**	**2.2000e-004**		**8.9400e-003**	**8.9400e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**18.5288**	**18.5288**	**4.5200e-003**	**0.0000**	**18.6418**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.6000e-003	7.0000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5962	0.5962	4.0000e-005	0.0000	0.5972
Worker	3.7000e-004	3.0000e-004	3.2900e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8171	0.8171	3.0000e-005	0.0000	0.8177
Total	**4.6000e-004**	**2.9000e-003**	**3.9900e-003**	**2.0000e-005**	**1.0300e-003**	**2.0000e-005**	**1.0400e-003**	**2.7000e-004**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**1.4133**	**1.4133**	**7.0000e-005**	**0.0000**	**1.4149**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8652	1.7736	2.8800e-003		0.1026	0.1026		0.0964	0.0964	0.0000	247.8519	247.8519	0.0598	0.0000	249.3468
Total	**0.2034**	**1.8652**	**1.7736**	**2.8800e-003**		**0.1026**	**0.1026**		**0.0964**	**0.0964**	**0.0000**	**247.8519**	**247.8519**	**0.0598**	**0.0000**	**249.3468**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-003	0.0317	8.5900e-003	8.0000e-005	2.0200e-003	6.0000e-005	2.0900e-003	5.8000e-004	6.0000e-005	6.5000e-004	0.0000	7.9125	7.9125	4.9000e-004	0.0000	7.9247
Worker	4.6000e-003	3.5800e-003	0.0405	1.2000e-004	0.0117	1.0000e-004	0.0118	3.1100e-003	9.0000e-005	3.2000e-003	0.0000	10.5814	10.5814	3.1000e-004	0.0000	10.5892
Total	**5.6000e-003**	**0.0353**	**0.0491**	**2.0000e-004**	**0.0138**	**1.6000e-004**	**0.0139**	**3.6900e-003**	**1.5000e-004**	**3.8500e-003**	**0.0000**	**18.4940**	**18.4940**	**8.0000e-004**	**0.0000**	**18.5139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8652	1.7735	2.8800e-003		0.1026	0.1026		0.0964	0.0964	0.0000	247.8516	247.8516	0.0598	0.0000	249.3465
Total	**0.2034**	**1.8652**	**1.7735**	**2.8800e-003**		**0.1026**	**0.1026**		**0.0964**	**0.0964**	**0.0000**	**247.8516**	**247.8516**	**0.0598**	**0.0000**	**249.3465**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-003	0.0317	8.5900e-003	8.0000e-005	2.0200e-003	6.0000e-005	2.0900e-003	5.8000e-004	6.0000e-005	6.5000e-004	0.0000	7.9125	7.9125	4.9000e-004	0.0000	7.9247
Worker	4.6000e-003	3.5800e-003	0.0405	1.2000e-004	0.0117	1.0000e-004	0.0118	3.1100e-003	9.0000e-005	3.2000e-003	0.0000	10.5814	10.5814	3.1000e-004	0.0000	10.5892
Total	**5.6000e-003**	**0.0353**	**0.0491**	**2.0000e-004**	**0.0138**	**1.6000e-004**	**0.0139**	**3.6900e-003**	**1.5000e-004**	**3.8500e-003**	**0.0000**	**18.4940**	**18.4940**	**8.0000e-004**	**0.0000**	**18.5139**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**6.5000e-004**	**5.0000e-004**	**5.6700e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4834**	**1.4834**	**4.0000e-005**	**0.0000**	**1.4845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**6.5000e-004**	**5.0000e-004**	**5.6700e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4834**	**1.4834**	**4.0000e-005**	**0.0000**	**1.4845**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1633					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1655**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.6000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1978	0.1978	1.0000e-005	0.0000	0.1979
Total	**9.0000e-005**	**7.0000e-005**	**7.6000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1978**	**0.1978**	**1.0000e-005**	**0.0000**	**0.1979**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1633					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1655**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	7.6000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1978	0.1978	1.0000e-005	0.0000	0.1979
Total	**9.0000e-005**	**7.0000e-005**	**7.6000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1978**	**0.1978**	**1.0000e-005**	**0.0000**	**0.1979**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0649	0.1002	1.1132	3.6200e-003	0.3457	2.6300e-003	0.3483	0.0918	2.4200e-003	0.0942	0.0000	327.0393	327.0393	8.3300e-003	0.0000	327.2476
Unmitigated	0.0649	0.1002	1.1132	3.6200e-003	0.3457	2.6300e-003	0.3483	0.0918	2.4200e-003	0.0942	0.0000	327.0393	327.0393	8.3300e-003	0.0000	327.2476

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	273.76	285.07	247.66	928,260	928,260
Total	273.76	285.07	247.66	928,260	928,260

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.8448	75.8448	3.1300e-003	6.5000e-004	76.1161
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.8448	75.8448	3.1300e-003	6.5000e-004	76.1161
NaturalGas Mitigated	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5183	42.5183	8.1000e-004	7.8000e-004	42.7710
NaturalGas Unmitigated	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5183	42.5183	8.1000e-004	7.8000e-004	42.7710

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	796763	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5183	42.5183	8.1000e-004	7.8000e-004	42.7710
Total		**4.3000e-003**	**0.0367**	**0.0156**	**2.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.9700e-003**	**2.9700e-003**	**0.0000**	**42.5183**	**42.5183**	**8.1000e-004**	**7.8000e-004**	**42.7710**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	796763	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5183	42.5183	8.1000e-004	7.8000e-004	42.7710
Total		**4.3000e-003**	**0.0367**	**0.0156**	**2.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.9700e-003**	**2.9700e-003**	**0.0000**	**42.5183**	**42.5183**	**8.1000e-004**	**7.8000e-004**	**42.7710**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	238040	75.8448	3.1300e-003	6.5000e-004	76.1161
Total		**75.8448**	**3.1300e-003**	**6.5000e-004**	**76.1161**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	238040	75.8448	3.1300e-003	6.5000e-004	76.1161
Total		**75.8448**	**3.1300e-003**	**6.5000e-004**	**76.1161**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2140	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004
Unmitigated	0.2140	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0163					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1886					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0800e-003	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004
Total	**0.2140**	**3.4600e-003**	**0.2997**	**2.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**0.4885**	**0.4885**	**4.7000e-004**	**0.0000**	**0.5004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0163					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1886					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0800e-003	3.4600e-003	0.2997	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4885	0.4885	4.7000e-004	0.0000	0.5004
Total	**0.2140**	**3.4600e-003**	**0.2997**	**2.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**0.4885**	**0.4885**	**4.7000e-004**	**0.0000**	**0.5004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.6551	0.0621	1.5600e-003	14.6706
Unmitigated	12.6551	0.0621	1.5600e-003	14.6706

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.88947 / 1.19119	12.6551	0.0621	1.5600e-003	14.6706
Total		**12.6551**	**0.0621**	**1.5600e-003**	**14.6706**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.88947 / 1.19119	12.6551	0.0621	1.5600e-003	14.6706
Total		**12.6551**	**0.0621**	**1.5600e-003**	**14.6706**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9078	0.4082	0.0000	17.1137
Unmitigated	6.9078	0.4082	0.0000	17.1137

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	34.03	6.9078	0.4082	0.0000	17.1137
Total		**6.9078**	**0.4082**	**0.0000**	**17.1137**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	34.03	6.9078	0.4082	0.0000	17.1137
Total		**6.9078**	**0.4082**	**0.0000**	**17.1137**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School Residential Project - Operational LST

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	9.42	52,200.00	83

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Carden School Residential Project - Operational LST - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use -

Off-road Equipment -

Off-road Equipment - Operational LST Only

Trips and VMT - Operational LST ONly

Demolition - Removal of buildings = approx 8,195 cy @ 0.5 ton/cy = 4,097 tons
Removal of blacktop = 1106 cy @ 1.89 tons/cy = 2089 tons
Total = 6,187 tons
Truck capacity = 20 tons = 306 trucks or 612 truck trips

Grading -

Vehicle Trips - Weekday tipr rate from Project Traffic Memo. Sat/Sun trip rates scaled from weekday rate
Onsite trip length assumed to be 0.1 mile

Woodstoves - No wood fireplaces or wood stoves

Construction Off-road Equipment Mitigation -

Fleet Mix - Project fleet mix assumed to be comprised of LDA, LDT, and MDT vehicles

Construction Phase - Operational LST Only

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	1.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	24.65	0.00
tblFireplaces	NumberNoFireplace	2.90	29.00
tblFireplaces	NumberWood	1.45	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.60

tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	HO_TL	8.70	0.10
tblVehicleTrips	HS_TL	5.90	0.10
tblVehicleTrips	HW_TL	14.70	0.10
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	8.62	8.54
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	1.45	0.00
tblWoodstoves	NumberNoncatalytic	1.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.2739	0.0722	0.9213	6.7000e-004	0.0199	1.6500e-003	0.0215	5.2700e-003	1.5200e-003	6.7800e-003		65.2801	65.2801	5.0700e-003		65.4068
Total	**1.4931**	**0.3010**	**3.4047**	**2.0800e-003**	**0.0199**	**0.0311**	**0.0510**	**5.2700e-003**	**0.0310**	**0.0363**	**0.0000**	**326.4014**	**326.4014**	**0.0142**	**4.7100e-003**	**328.1586**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Energy	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Mobile	0.2739	0.0722	0.9213	6.7000e-004	0.0199	1.6500e-003	0.0215	5.2700e-003	1.5200e-003	6.7800e-003		65.2801	65.2801	5.0700e-003		65.4068
Total	**1.4931**	**0.3010**	**3.4047**	**2.0800e-003**	**0.0199**	**0.0311**	**0.0510**	**5.2700e-003**	**0.0310**	**0.0363**	**0.0000**	**326.4014**	**326.4014**	**0.0142**	**4.7100e-003**	**328.1586**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2020	10/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Crawler Tractors	0	0.00	212	0.43

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

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

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2739	0.0722	0.9213	6.7000e-004	0.0199	1.6500e-003	0.0215	5.2700e-003	1.5200e-003	6.7800e-003		65.2801	65.2801	5.0700e-003		65.4068
Unmitigated	0.2739	0.0722	0.9213	6.7000e-004	0.0199	1.6500e-003	0.0215	5.2700e-003	1.5200e-003	6.7800e-003		65.2801	65.2801	5.0700e-003		65.4068

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	273.76	285.07	247.66	9,072	9,072
Total	273.76	285.07	247.66	9,072	9,072

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	0.10	0.10	0.10	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
NaturalGas Unmitigated	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2182.91	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2.18291	0.0235	0.2012	0.0856	1.2800e-003		0.0163	0.0163		0.0163	0.0163		256.8133	256.8133	4.9200e-003	4.7100e-003	258.3394
Total		**0.0235**	**0.2012**	**0.0856**	**1.2800e-003**		**0.0163**	**0.0163**		**0.0163**	**0.0163**		**256.8133**	**256.8133**	**4.9200e-003**	**4.7100e-003**	**258.3394**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124
Unmitigated	1.1957	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	4.3080	4.3080	4.1700e-003	0.0000	4.4124

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0727	0.0277	2.3977	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1700e-003		4.4124
Total	**1.1957**	**0.0277**	**2.3977**	**1.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**4.3080**	**4.3080**	**4.1700e-003**	**0.0000**	**4.4124**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School Residential Project

Estimates of Demolition Debris

Building Demolition

Building	Length (ft)	Width(ft)	Height(ft)	Area (ft2)	Volume (ft3)	Demo Building Volume (cy)	
B1	50	30	20	1500	30000	367	
B2	50	30	20	1500	30000	367	
B3	50	30	20	1500	30000	367	
B4	43	23	20	989	19780	242	
B5	38	30	20	1140	22800	279	
B6	38	30	20	1140	22800	279	
B7	32	22	20	704	14080	172	
B8	85	50	20	4250	85000	1039	
B9	86	80	20	6880	137600	1682	
B10	88	90	20	7920	158400	1936	
B11	80	75	20	6000	120000	1467	
Total				33523	670460	8195	

Weight of the Building Demolition Debris (ton/cy): 0.5 Note 2

Total Weight of all Building Debris **4097** **tons**

Note 1: FEMA Debris Estimating Field Guide, FEMA 329. September 2010
Note 2: CalEEMod User Guide

Hardscape Demolition

Weight of Hardscape 140 lb/ft3

Area	Length(ft)	Width (ft)	Height (ft)	Area (ft2)	Volume (cf)	Weight (lbs)	Weight (tons)
H1	400	70	0.5	28000	14000	1960000	980
H2	150	130	0.5	19500	9750	1365000	683
H3	114	107	0.5	12198	6099	853860	427
Total				**59698**	**29849**	**4178860**	**2089**



Total Demolition Weight **6187** **tons**

Vehicle Trips

Haul Truck Capacity 20 tons
Number of Trucks 309 trucks
Number of Truck Trip **619** **truck trips**

Carden School - Existing School

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	100.00	Student	0.19	8,360.34	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operations Only

Off-road Equipment - OPerations Only

Vehicle Trips - Project Trip Generation Report: ITE 10th Edition 2017 Land Use Code 534

Fleet Mix - Vehicles assumed to be LDA, LDT, and MDT

Carden School - Existing School - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblVehicleTrips	WD_TR	1.29	4.11

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.5843	0.7421	9.8419	0.0317	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		3,160.1998	3,160.1998	0.0803		3,162.2060
Total	**0.7750**	**0.7688**	**9.8745**	**0.0319**	**2.9563**	**0.0241**	**2.9804**	**0.7837**	**0.0224**	**0.8061**		**3,192.1271**	**3,192.1271**	**0.0809**	**5.8000e-004**	**3,194.3243**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.5843	0.7421	9.8419	0.0317	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		3,160.1998	3,160.1998	0.0803		3,162.2060
Total	**0.7750**	**0.7688**	**9.8745**	**0.0319**	**2.9563**	**0.0241**	**2.9804**	**0.7837**	**0.0224**	**0.8061**		**3,192.1271**	**3,192.1271**	**0.0809**	**5.8000e-004**	**3,194.3243**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Demolition - 2020

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5843	0.7421	9.8419	0.0317	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		3,160.1998	3,160.1998	0.0803		3,162.2060
Unmitigated	0.5843	0.7421	9.8419	0.0317	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		3,160.1998	3,160.1998	0.0803		3,162.2060

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	411.00	0.00	0.00	1,011,760	1,011,760
Total	411.00	0.00	0.00	1,011,760	1,011,760

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
NaturalGas Unmitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	271.196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.271196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School - Existing School

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	100.00	Student	0.19	8,360.34	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operations Only

Off-road Equipment - OPerations Only

Vehicle Trips - Project Trip Generation Report: ITE 10th Edition 2017 Land Use Code 534

Fleet Mix - Vehicles assumed to be LDA, LDT, and MDT

Carden School - Existing School - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblVehicleTrips	WD_TR	1.29	4.11

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.5549	0.8192	9.1123	0.0299	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		2,976.2327	2,976.2327	0.0759		2,978.1290
Total	**0.7455**	**0.8459**	**9.1449**	**0.0300**	**2.9563**	**0.0241**	**2.9804**	**0.7837**	**0.0224**	**0.8061**		**3,008.1599**	**3,008.1599**	**0.0765**	**5.8000e-004**	**3,010.2473**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.5549	0.8192	9.1123	0.0299	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		2,976.2327	2,976.2327	0.0759		2,978.1290
Total	**0.7455**	**0.8459**	**9.1449**	**0.0300**	**2.9563**	**0.0241**	**2.9804**	**0.7837**	**0.0224**	**0.8061**		**3,008.1599**	**3,008.1599**	**0.0765**	**5.8000e-004**	**3,010.2473**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Demolition - 2020

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5549	0.8192	9.1123	0.0299	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		2,976.2327	2,976.2327	0.0759		2,978.1290
Unmitigated	0.5549	0.8192	9.1123	0.0299	2.9563	0.0220	2.9784	0.7837	0.0203	0.8040		2,976.2327	2,976.2327	0.0759		2,978.1290

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	411.00	0.00	0.00	1,011,760	1,011,760
Total	411.00	0.00	0.00	1,011,760	1,011,760

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
NaturalGas Unmitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	271.196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.271196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School - Existing School

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	100.00	Student	0.19	8,360.34	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operations Only

Off-road Equipment - OPerations Only

Vehicle Trips - Project Trip Generation Report: ITE 10th Edition 2017 Land Use Code 534

Fleet Mix - Vehicles assumed to be LDA, LDT, and MDT

Carden School - Existing School - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblVehicleTrips	WD_TR	1.29	4.11

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0342	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003
Energy	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.4781	21.4781	7.7000e-004	2.4000e-004	21.5674
Mobile	0.0703	0.1091	1.2117	3.9400e-003	0.3768	2.8600e-003	0.3796	0.1000	2.6400e-003	0.1027	0.0000	356.3931	356.3931	9.0700e-003	0.0000	356.6199
Waste						0.0000	0.0000		0.0000	0.0000	3.7046	0.0000	3.7046	0.2189	0.0000	9.1780
Water						0.0000	0.0000		0.0000	0.0000	0.0769	3.2124	3.2894	8.0300e-003	2.1000e-004	3.5539
Total	**0.1051**	**0.1139**	**1.2171**	**3.9700e-003**	**0.3768**	**3.2300e-003**	**0.3800**	**0.1000**	**3.0100e-003**	**0.1030**	**3.7815**	**381.0861**	**384.8676**	**0.2368**	**4.5000e-004**	**390.9219**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0342	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003
Energy	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.4781	21.4781	7.7000e-004	2.4000e-004	21.5674
Mobile	0.0703	0.1091	1.2117	3.9400e-003	0.3768	2.8600e-003	0.3796	0.1000	2.6400e-003	0.1027	0.0000	356.3931	356.3931	9.0700e-003	0.0000	356.6199
Waste						0.0000	0.0000		0.0000	0.0000	3.7046	0.0000	3.7046	0.2189	0.0000	9.1780
Water						0.0000	0.0000		0.0000	0.0000	0.0769	3.2124	3.2894	8.0300e-003	2.1000e-004	3.5539
Total	**0.1051**	**0.1139**	**1.2171**	**3.9700e-003**	**0.3768**	**3.2300e-003**	**0.3800**	**0.1000**	**3.0100e-003**	**0.1030**	**3.7815**	**381.0861**	**384.8676**	**0.2368**	**4.5000e-004**	**390.9219**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Demolition - 2020

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0703	0.1091	1.2117	3.9400e-003	0.3768	2.8600e-003	0.3796	0.1000	2.6400e-003	0.1027	0.0000	356.3931	356.3931	9.0700e-003	0.0000	356.6199
Unmitigated	0.0703	0.1091	1.2117	3.9400e-003	0.3768	2.8600e-003	0.3796	0.1000	2.6400e-003	0.1027	0.0000	356.3931	356.3931	9.0700e-003	0.0000	356.6199

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	411.00	0.00	0.00	1,011,760	1,011,760
Total	411.00	0.00	0.00	1,011,760	1,011,760

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	16.1958	16.1958	6.7000e-004	1.4000e-004	16.2537
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	16.1958	16.1958	6.7000e-004	1.4000e-004	16.2537
NaturalGas Mitigated	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2823	5.2823	1.0000e-004	1.0000e-004	5.3137
NaturalGas Unmitigated	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2823	5.2823	1.0000e-004	1.0000e-004	5.3137

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	98986.4	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2823	5.2823	1.0000e-004	1.0000e-004	5.3137
Total		**5.3000e-004**	**4.8500e-003**	**4.0800e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**5.2823**	**5.2823**	**1.0000e-004**	**1.0000e-004**	**5.3137**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	98986.4	5.3000e-004	4.8500e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2823	5.2823	1.0000e-004	1.0000e-004	5.3137
Total		**5.3000e-004**	**4.8500e-003**	**4.0800e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**5.2823**	**5.2823**	**1.0000e-004**	**1.0000e-004**	**5.3137**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	50830.9	16.1958	6.7000e-004	1.4000e-004	16.2537
Total		**16.1958**	**6.7000e-004**	**1.4000e-004**	**16.2537**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	50830.9	16.1958	6.7000e-004	1.4000e-004	16.2537
Total		**16.1958**	**6.7000e-004**	**1.4000e-004**	**16.2537**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0342	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003
Unmitigated	0.0342	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003
Total	**0.0342**	**1.0000e-005**	**1.2800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6500e-003
Total	**0.0342**	**1.0000e-005**	**1.2800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.2894	8.0300e-003	2.1000e-004	3.5539
Unmitigated	3.2894	8.0300e-003	2.1000e-004	3.5539

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.242424 / 0.623376	3.2894	8.0300e-003	2.1000e-004	3.5539
Total		**3.2894**	**8.0300e-003**	**2.1000e-004**	**3.5539**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.242424 / 0.623376	3.2894	8.0300e-003	2.1000e-004	3.5539
Total		**3.2894**	**8.0300e-003**	**2.1000e-004**	**3.5539**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7046	0.2189	0.0000	9.1780
Unmitigated	3.7046	0.2189	0.0000	9.1780

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	18.25	3.7046	0.2189	0.0000	9.1780
Total		**3.7046**	**0.2189**	**0.0000**	**9.1780**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	18.25	3.7046	0.2189	0.0000	9.1780
Total		**3.7046**	**0.2189**	**0.0000**	**9.1780**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School - Existing School - Operational LST

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	100.00	Student	0.19	8,360.34	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operations Only

Off-road Equipment - OPerations Only

Vehicle Trips - Project Trip Generation Report: ITE 10th Edition 2017 Land Use Code 534
Onsite vehicle trip length assumed to be 0.1 mile

Fleet Mix - Vehicles assumed to be LDA, LDT, and MDT

Demolition -

Trips and VMT -

Carden School - Existing School - Operational LST - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	PhaseEndDate	11/1/2019	10/1/2020
tblConstructionPhase	PhaseStartDate	10/19/2019	10/1/2020
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.1430e-003	0.00
tblFleetMix	MCY	5.0780e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	8.9100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.4790e-003	0.00
tblFleetMix	SBUS	6.8200e-004	0.00
tblFleetMix	UBUS	2.2700e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblVehicleTrips	CC_TL	8.40	0.10
tblVehicleTrips	CNW_TL	6.90	0.10
tblVehicleTrips	CW_TL	16.60	0.10
tblVehicleTrips	WD_TR	1.29	4.11

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Carden School - Existing School - Operational LST - Los Angeles-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.3947	0.1033	1.3188	9.3000e-004	0.0254	2.3600e-003	0.0277	6.7300e-003	2.1700e-003	8.8900e-003		90.6842	90.6842	7.2300e-003		90.8648
Total	**0.5853**	**0.1300**	**1.3513**	**1.0900e-003**	**0.0254**	**4.4200e-003**	**0.0298**	**6.7300e-003**	**4.2300e-003**	**0.0110**		**122.6115**	**122.6115**	**7.9000e-003**	**5.8000e-004**	**122.9831**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Mobile	0.3947	0.1033	1.3188	9.3000e-004	0.0254	2.3600e-003	0.0277	6.7300e-003	2.1700e-003	8.8900e-003		90.6842	90.6842	7.2300e-003		90.8648
Total	**0.5853**	**0.1300**	**1.3513**	**1.0900e-003**	**0.0254**	**4.4200e-003**	**0.0298**	**6.7300e-003**	**4.2300e-003**	**0.0110**		**122.6115**	**122.6115**	**7.9000e-003**	**5.8000e-004**	**122.9831**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2020	10/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Demolition - 2020

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3947	0.1033	1.3188	9.3000e-004	0.0254	2.3600e-003	0.0277	6.7300e-003	2.1700e-003	8.8900e-003		90.6842	90.6842	7.2300e-003		90.8648
Unmitigated	0.3947	0.1033	1.3188	9.3000e-004	0.0254	2.3600e-003	0.0277	6.7300e-003	2.1700e-003	8.8900e-003		90.6842	90.6842	7.2300e-003		90.8648

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	411.00	0.00	0.00	8,682	8,682
Total	411.00	0.00	0.00	8,682	8,682

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	0.10	0.10	0.10	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.598000	0.049000	0.221000	0.132000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
NaturalGas Unmitigated	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	271.196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.271196	2.9200e-003	0.0266	0.0223	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003		31.9054	31.9054	6.1000e-004	5.8000e-004	32.0950
Total		**2.9200e-003**	**0.0266**	**0.0223**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**		**31.9054**	**31.9054**	**6.1000e-004**	**5.8000e-004**	**32.0950**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	0.1877	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**0.1877**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carden School Residential Project

Construction Equipment Fuel Usage

Activity	Equipment	Project Number	Project Hours per day	Default Horse-power	Default Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/industrial saws	1	8	81	0.73	20	9461	0.023965	227
	Excavator	3	8	158	0.36	20	27302	0.019763	540
	Rubber Tired Dozer	2	8	247	0.4	20	31616	0.020461	647
Site Preparation	Rubber Tired Dozer	3	8	247	0.4	10	23712	0.020461	485
	Crawler Tractor	4	8	212	0.43	10	29171	0.022173	647
Grading	Excavators	1	8	158	0.38	20	9606	0.019763	190
	Graders	1	8	187	0.41	20	12267	0.021143	259
	Rubber Tired Dozers	1	8	247	0.4	20	15808	0.020461	323
	Crawler Tractor	3	8	212	0.43	20	43757	0.022173	970
Building Construction	Crane	1	7	231	0.29	230	107854	0.014896	1607
	Forklifts	3	8	89	0.2	230	98256	0.019105	1877
	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173349	0.023965	4154
	Welders	1	8	46	0.45	239	39578	0.023965	948
	Generator Set	1	8	84	0.74	230	114374	0.023965	2741
Paving	Pavers	2	8	130	0.42	20	17472	0.021525	376
	Paving Equipment	2	8	132	0.36	20	15206	0.018334	279
	Rollers	2	8	80	0.38	20	9728	0.019412	189
Architectural Coating	Air Compressor	1	6	78	0.48	30	6739	0.023965	162

Fuel Consumption rates derived from the ARB OFFROAD2017 - Orion Web Database

Total 16621

Carden School Residential Project

Fuel Consumption from Construction Vehicles (Derived from the ARB EMFAC2017 Mobile Source Emission Model

Emission Factors

Region (County)	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT (miles/day)	Fuel Consumption (1000 gallons/day)	Fuel Rate (miles/gallon)
LOS ANGELES COUNTY	2021	MHDT-T6	Aggregated	Aggregated	DSL	4146737	408.0	10.2
LOS ANGELES COUNTY	2021	HHDT-T7	Aggregated	Aggregated	DSL	6891921	1076.0	6.4
							Average (50%/50%)	**8.3**
LOS ANGELES COUNTY	2021	LDA	Aggregated	Aggregated	GAS	154951028	5253	29.5
LOS ANGELES COUNTY	2021	LDT1	Aggregated	Aggregated	GAS	17065391	670	25.5
LOS ANGELES COUNTY	2021	LDT2	Aggregated	Aggregated	GAS	52553142	2239	23.5
						Average	**(50%/25%/25%)**	**27**

Vehicle Assumptions (CalEEMod)
Haul trucks represented by HHDT-T7 (heavy -heavy duty haul truck)
MHDT-T6 (medium heavy duty haul truck)
Vendor trucks assu ed to be 50% HHDT-T7 and MHDT-T6)
LDA (light duty automobile for worker vehicles)
LDT1 (light duty truck 1 for wortker vehicles)
LDT2 (light duty truck 2 for worker vehicles)
Worker vehicles represented as 50% LDT, 25% LHT1, and 25% LDT2

Construction Vehicle Use **(Derived from the CalEEMod model output)**

Fuel Consumption for Haul Trucks

Construction Activity	No Haul Truck Trips	Trip Length	VMT (miles)	DSL Fuel (gallons)
Demolition	612	20	12240	1477
Site Preparation	0	20	0	0
Grading	72	20	1440	174
Building Construction	0	20	0	0
Paving -	0	20	0	0
Architectural Coating	0	20	0	0
Total	**684**		**13680**	**2136**

Construction Activity	No Vendor Truck Trips/day	Duration (days)	Trip Length (miles)	VMT (miles)	Fuel	Fuel Rate (miles/gallon)	DSL Fuel (gallons)
Demolition	0	20	6.9	0	DSL	8.3	0
Site Preparation	0	10	6.9	0	DSL	8.3	0
Grading	0	20	6.9	0	DSL	8.3	0
Building Construction	3	230	6.9	4761	DSL	8.3	575
Paving	0	20	6.9	0	DSL	8.3	0
Architectural Coating	0	30	6.9	0	DSL	8.3	0
						Total	**575**

Activity	No Worker Vehicles Trips/day	Duration (days)	Trip Length (miles)	VMT (miles)	Fuel	Fuel Rate (miles/gallon)	Gas Fuel (gallons)
Demolition	15	20	14.7	4410	GAS	27	163
Site Preparation	18	10	14.7	2646	GAS	27	98
Grading	15	20	14.7	4410	GAS	27	163
Building Construction	10	230	14.7	33810	GAS	27	1253
Paving	15	20	14.7	4410	GAS	27	163
Architectural Coating	2	30	14.7	882	GAS	27	33
						Total	**1874**

Summary	Gallons
Total -DSL	2710
Ttal - GAS	1874

APPENDIX B: ARBORIST LETTER

LAJOHNNY

April 5, 2019

Mr. Peter Chou

Land Divisions

Los Angeles County Department of Regional Planning

320 West Temple Street, 13th Floor, Los Angeles, California 90012

RE: Tree Survey for Protected Trees for TTM 82457

Dear Peter,

The purpose of this letter is to certify that we conducted a tree survey on March 9th, 2019 at the property located at 11537 Grovedale Drive in Whittier for the proposed TTM #82457 on behalf of Century Communities.

The results of this survey were that no protected oak trees were identified either on the site or within 50 feet of the property boundaries.

Should you have any questions or require any further information please contact me at 805-754-9393.

Sincerely,



John Burke

California Landscape Architect #5251

Registered Consulting Arborist #591 ASCA

Certified Consulting Arborist #WE-8327A ISA

APPENDIX C: CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT

November 2019

MATERIAL CULTURE
CONSULTING

Submitted to:

Lauren Lockwood
Environmental Planner
E|P|D Solutions, Inc.
Irvine, California

Prepared on Behalf of:

Century Communities
4695 MacArthur Court
Suite 350
Newport, CA 92660

CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT

Grovedale And Richvale Residential Project

East City of Whittier, Los Angeles County, California

Material Culture Consulting™
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CULTURAL AND PALEONTOLOGICAL PHASE I ASSESSMENT: GROVEDALE AND RICHVALE RESIDENTIAL PROJECT, IN EAST WHITTIER, LOS ANGELES COUNTY, CALIFORNIA

Prepared on Behalf of:
Century Communities
4695 MacArthur Court, Suite 350
Newport Beach, CA 92660

Prepared for:
EPD Solutions, Inc.
2030 Main St., Ste. 1200
Irvine, CA 92614

Principal Investigators/Authors:
Tria Marie Belcourt, M.A., Registered Professional Archaeologist
Sonia Sifuentes, M.Sc., Registered Professional Archaeologist

November 2019

Type of Study: Cultural and Paleontological resources assessment
Cultural/ Paleontological Resources within Area of Potential Impact: None
Paleontological Formations: Older Quaternary Alluvium, Younger Quaternary Alluvium
USGS 7.5-minute Quadrangle: La Habra, Section 12 of Township 3 S, Range 11 W
Survey Area: Approx. 5.75 acres
Date of Fieldwork: October 31, 2019
Key Words: Archaeology, Paleontology, CEQA, Phase I Survey, Negative Cultural Result, younger Quaternary Alluvium, older Quaternary Alluvium, Los Angeles County, City of Whittier

MANAGEMENT SUMMARY

Century Communities proposes the construction of a residential tract in the census designated place of East Whittier, within Los Angeles County, California. Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I cultural and paleontological resource investigation of the Project Area. These assessments were conducted in accordance with the California Environmental Quality Act (CEQA) and included cultural resources records searches, a fossil locality search at the National History Museum of Los Angeles County (LACM), an examination of geological maps and paleontological literature, a search of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC), outreach efforts with five Native American tribal representatives, background research, and a pedestrian survey.

Erika McMullin, MCC Archaeologist, conducted a search of the California Historical Resource Information System (CHRIS) on November 7, 2019 at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton. The cultural resources records search identified thirteen cultural resources investigations and one paleontological resources investigation within a 1-mile radius of the Project Area. None of these studies took place within the Project Area. No cultural resources have been recorded within a 1-mile radius of the Project Area. A review of historic-era aerial photographs and topographic maps indicate that structures associated with the current Carden Academy of Whittier (Carden Academy) were established within the Project Area in the late 1960s. An architectural historian will be assessing the buildings and potential for Project impacts in a separate report.

The SLF search did not identify any previously known tribal cultural resources or sacred lands within the Project Area. The NAHC provided MCC with contact information for five tribes/individuals to reach out to for additional information on October 23, 2019. MCC sent letters on October 25, 2019 to all five Native American contacts, requesting any information related to cultural resources or heritage sites within or adjacent to the Project Area. Additional attempts at contact by letter, email or phone call were made on November 6 and November 14, 2019. As a result of this outreach effort, MCC received one response from Gabrieleno Band of Mission Indians-Kizh Nation on November 1, 2019. MCC did not conduct formal consultation with any of the Native American representatives.

The Project Area is comprised of younger Quaternary Alluvium in the north and older Quaternary Alluvium in the south. Both the younger and older Quaternary Alluvium deposits are derived from alluvial fan deposits from the Puente Hills, northeast of the Project Area from La Mirada Creek, which flows south. Younger Quaternary Alluvium deposits do not typically produce significant vertebrate fossils, although older Quaternary Alluvium deposits may contain significant fossil vertebrates. No previously recorded fossil localities are located within the Project Area; however, there are nearby localities from similar sedimentary deposits found within the proposed Project Area, either at the surface or at depth.

The pedestrian survey of the Project Area was conducted on October 31, 2019 by MCC Archaeologist and Cross-Trained Paleontologist Natalie Adame. During fieldwork, access was restricted and the majority of the Project Area was not accessible, yet the grounds were observed from accessible areas and found to be completely developed into the school grounds. The portions of the Project Area that were surveyed had ground visibility that ranged from poor (<20%) to fair (50%) due to wood chips and grass covering the ground. No cultural or paleontological resources were identified during the survey.

Based on the results of the cultural resources records search and survey, the proposed Project Area is considered to have low or unknown sensitivity for presence of prehistoric or historical archaeological deposits. Due to the extensive prior disturbance and development of the Project Area, it is unlikely that crews will encounter significant

cultural resources during Project development. However, due to the fact that most of the Project Area surface was obscured by landscaping and construction of the school, it is recommended that the Project Applicant retain the services of an on-call archaeologist to respond to inadvertent discoveries of cultural resources that may be unearthed during construction. In addition, we recommend setting a plan in place, prior to construction, to expediently address inadvertent discoveries and human remains, should these be encountered during earth moving activities. Finally, all recommendations for the historical buildings currently present on the Carden Academy property can be found in the separate historic-era built environment report. Due to the exposure of older Quaternary Alluvium within the southern portion of the Project Area and close proximity of recorded fossil localities to the Project Area, MCC recommends that a paleontological resource mitigation program be put in place, including full time paleontological monitoring to salvage, and curate any recovered fossils discovered during ground disturbing activities.

A copy of this report will be permanently filed with the SCCIC at California State University, Fullerton. All notes, photographs, correspondence and other materials related to this Project are located at MCC, Inc located in Pomona, California.

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INTRODUCTION

Century Communities proposes the construction of a residential tract (Project) in the Census Designated Place (CDP) of East Whittier, within Los Angeles County, California. Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I cultural and paleontological investigation of the Project in accordance with the California Environmental Quality Act (CEQA). This assessment was conducted pursuant to all applicable State of California regulations regarding cultural and paleontological resources. According to CEQA, if development of a Project has the potential to result in significant impacts to cultural or paleontological resources, a plan must be developed to mitigate those impacts to a level which is less than a significant. This assessment documents the potential for encountering cultural and paleontological resources during development of this Project and provides recommendations on how to mitigate impacts to those resources. The lead agency for this Project is the County of Los Angeles.

PROJECT LOCATION AND DESCRIPTION

The proposed Project Area is located at 11537 Grovedale Drive in the CDP of East Whittier, in Los Angeles County, California (Figure 1). The Project Area lies 4.3 miles southeast of the downtown area of the City of Whittier. The proposed Project Area is bounded by Richvale Drive to the north, Grovedale Drive to the east, and existing residential neighborhoods to the south and west (Figures 2 and 3). Specifically, the proposed Project is located in Section 12, Township 3 South, Range 11 West on the U.S. Geological Survey (USGS) La Habra 7.5-minute topographic quadrangle (San Bernardino Base Meridian) (Figure 2). The 5.77-acre Project Area is comprised of a single parcel, APN 8039-014-027. The Project Area is currently being utilized as part of Carden Academy of Whittier campus, including multiple buildings and open spaces. The proposed Project would subdivide the 5.77 acre site into 28 residential lots, three flood control facilities, a road, and open spaces.

PROJECT PERSONNEL

Tria Belcourt, M.A., RPA, President of MCC, served as the Project Manager and Principal Archaeologist for the study. Ms. Belcourt oversaw the Project and performed editorial review of this report. Belcourt is a Registered Professional Archaeologist (RPA) with a M.A. in Anthropology from the University of Florida, a B.A. in Anthropology from the University of California at Los Angeles with over 15 years of experience in California archaeology and 8 years of experience overseeing paleontological assessments in California (See Appendix A). Jennifer Kelly, M.S., served as the Principal Investigator for Paleontology for the study. Ms. Kelly conducted the paleontological resource literature and map reviews, oversaw the field study, and prepared the paleontological sections of the report. Ms. Kelly has a M.Sc. in Geology from California State University, Long Beach, and has over ten years of experience in environmental and paleontological compliance in California (See Appendix A). Erika McMullin, B.A., conducted the records search. Julia Carvajal, B.S., created the maps for the report.

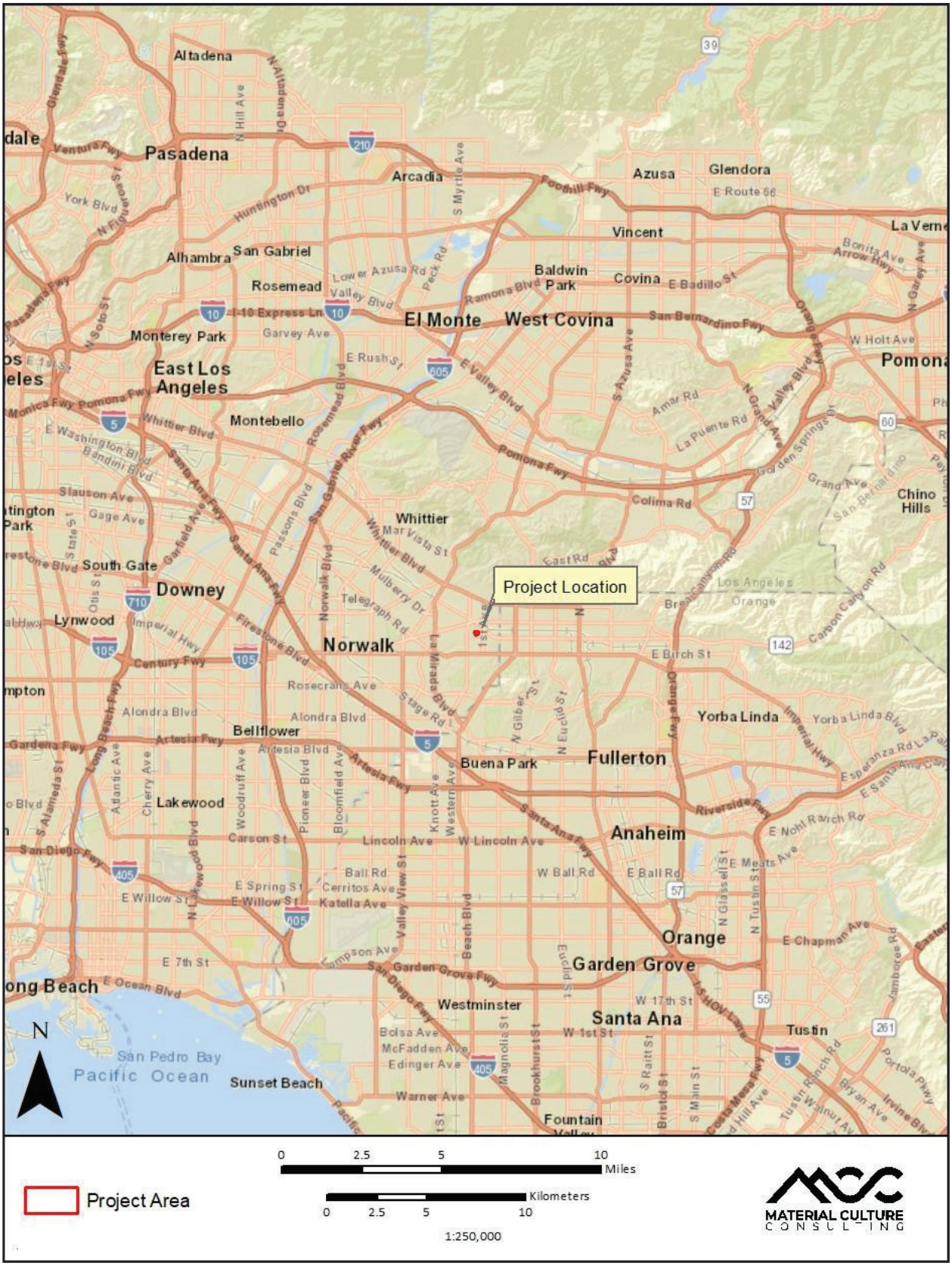


Figure 1. Grovedale and Richvale Residential Tract Project Location (1:250,000)

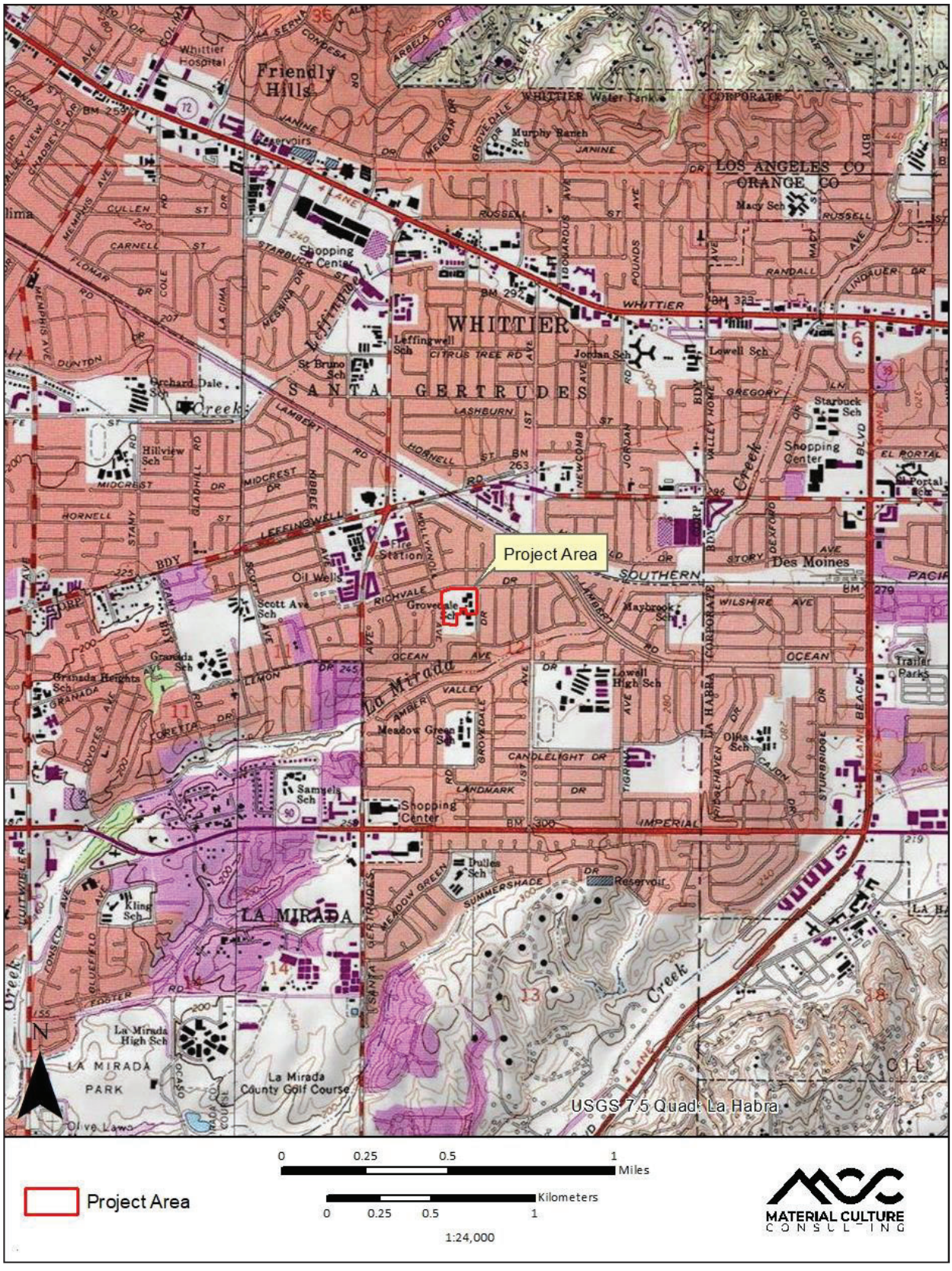


Figure 2. Grovedale and Richvale Residential Project Area (1:24,000, as depicted on La Habra USGS 7.5 Minute Quadrangle)

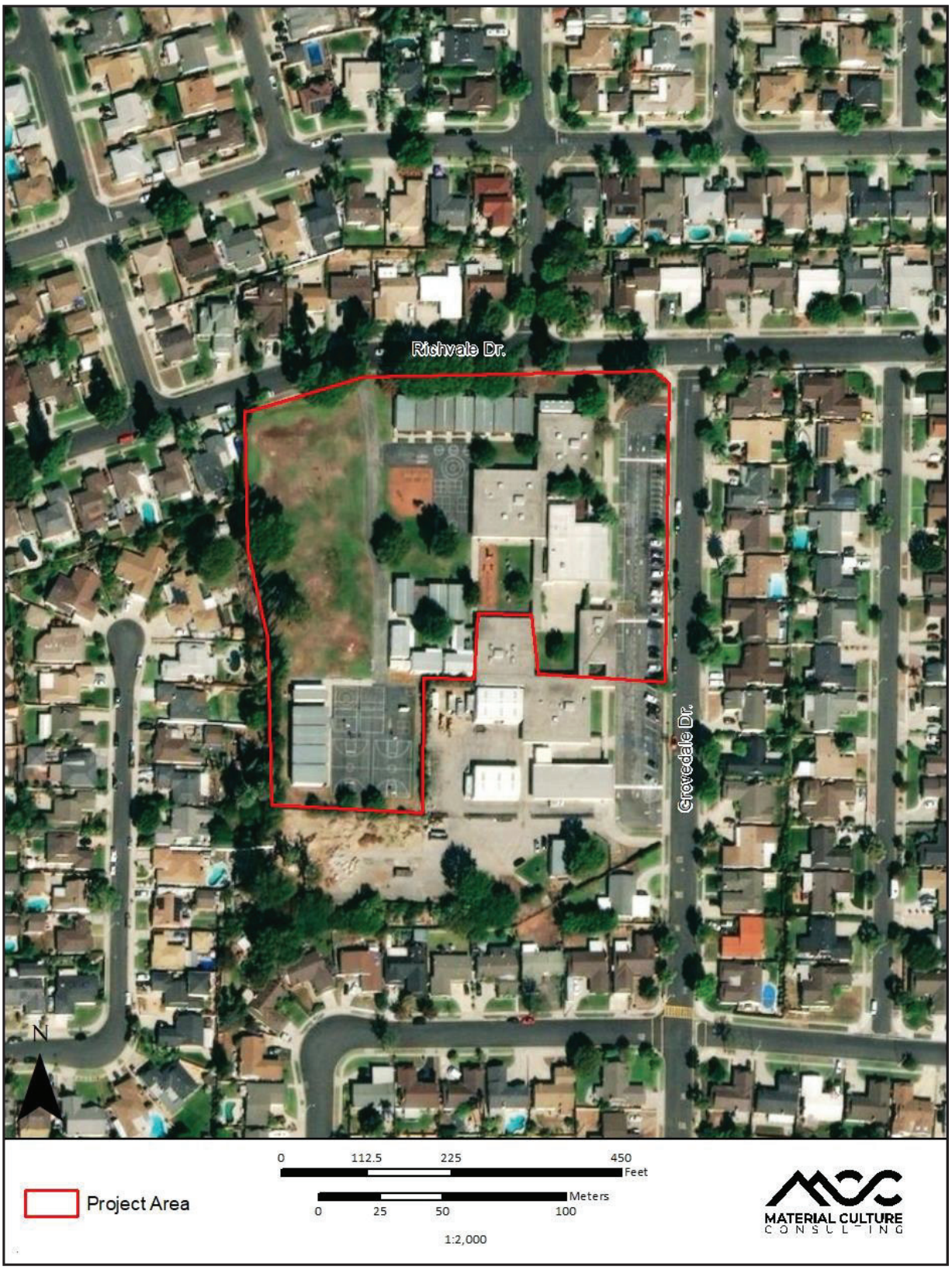


Figure 3. Grovedale and Richvale Residential Project Area (1:2,000, as depicted on aerial photograph)

REGULATORY ENVIRONMENT

The Project is subject to state laws and regulations regarding cultural resources. These regulations require the identification of cultural resources during the planning stage of new Projects; include application review for Projects that would potentially involve land disturbance; provide a Project-level standard conditions of approval that address unanticipated archaeological discoveries; and provide requirements to develop specific mitigation measures if resources are encountered during any development activity. Specific governing legislation and regulations include the following:

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA declares that it is state policy to "take all action necessary to provide the people of this state with…historic environmental qualities." It further states that public or private Projects financed or approved by the state are subject to environmental review by the state. All such Projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental impacts of a proposed Project. In the event that a Project is determined to have a potential significant environmental impact, CEQA requires that alternative plans and mitigation measures be considered. CEQA includes historic and archaeological resources as integral features of the environment.

CEQA requires a designated lead agency to determine whether a Project may have a significant impact on historical resources. A historical resource is defined as a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Section 21084.1); a resource included in a local register of historical resources (Section 15064.5(a)(2)); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as one of the basic guidelines for the current cultural resources study. PRC Section 5024.1 directs evaluation of historical resources to determine their eligibility for listing on the CRHR.

The purpose of the register is to maintain listings of the state's historical resources. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to Public Resources Code (PRC) Section 5024.1(c)(1-4), a resource is considered historically significant if it meets at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Associated with the lives of persons important to local, California or national history;
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to having significance, resources must retain integrity. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if,

under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Note that California Historical Landmarks with numbers 770 or higher are automatically included in the CRHR.

Under CEQA, if an archeological site is not a significant "historical resource" but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined in PRC Section 21083.2(g) as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing on the NRHP or CRHR nor qualify as a "unique archaeological resource" under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" [PRC Section 21083.2(h)].

Impacts to historical resources that alter the characteristics that qualify the historical resource for listing on the CRHR are considered to be a significant impact. Impacts to a historical resource are considered significant if the Project activities physically destroy or damage all or part of a resource; change the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance; or introduce visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource. If it can be demonstrated that a Project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)).

CALIFORNIA HISTORICAL LANDMARKS AND POINTS OF HISTORICAL INTEREST

Historical landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. In order to be considered a California Historical Landmark, the landmark must meet at least one of the following criteria:

1) Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2) Associated with the lives of persons important to local, California, or national history;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values;
4) Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If a site is primarily of local or countywide interest, it may meet the criteria for the California Point of Historical Interest Program. Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or

technical, religious, experimental, or other value. To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

1. The first, last, only, or most significant of its type in the local geographic region (city or county);
2. Associated with an individual or group having a profound influence on the history of the local area;
3. A prototype of, or an outstanding example of, a period, style, architectural movement or construction; or
4. One of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point of Interest. If a Point of Interest is subsequently granted status as a Landmark, the Point of Interest designation will be retired.

PALEONTOLOGY

The State of California Public Resources Code (Chapter 1.7), Sections 5097.5 and 30244, includes additional state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, define the removal of paleontological "sites" or "features" from state lands as a misdemeanor, and prohibit the removal of any paleontological "site" or "feature" from State land without permission of the jurisdictional agency. These protections apply only to State of California land, and thus apply only to portions of the Project, if any, which occur on State land.

As defined by Society for Vertebrate Paleontology (SVP), paleontological resources means any fossilized remains, traces, or imprints of prehistoric plants and/or animals which are preserved in or on the earth's crust that can provide information about the history of past life on the planet (2009). Generally, any resource greater than 5,000 years old is considered to be a fossil and are considered a nonrenewable resource that are subject to impacts from land development (SVP, 2010). Paleontological resources are important scientific and educational resources because they are used to:

1) Document the evolutionary history of now extinct organisms to study any associated evolution patterns and/or speciation;
2) Reconstruct the environments, climate change, and/or paleoecological relationships these organism lived in; and
3) Determine the relative geologic age of the strata in which the resources occur and any geological events that resulted in the deposition of the sediments that formed the strata.

Fossil resources vary widely in their relative abundance and distribution and not all are regarded as significant. Vertebrate fossils, whether preserved remains or trackways, are classed as significant by most state and federal agencies and professional groups (and are specifically protected under the California Public Resources Code). In some cases, fossils of plants or invertebrate animals are also considered significant and can provide important information about ancient local environments. Assessment of significance is also subject to the California Environmental Quality Act (CEQA) criterion that the resource constitutes a "unique paleontological resource or site." A significant paleontological resource is considered to be of scientific interest if it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has an identified educational or recreational value. Paleontological resources that may be considered not to have scientific significance include those that lack provenience or context, lack physical integrity due to decay or natural erosion, or that are overly

redundant or are otherwise not useful for research. Vertebrate fossil remains and traces include bone, scales, scutes, skin impressions, burrows, tracks, tail drag marks, vertebrate coprolites (feces), gastroliths (stomach stones), or other physical evidence of past vertebrate life or activities (BLM, 2007). The full significance of fossil specimens or fossil assemblages cannot be accurately predicted before they are collected, and in many cases, before they are prepared in the laboratory and compared with previously collected material.

Pre-construction assessment of significance associated with an area or formation must be made based on previous finds, characteristics of the sediments, and other methods that can be used to determine paleoenvironmental conditions. A separate issue is the potential of a given geographic area or geologic unit to preserve fossils. Information that can contribute to assessment of this potential includes:

1) The existence of known fossil localities or documented absence of fossils nearby and in the same geologic unit (e.g. "Formation" or one of its subunits);
2) Observation of fossils within the Project vicinity;
3) The nature of sedimentary deposits in the area of interest, compared with those of similar deposits known elsewhere (size of particles, clasts and sedimentary structures conducive or non-conducive to fossil inclusion) that may favor or disfavor inclusion of fossils; and
4) Sedimentology details, and known geologic history, of the sedimentary unit of interest in terms of the environments in which the sediments were deposited, and assessment of the favorability of those environments for the probable preservation of fossils.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

BACKGROUND

ENVIRONMENTAL SETTING

The Project Area is located at 11537 Grovedale Drive in the CDP of East Whittier, 4.3 miles southeast of the downtown area of the City of Whittier. The City of Whittier and East Whittier lie at the foot of the Puente Hills, approximately 12 miles southeast of Los Angeles, in Los Angeles County (City of Whittier 2019a). The Project Area is located within a heavily developed area and is surrounded by existing residential neighborhoods to the south and west. Elevations within the Project Area average 76 meters (m) (250 ft) above mean sea level (AMSL). The climate of the area is characterized as Mediterranean with mild winters and dry summers. Vegetation within the Project Area is limited to overgrowth of weeds and grasses, with some commercial landscaping present.

PALEONTOLOGICAL SETTING

Los Angeles County is situated within the Transverse Ranges Geologic Province and the City of Whittier is situated within the area known as the Los Angeles Basin. Divided into four blocks, the Project Area lies within the Central Block. This section includes the low portions of the Los Angeles coastal plain to Orange County, the Coyote Hills uplift, the La Habra Valley, the San Joaquin Hills and both Newport and Huntington Beach mesas (Norris and Webb 1976). The Whittier Fault zone is located northeast of the Project Area, within the Chino Hills range. The entire Project Area is mapped as Quaternary alluvium (Q) by Jennings, Strands, and Rogers (1977) (Figure 4). Updated maps further subdivide the mapped geological unit in the Project Area to Older Quaternary alluvium (Qoa) and marine deposits (Jennings et al. 2010). To the south and southeast of the Project Area are exposures of the late Pleistocene La Habra Formation (McLeod 2019).

Older Quaternary alluvium (Qoa) is unconsolidated to semi-consolidated deposits derived from alluvium, lake, playa, and terrace. These older surficial sediments are elevated, dissected remnants of alluvial sand and gravel (Dibblee and Ehrenspeck 2001).

La Habra Formation (Qlhc): This formation is weakly indurated and is composed of tan to light grey, vaguely bedded sandstone and pebble conglomerate. This formation includes abundant siliceous shale pebbles south of Puente Hills and interbedded siltstone in the middle part of the unit (Dibblee and Ehrenspeck 2001).

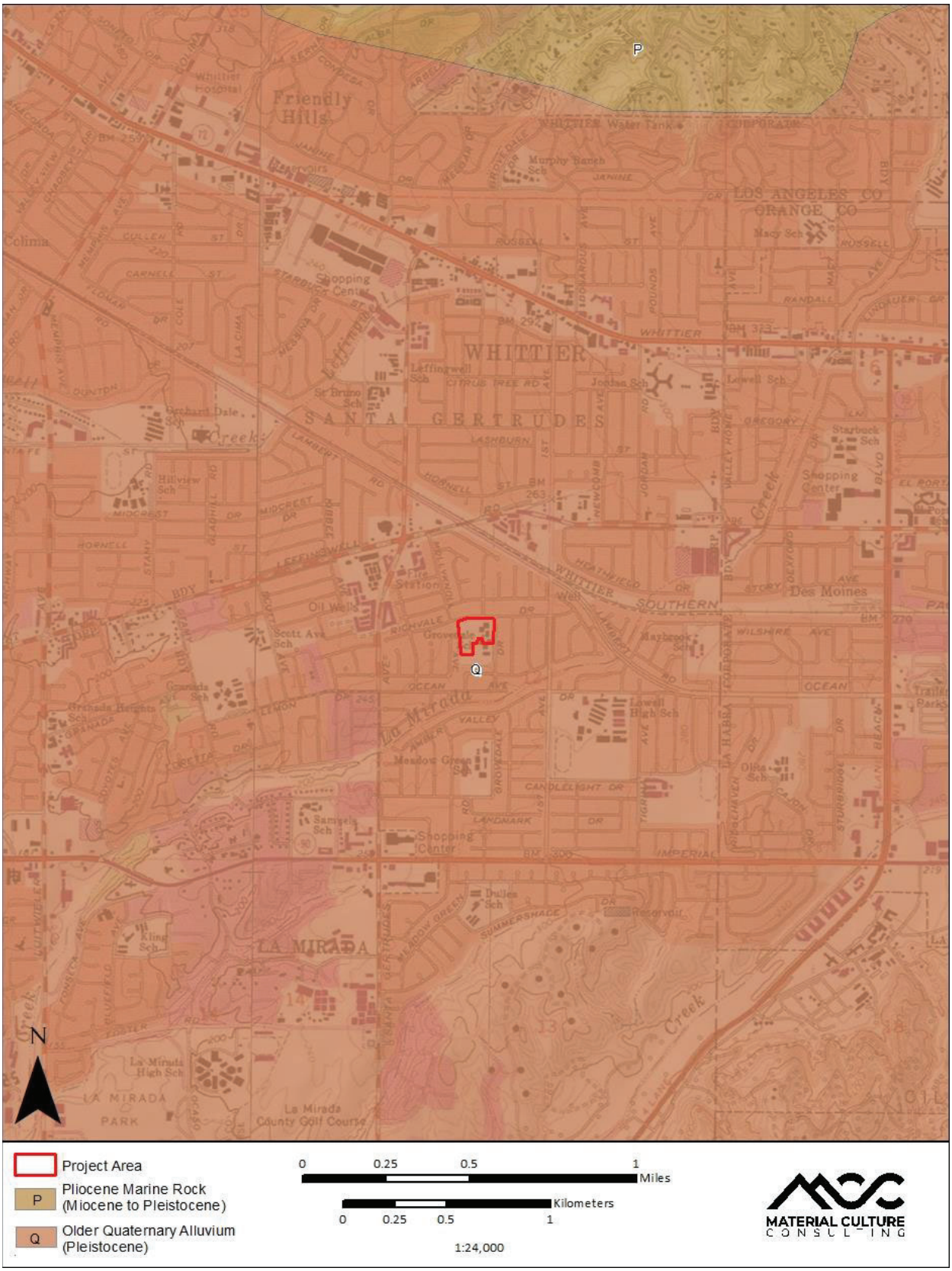


Figure 4. Grovedale and Richvale Residential Tract Project Geological Map (1:24,000; from Jennings, Strand, and Rogers 1977)

PREHISTORIC CONTEXT

The prehistoric cultural chronology for the proposed Project Area is based on chronological information provided by Wallace (1955), Mason, Koerper and Langenwalter (1997), and Koerper, Mason and Peterson (2003). Three prehistoric periods are defined:

Milling Stone Period
The Milling Stone Period dates back well over 8,000-3,000 years before present (YBP) and is characterized by a generalized plant collecting economy supplemented by hunting and fishing. Regional interaction is limited when compared to later periods. Sites from this period appear to be part of an expansion of settlement to take advantage of new habitats and resources that became available as sea levels stabilized between about six to five thousand years ago. Gorges were used for fishing and mano/metate pairs were used to process plant materials. Most sites were in coastal areas. Around 3500 YBP, there was an economic shift to more reliance on hunting. Sites attributed to this period appear to have been occupied by small groups of people. This period persisted over thousands of years without great change (Mason et al. 1997; Koerper et al. 2003).

Intermediate Period
The Intermediate Period dates from roughly 3000-1000 YBP and is associated with a number of socioeconomic changes (Wallace 1955). Sites attributed to this time period indicate an increased reliance on coastal resources and with continued reliance on hunting and collecting. In addition, the advent of the bow and arrow, the appearance of increased quantities of bone tools, and increased reliance on the mortar and pestle, typify this time period. The first circular fishhooks appear in the tool kit in this period and use of plant grinding tools increases. Hunting tools consist of the atlatl and dart. Most sites were in coastal areas (Mason et al. 1997; Koerper et al. 2003).

Late Prehistoric Period
The period dates from 1, 350 YBP to 150 YBP and is characterized by an increasing political-economic-social complexity. Villages tend to be larger, with a more varied assemblage, and there appears to be an increase in smaller satellite sites, established to support the main village, and reflecting seasonal use of a particular area. There seems to be more intensive exploitation of localized resources, and social contacts and economic influences appear accelerated through trade and social interaction. There is an increase in the number of sites in the area, which are interpreted as a result of population increase. The Late Period was a time when there are a greater number of more specialized sites in terms of their location and function, and an amplification of all aspects of the cultural system. In this period the atlatl and dart hunting tools are replaced by the bow and arrow. In addition, manos/metates were gradually replaced by pestle/mortars. Use of other traditional tools continued. Settlement was expanded into the hills and canyons inland (Mason et al. 1997; Koerper et al. 2003).

ETHNOGRAPHY

Ethnographic records identify the lands in the Los Angeles basin inhabited by a large Native American population at the time of contact by the Spanish. It is unknown what these people called themselves before the Spanish arrived, but today they call themselves “Tongva”, meaning “people of the earth”. The southern extent of their culture area is bounded by Aliso Creek, the eastern extent is located east of present-day San Bernardino along the Santa Ana River, the northern extent includes the San Fernando Valley, and the western extent includes portions of the Santa Monica Mountains. The Tongva also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of southern California. Trade of materials and resources controlled by the Tongva extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California (Johnson 1962; Kroeber 1976; Bean and Smith 1978). The area that includes Whittier was called “Sejatngna” by the Tongva

(Garabedian and Ruud 2016). After European contact, many Tongva were induced to live at Mission San Gabriel, originally located in present-day Whittier Narrows on a small tributary of the San Gabriel River (Garabedian and Ruud 2016). They were then given the Spanish name "Gabrielino" in reference to the Native Americans associated with the Mission San Gabriel. Most Mission Indians were trained as vaqueros, sheepshearers, farm laborers and domestic laborers and continued in those professions after the mission were secularized (Talley 1984).

Villages were comprised of 50-100 people. Each community included one or more patrilineal extended families or lineal kinship groups (clans) (Kroeber 1976; Johnson 1962; Bean and Smith 1978; McCawley 1996). Each village was united under the leadership of a chief who inherited the position from his father. The chief was the leader of the religious and secular life of the community and served as chief administrator, fiscal officer, war leader, legal arbitrator and religious leader (Harrington 1942; Bean and Smith 1978). The chief was assisted by a Council of Elders consisting of the heads of the lineages residing in the community. Shamans were also important as doctors, therapists, philosophers and intellectuals (Bean 1974).

The Tongva/Gabrielino tribe carried out food exploitation strategies that utilized local resources ranging from plants to animals; coastal resources were also exploited. Rabbit and deer were hunted and acorns, buckwheat, chia, berries, fruits and many other plants were collected. Artifacts associated with their occupations include a wide array of chipped stone tools including knives and projectile points, wooden tools like digging sticks and bows, and ground stone tools like bedrock and portable mortars, metates and pestles. Local vegetation was used to construct shelters as well as for medicinal purposes. Cooked foods were prepared on hearths (Kroeber 1976; Bean and Smith 1978; McCawley 1996).

Acorns were one of the most important food resources utilized by the Tongva/Gabrielino and other Native American groups across California. The acorns were ground into a fine powder in order to make an acorn mush or gruel. A dietary staple, acorns provided a large number of calories and nutrients. The ability to store and create stockpiles in case of lean times also contributed to the importance of acorns as a vital natural resource. Much of the material evidence available to archaeologists concerning the Tongva/Gabrielino is a result of tools and technologies related to their subsistence activities.

The arrival of Europeans marked the end of traditional lifestyle of the Native American populations. The population faced forced conversions, subjugations, compulsory relocation to the San Gabriel Mission, and the institution of slave labor (Garabedian and Ruud 2016). European diseases also decimated the Native American population. The following years into the American Period (post 1848) did not improve conditions for Native American populations in California, including the Tongva/Gabrielino. New laws during this time period had adverse effects on the Native Americans in California. New labor laws virtually turned the Native population into slaves, with many Euro-Americans exploiting the situation as well as fostering the institutionalization of kidnapping Native children throughout California (Castillo 1978).

HISTORICAL SETTING

While indigenous peoples adapted to environmental conditions in what is now California, those same lands remained isolated from European and Asian cultures until the early-sixteenth century. In 1521, Spain sent explorer and conquistador Hernan Cortes and his army into what is now Mexico to conquer the indigenous Aztecs and capture the wealth of the land and its people. "New Spain," as the region soon became known, quickly became the hub of Spanish colonial efforts in the New World. Cortes, hopeful of finding comparable wealth in the northern Pacific, authorized the first explorations, and in 1535, founded the first nonnative settlement in Baja (or Lower) California. Inspired by Cortes' success in the New World and hoping to find a waterway from the Pacific to the Atlantic, the Spanish dispatched Juan Rodriguez Cabrillo in 1542 to explore the northwest coast of New Spain. It is believed that Cabrillo sailed as far north as the Oregon border, and that he became the first European to see what

was then termed "Alta (or Upper) California" (Paddison 1999: xi).

In 1602, the Spanish Crown ordered Sebastian Vizcaino to make the first detailed survey of the Alta California coast. Vizcaino eventually anchored at Monterey Bay, and in subsequent reports to Spain, greatly exaggerated the quality of the natural harbor he found (Paddison 1999: xii). Despite Vizcaino's inflated recommendations, it took the Spanish almost 170 years to act. The so-called "Sacred Expedition" of 1769, led by Spaniard Gaspar de Portola and Franciscan Fray (or Father) Junipero Serra, was meant to begin the permanent settlement of Alta California, beginning in San Diego. The plan called for the Spanish to converge on San Diego by land and sea, and to use the newly established San Diego settlement as a base to begin further colonization and mission-building activities along the California coast.

The Portola expedition consisted of colonists to settle in selected pueblos or towns; missionaries to convert the natives and prepare them to become "civilized" enough to assume control of the land which the missions held in trust for the Indians; and, soldiers to establish military strong points or "presidios" to protect both groups, as well as to keep foreign interests such as Russia or England from invading lands claimed by Spain. The Mission San Gabriel Arcángel was established in 1771 and served as a main supply station between Mexico and Monterey. Five years later, a flood wiped out the mission complex and its surrounding crops, forcing the relocation of the mission five miles upstream to its current location (Garabedian and Ruud 2016). In 1784 Manuel Nieto, a Spanish soldier, received a Spanish land grant, known as *Rancho Los Nietos*, which included present-day Whittier (Whittier Community Development 2019).

During Mexican rule in California, Mexico began to secularize the missions in the 1830s and issued land grants to rancheros. Nieto's Spanish land grant was broken up into these smaller Mexican land grants. In 1835, Juan Crispin Perez received a land grant and established *Rancho Paso de Bartolo* (Figure 5), which encompassed part of present-day Whittier (Whittier Community Development 2019). Perez cultivated livestock and grazed herds of cattle and sheep on the flatlands and hillsides that would eventually become Whittier (Garabedian and Ruud 2016). Perez sold five parcels of *Rancho Paso de Bartolo* to Pio de Jesus Pico, the last Mexico-appointed Governor of California (City of Whittier 2019a). In 1852, Pico built an adobe home on the east bank of the San Gabriel River, El Ranchito (little ranch), located in present-day west Whittier (Garabedian and Ruud 2016), where he lived for four decades and is now the Pio Pico State Historic Park (City of Whittier 2019a).



Figure 5. Map of the Spanish and Mexican ranchos of Los Angeles County with *Rancho Paso de Bartolo* outline (Eddy 1937).

By 1848, Mexico's rule over California had ended and westward expansion into the region was in full swing. The Homestead Act of 1862 helped grant public land to private owners. One recipient, a German immigrant named Jacob Gerkins, was granted 160 acres in 1868 in present day Whittier. In 1879, Gerkins sold his property to John Thomas, who established a 1,259-acre ranch (Whittier Community Development 2019). The ranch was subsequently sold in 1887 to the Pickering Land and Water Company, who in turn parceled the land to establish a Quaker colony (Figure 6) (Whittier Community Development 2019). Around the same time, the Southern Pacific Railroad built the first railroad spur to Whittier.

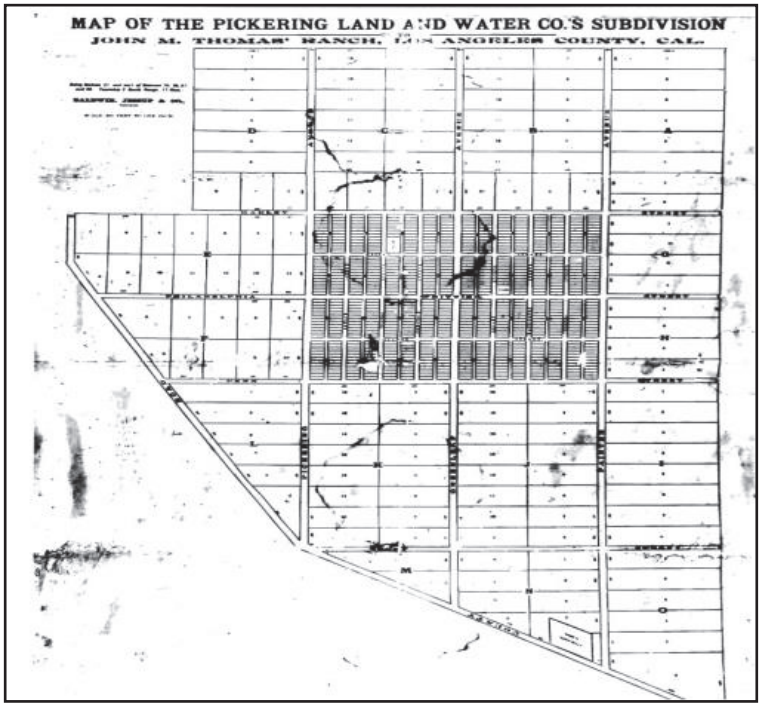


Figure 6. Map of the Quaker Colony, circa 1887 (Whittier Community Development 2019)

The development of the Quaker community lead to the incorporation of Whittier in 1898, with 585 residents. The name Whittier was chosen to pay homage to fellow Quaker John Greenleaf Whittier, a famous poet, writer, and newspaper editor of the time (City of Whittier 2019a). The community was prosperous in its agricultural endeavors, which included lemons, oranges, and walnuts. By the 1890s, the citrus industry was booming and by 1901 the Whittier Citrus Association was formed and "Quaker Brand" citrus was known around the world (City of Whittier 2019a).

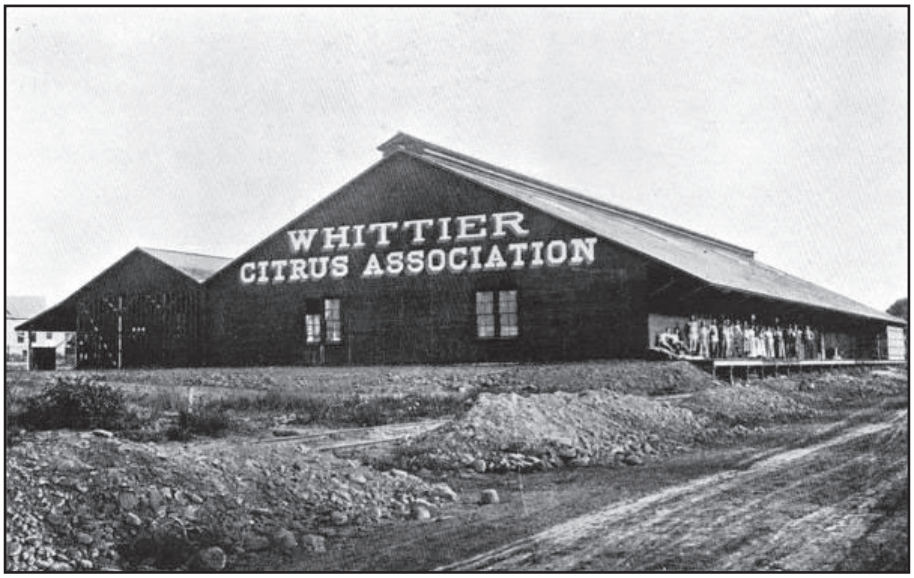


Figure 7. The Whittier Citrus Association packing house, circa 1904 (Whittier Community Development 2019)

During the 1920s and 1930s, development in the area was geared towards the automobile and by 1930, the city had reached a population of 14,822 (Whittier Community Development 2019). Throughout the Great Depression, Whittier's agriculture and oil industries thrived. While these industries experienced a decline after WWII, growth continued as distribution and manufacturing prospered due to proximity of Los Angeles (Whittier Community Development 2019).

After WWII, growth in Whittier was fueled by returning soldiers, new families moving west, and rising birth rates. By 1960, the population had reached 33,663 and more than doubled to 72,863 by 1970 (Whittier Community Development 2019). The Project Area is located in an area that underwent dramatic development during this period. Extensive urbanization began in the neighborhoods surrounding the Project Area during the 1960s. Prior to 1975, an elementary school was established within the Project Area. Known as Lowell Elementary School, it closed in 1975 due to low enrollment (Cruz 1996). In 1996, Carden Academy moved to the Project Area, where it has been in operation to this day (Cruz 1996).

METHODS

CALIFORNIA HISTORIC RESOURCES INVENTORY SYSTEM AND CULTURAL BACKGROUND RESEARCH

On November 7, 2019, 2019, Erika McMullin conducted a search of the California Historical Resource Information System (CHRIS) at the South Central Coast Information Center (SCCIC), located at California State University, Fullerton, Orange County. The search identified previously recorded cultural resources and investigations within a 1-mile radius of the Project Area. The CHRIS search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Inventory of Historical Resources.

NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH

A Sacred Lands File search was requested by MCC from the Native American Heritage Commission (NAHC) on October 9, 2019. The Commission responded on October 23, 2019, stating that there are no known tribal cultural resources or sacred lands within a 1-mile radius of the Project Area. The NAHC requested that five Native American tribes or individuals be contacted for further information regarding the general Project vicinity. MCC subsequently sent letters on October 25, 2019 to the five Native American contacts, requesting any information related to cultural resources or heritage sites within or adjacent to the Project Area. Additional attempts at contact by letter, email, or phone call were made on November 6, 2019 and November 14, 2019. MCC did not conduct formal consultation with the Native American representatives.

PALEONTOLOGICAL RECORDS SEARCH

The literature review included an examination of geologic maps of the Project Area and a review of relevant geological and paleontological literature to determine which geologic units are present within the Project Area and whether fossils have been recovered from those geologic units elsewhere in the region. As geologic units may extend over large geographic areas and contain similar lithologies and fossils, the literature review includes areas well beyond the Project Area. The results of this literature review include an overview of the geology of the Project Areas and a discussion of the paleontological sensitivity (or potential) of the geologic units within the Project Area. A search for paleontological records was completed by staff of the Natural History Museum of Los Angeles County (LACM) in Los Angeles on October 25, 2019. The record search included a one-mile radius around the Project Area, as well as the Project Area itself, and identified any vertebrate localities in the museum's records that exist near the Project Area in the same or similar deposits.

CULTURAL AND PALEONTOLOGICAL FIELD SURVEY AND SITE VISIT

The survey stage is important in a Project's environmental assessment phase to verify the exact location of each identified cultural or paleontological resource, the condition or integrity of the resource, and the proximity of the resource to areas of cultural resources sensitivity. In addition, the field survey provides invaluable information on the type of sediment present within the Project Area, which informs the assessment of paleontological sensitivity. Natalie Adame, MCC Archaeologist and cross-trained Paleontologist, conducted the survey and site visit of the proposed Project Area on October 31, 2019. The survey consisted of walking in parallel transects spaced at approximately 15-meter intervals over the Project parcel, while closely inspecting the ground surface. All undeveloped ground surface areas within the ground disturbance portion of the Project Area were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Existing ground disturbances (e.g. cutbanks, ditches, animal burrows, etc.) were visually inspected. Representative photographs were taken of the entire Project Area.

RESULTS

CALIFORNIA HISTORIC RESOURCES INVENTORY SYSTEM AND CULTURAL BACKGROUND RESEARCH

The CHRIS records search identified a total of thirteen cultural and one paleontological investigations that have been previously conducted within a 1-mile radius of the Project Area, five of which are located within a ½ -mile of the Project Area. There were no previous studies intersecting the Project Area (see Table 1). The records search identified no previously recorded cultural resources within the Project Area or within 1-mile of the Project Area.

Table 1. Previously Conducted Investigations Within 1-mile Buffer of Project Area

CHRIS Report Number	Author(s)	Year	Title of Study	Affiliation	Distance from Project Area
LA-03066	Maki, Mary K.	1994	A Phase 1 Cultural Resources Survey of 0.98 Acres at 11237 Gladhill Road Los Angeles County, California	Fugro West, Inc.	Within 1-mile
LA-03071	Maki, Mary K.	1994	A Phase 1 Cultural Resources Survey of 2.04 Acres at 15315 Leffing Well Road Los Angeles County, California	Fugro West, Inc.	Within 1-mile
LA-04838	Bissell, Ronald M. and Rodney Raschke	1986	A Cultural and Paleontological Resources Assessment of the Chevron-la Mirada Project Property, Los Angeles County	Ronald Bissell	Within 1-mile
LA-08297	Losee, Carolyn	2007	Cultural Resources Analysis for Royal Street Communications, Llc Site # La2255a: Lascari's, 16255 Whittier Blvd., Whittier, Ca 80603	Archaeological Resources Technology	Within 1-mile
LA-08394	Bonner, Wayne H.	2006	Cultural Resources Records Search Results and Site Visit for T-mobile Candidate La02993 (affordable Pool), 11100 Gertrudes Avenue, Whittier, Los Angeles County, California	Michael Brandman Associates	Within ½-mile
LA-08395	Mason, Roger D.	2001	Cultural Resources Records Search and Literature Review Report for an American Tower Corporation Telecommunications Facility: Number La_688_n3 Telegraph Substation in the City of Whittier, Los Angeles County, California	Chambers Group, Inc.	Within ½-mile
LA-08396	Bonner, Wayne H. and Christeen Taniguchi	2004	Records Search Results and Site Visit for Sprint Telecommunications Facility Candidate La60x100b (affordable Pool) 11100 Santa Gertrudes Avenue, Whittier, Los Angeles County, California	Michael Brandman Associates	Within ½-mile
LA-08405	Harper, Caprice D.	2004	Cultural Resource Assessment Cingular Wireless Facility No. Sc 147-02, La Mirada, Los Angeles County, California	LSA Associates, Inc.	Within 1-mile
LA-08406	Demcak, Carol R.	2003	Report of Archaeological Survey Results for Bechtel Project #950023005a, Lascari's Restaurant, Whittier, California	Archaeological Resource Management Corp.	Within 1-mile
LA-08902	Johnson, Brent	2007	Cultural Resources Records Search for La2255a/lascari's Restaurant 16255 Whittier Blvd., Whittier, California 90603, Ebi Project #61070715, Paratus Project #-07-101.061	EBI Consulting	Within 1-mile

Table 1. Previously Conducted Investigations within 1-mile Buffer of Project Area

CHRIS	Author(s)	Year	Title of Study	Affiliation	Distance

Report Number					from Project Area
LA-08920	Johnson, Brent	2007	Cultural Resources Records Search for Royal Street Communications La2253b/sce Telegraph Substation, Leffingwell Road/lambert, Whittier, California 90603 Ebi Project #61070716, Paratus Project # - 07-101.060	EBI Consulting	Within ½-mile
LA-10227	Bonner, Wayne H. and MBA Sarah A. Williams	2009	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33943A (SCU Chiropractic), 16200 Amber Valley Drive, Whittier, Los Angeles County, California	MBA	Within 1-mile
LA-11030	Wlodarski, Robert J.	2011	Record Search and field reconnaissance for the proposed AT&T Wireless Telecommunications Site LA3177 (Plaza One) located at 16201 Whittier Boulevard, Whittier, California 90603	Cellular, Archaeological, Resource, Evaluations	Within 1-mile
OR-01291	Elliot, John F. and James Brock	1993	A Cultural Resources Assessment for the Imperial Highway Project, Orange County, California	Archaeological Advisory Group	Within 1-mile Within 1-mile

The complete results of the CHRIS resources records search are included as Confidential Appendix B of this report.

Several additional sources were consulted for this Project (Table 2). These additional sources did not identify significant potential for historic era or prehistoric cultural resources.

Table 2. Additional Sources Consulted for the Project

Source	Results
National Register of Historic Places (1979-2002 & supplements)	Negative
Historical United States Geological Survey Topographic maps (USGS 2012)	
Historical United States Department of Agriculture Aerial Photos	
California Register of Historical Resources (1992-2010)	Negative
California Inventory of Historic Resources (1976-2010)	Negative
California Historical Landmarks (1995 & supplements to 2010)	Negative
California Points of Historical Interest (1992 to 2010)	Negative
Local Historical Register Listings	Negative
Bureau of Land Management General Land Office Records	Negative

A review of historical aerial photographs and maps indicate that minimal development occurred within the Project Area prior to the 1950s (Figure 8). Within 10 years, a drastic encroachment of residential and commercial development can be observed via the aerial photography, with structures observed within the Project Area (Figure 9). Continued development in and surrounding the Project Area has continued into to present day (Figure 10).



Figure 8. Project Area showing minimal development (as depicted on 1953 aerial photography)



Figure 9. Project Area showing residential and commercial development (as depicted on 1963 aerial photography)



Figure 10. Project Area present day (as depicted on 2003 aerial photography)

NATIVE AMERICAN OUTREACH AND BACKGROUND RESEARCH

As a result of the effort to contact the five Native American Tribes or individuals identified by the NAHC, MCC received one response. On November 1, 2019, MCC received an email from Admin Specialist for The Gabrieleno Band of Mission Indians-Kizh Nation. The email stated that Andrew Salas, Chairperson, would like to request the contact information of the individual(s) from the lead agency and the Tribal Council would like to provide confidential information in a government to government consultation. As of November 15, 2019, no other additional groups or individuals have responded with information about the Project Area. All written NAHC and Native American correspondence materials and our communication log are provided as Appendix C.

PALEONTOLOGICAL RECORDS SEARCH

The record search results from the LACM (McLeod 2019, Appendix D) do not indicate any fossils have been found directly within the Project Area, but did note nearby localities from similar sedimentary deposits. The surficial deposits mapped within the Project Area are comprised of younger Quaternary alluvium in the northern portion of the Project Area and older Quaternary alluvium in the south (McLeod 2019). These deposits are derived from the Puente Hills alluvial fans to the north east and the La Mirada creek that flows to the south. While the younger deposits typically do not contain significant vertebrate fossils within the uppermost layers, older Quaternary deposits at relatively shallow depths may contain the remains of significant fossil vertebrates (McLeod 2019).

The closest vertebrate fossil locality from similar deposits is LACM 3347, situated west-northwest of the proposed Project Area on Leffingwell Road east of La Mirada Boulevard. This location produced a horse fossil specimen (*Equus)* at only two feet below the surface. The closest vertebrate fossil locality in the La Habra Formation is LACM 1052, located southeast of the proposed Project Area along Imperial Highway near the Los Angeles and Orange County line. This locality produce a suite of fossil vertebrates including white shark (*Carcharodon arnoldi)*, turkey (*Meleagris californica),* ground sloth (*Paramylodon)*, mastodon (*Mammut)*, mammoth (*Mammuthus)*, horses

(*Plesippus* and *Equus)*, camel (*Camelops)*, deer (*Odocoileus)*, and pronghorn antelope (*Antilocapra americana*) (McLeod 2019). These vertebrae fossils were discovered at a depth of about 40 feet below the surface. A little further east along Imperial Highway, west of Beach Boulevard, our locality LACM 3538 from a roadcut in the La Habra Formation produced a fossil specimen of mammoth (*Mammuthus)*. Additional literature was consulted, including The University of California Museum of Paleontology (UCMP)'s Miocene Mammal Mapping Project (MioMap), which did not result in additional fossil localities within the vicinity of the Project Area.

CULTURAL AND PALEONTOLOGICAL FIELD SURVEY AND SITE VISIT RESULTS

During the course of fieldwork, the majority of the Project Area was not accessible, due to restricted access to the Carden Academy grounds. While MCC was unable to survey the Project Area that included the school grounds, the area was observed from the perimeter of the Project Area and found to be entirely developed into the school campus, both with buildings and landscaping. The areas that were surveyed had a ground visibility ranging from poor (<20%) to Fair (50%) due to wood chips and grass covering the ground. The majority of the Project Area is developed with grasses, shrubbery, landscaping and other weeds covered most of the non-asphalt/concrete portions of the Project Area. Along Richvale Drive, a number of pine trees are located within the area, causing pine duff to be on the ground surface limiting visibility (Figures 11 through 13). The soil observed in this area consisted of silty loam with angular and subangular pebble-sized inclusions (Figure 14). For the surveyed area along Grovedale Drive, the soil was comprised of dark brown clay. Bioturbation was observed throughout the Project Area (Figure 15). No cultural or paleontological resources were observed during the survey effort.



Figure 11. Overview of Project Area/Carden Academy Whittier, view south/southwest



Figure 12 Overview of Project Area from N/W corner, looking towards Grovedale Drive and Richvale Drive intersection, view northeast.



Figure 11. Representative area of Project Area not accessible for survey, view southeast



Figure 14. Representative photo of surficial deposits observed on Richvale Drive, plan view



Figure 12. Representative photo of surficial deposits observed on Grovedale Drive, plan view

CONCLUSIONS AND RECOMMENDATIONS

CULTURAL RESOURCES CONCLUSIONS

The Phase I cultural resource assessment of the Project Area included a CHRIS records search, NAHC outreach, background research, and a field pedestrian survey. The records search identified no previously recorded cultural resources within neither the Project Area or within 1-mile of the Project Area.

CULTURAL RESOURCES RECOMMENDATIONS

Based on the results of the cultural resources records search and survey, the proposed Project Area is considered to have low to unknown sensitivity for presence of prehistoric or historical archaeological deposits. Due to the extensive prior disturbance and development of the Project Area, it is unlikely that crews will encounter significant cultural resources during Project development.However, due to the fact that most of the Project Area surface was obscured by landscaping and construction of the school, it is recommended that the Project Applicant retain the services of an on-call archaeologist to respond to inadvertent discoveries of cultural resources that may be unearthed during construction. In addition, we recommend setting a plan in place, prior to construction, to expediently address inadvertent discoveries and human remains, should these be encountered during earth moving activities.

INADVERTENT DISCOVERIES

Despite actions taken to ensure that all cultural resources are located prior to construction, including record searches and field surveying, there remains the possibility that undiscovered, buried archaeological resources might be encountered during construction. If these resources are inadvertently discovered during ground-disturbing activities, work must be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation or fossil recovery, may be warranted and would be discussed in consultation with the appropriate regulatory agency(ies).

HUMAN REMAINS

Pursuant to State Health and Safety Code §7050.5, if human remains are encountered, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Further, pursuant to PRC §5097.98 (b), remains shall be left in place and free from disturbance until a final decision as to the treatment and their disposition has been made. If the Coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law, 24 hours. Subsequently, the NAHC shall identify the Most-Likely-Descendent (MLD) of any human remains. The MLD shall then make recommendations and engage in consultation with the property owner and the County Archaeologist concerning the treatment of the remains, as provided in PRC §5097.98. Human remains from other ethnic/cultural groups with recognized historical associations to the Project Area shall also be subject to consultation between appropriate representatives from that group and the County Archaeologist.

PALEONTOLOGICAL RESOURCES CONCLUSIONS

The Phase I paleontological resource assessment of the Project Area included a locality records search, literature review, and a field pedestrian survey. No significant paleontological resources were identified within the direct Project Area during the locality search or the field survey. The geological units mapped within the Project Area are comprised of younger Quaternary alluvium in the north and older Quaternary Alluvium in the south, derived from La Puente Hills to the northwest via from LA Miranda Creek. While young deposits typically do not contain significant vertebrate fossils, the Older Quaternary alluvium deposits at shallow depths have the potential to

contain significant fossil vertebrates. There are noted nearby localities discovered within similar sedimentary deposits at shallow depths. Therefore, MCC recommends the Project Area be considered moderate to high sensitivity to have the potential for construction activities of the proposed Project to impact underlying paleontological resources.

PALEONTOLOGICAL RESOURCES RECOMMENDATIONS

Based on the above findings, MCC recommends including initial full-time paleontological monitoring to salvage, and curate any recovered fossils discovered during ground disturbing activities. If substantial excavations are necessary, prior to the start of construction a paleontological resource monitoring plan (PRMP) should be prepared and implemented. MCC recommends that a trained and qualified paleontological monitor should perform full-time monitoring of any excavations on the Project that have the potential to impact paleontological resources in undisturbed native sediments below 2 feet in depth. The monitor will have the ability to redirect construction activities to ensure avoidance of adverse impacts to paleontological resources.

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Appendix A:
Qualifications

Tria Belcourt, M.A., RPA
President and Principal Environmental Specialist

MATERIAL CULTURE
CONSULTING

Tria Belcourt oversees and is responsible for the entire work process at Material Culture Consulting. She is responsible for planning, supervising, and overseeing field projects, including responsibility for the professional quality of evaluations and recommendations. Tria has primary accountability for the technical completeness and competence of work conducted by her staff. She is responsible for development of work plans and/or research designs, for performance of crew chiefs, for selection standards and limitations on work assignments of crew members, for analysis and interpretation of field data, for integration of fieldwork results into comparative regional perspectives, and for preparation of reports. Tria's advanced academic training and more than twelve years of professional archaeological experience has included rigorous training and application of anthropological and archaeological theory and methods, and in recording, collecting, handling, analyzing, evaluating, and reporting cultural property data, relative to the type and scope of work proposed.

Tria has been an archaeological project manager and principal investigator for over six years, leading and managing several complex compliance projects throughout the State of California and in Southern Nevada, which have involved each step of cultural resource compliance and management. Prior to this, she spent six years as a field technician and crew chief on projects throughout California and the Southeastern United States. Her experience includes conducting background research, field survey, resource testing and formal NRHP/CRHR evaluation, data recovery plan development and implementation. She has prepared hundreds of technical reports for all of the above to state and federal standards, including following BLM standards for GIS spatial data management and technical reporting – ranging from simple clearance forms, to letter reports, to extensive data recovery reports. She was the lead preparer of the Fort Irwin Integrated Cultural Resource Management Plan (2009-2013) and has also prepared several cultural resource management plans for state regulated projects. She has overseen and conducted archaeological monitoring and management of unanticipated discovery of resources, including Native American human remains on federal lands (and repatriation of the remains), and reported the results and outcomes of cultural resource monitoring efforts in lengthy technical reports. Finally, Tria regularly provides third party and QA/QC review of cultural resource technical documents, due to her keen understanding of state and federal regulations and laws governing the management of cultural resources throughout the state of California.

Education

2014 Graduate Certificate in Environmental Management of Military Lands, Colorado State University
2010 Professional Certification in CEQA/NEPA, ICF International Corporation
2009 M.A. in Anthropology, University of Florida Gainesville, Florida
Professional Certification in GIS
2006 B.A. in Anthropology, Magna Cum Laude, University of California, Los Angeles, California

Affiliations/Certifications/Training

- American Rock Art Research Association (ARARA)
- Archaeological Institute of America (AIA)

- Eastern States Archaeological Federation (ESAF)
- Midwest Archaeological Conference, Inc. (MAC)
- Ohio Archaeological Council (OAC)
- Society for American Archaeology (SAA)
- Public Education Committee Member 2015-current
- Society for Historical Archaeology (SHA)
- Society for California Archaeology (SCA)
- Workshop in Current Archaeological Prospection Advances for Non- Destructive Investigations in the 21st Century (2003)
- GPS Technology Course, Ball State University (2004)
- GLHS/MAST Nautical Archaeology Workshop and Training, National Museum of the Great Lakes,

Utility Sector Experience

Pacific Gas and Electric Company (PG&E), NERC Alert Program – Archaeological Principal Investigator; throughout California; 2015 – Present. Belcourt provides oversight of all task orders and project management of on-call task orders involving cultural resource desktop reviews, records searches and field reviews for the PG&E NERC Alert program: tracking and reporting efforts, maintaining project schedule, and timely submittal of data to prime contractor (ARCADIS).

Southern California Edison (SCE), On-Call and Emergency Projects – Archaeological Principal Investigator and Project Manager; throughout California, 2013 – Present. Belcourt provides oversight of all task orders and project management of on-call task orders involving cultural resource desktop reviews, records searches and field reviews for deteriorated poles, system upgrades, initial studies to support capital projects, and monitoring support to replace facilities due to natural disasters. This high-volume program includes preparing and submitting budgets, managing support staff and overseeing work, tracking and reporting efforts, maintaining project schedules, and preparing technical reports and GIS datasets for submittal to prime contractor (SWCA).

Southern California Edison (SCE), Small Capital Projects – Archaeological Principal Investigator and Project Manager; throughout California, 2014 – Present. Belcourt provides oversight of all task orders and project management of task orders involving cultural resources for this contract with ICF. This includes preparing and submitting budgets, managing support staff and overseeing work, tracking and reporting efforts, maintaining project schedule, and preparing technical reports and GIS datasets for submittal to prime contractor.

Southern California Edison (SCE), Coolwater Lugo Transmission Project –— Environmental Project Manager; San Bernardino County, California; 2014 – 2015. Belcourt provided oversight of all project management on CWLTP: tracking and reporting efforts of subconsultants (Pacific Legacy, Paleo Solutions and Urbana Preservation and Planning), maintaining project schedule and timely submittal of project deliverables to agency reviewers. Served as communication facilitator between SCE and BLM/CPUC agency reviewers. Provided final review of the Cultural Resources Technical Report (which included over 1,000 cultural resources) and the Historic Built Environment Report - prior to draft submittal to BLM.

SCE, Eldorado Ivanpah Transmission Project – In-house Consultant for Archaeology; San Bernardino County, California and Clark County, Nevada; 2010-2012. Belcourt provided complex regulatory oversight and project management regarding cultural and paleontological resource management. She developed cultural resource specific compliance training to inform and guide construction activities and

major capital project teams. She also developed and implemented internal cultural resource management programs based on the mitigation measures in the FEIR/EIS. Tria coordinated with BLM archaeologists on discovery and management of previously unknown cultural resources discovered during construction, and managed the treatment of these resources and reporting. She provided environmental analyses, technical reports, and clearance documentation for over 20 project modifications during construction without delay to project. Developed the cultural resources geodatabase for EITP and coordinated regularly with the project GIS team.

Silver State South Substation, In-house Consultant for Archaeology; Southern California Edison, Clark County, NV; 2010-2012. Provided regulatory oversight and project management regarding cultural and paleontological resource management during project licensing and scoping. Identified potential impacts to cultural and paleontological resources, developing appropriate mitigation measures in preparation for and projecting alternative conclusions.

Tehachapi Renewable Transmission Project, Multiple Roles; Southern California Edison, Segments 1-3 and Segments 6-11, Kern, Los Angeles and Orange County, CA; 2009 - Present. Tria provided service to this project over seven years in multiple roles – archaeological field monitor, project coordinator, in-house consultant at SCE, and principal investigator. She provided regulatory oversight and project management regarding cultural and paleontological resource management for all segments of TRTP. Developed and implemented internal cultural resource management programs based on the mitigation measures in the Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) for TRTP, and for the existing Special Use Permits and Record of Decision for TRTP, issued by the Angeles National Forest (ANF). Oversaw preparation of the Historic Properties Treatment Plans, fieldwork and technical report preparation for two large-scale Phase III Data Recovery excavations on Angeles National Forest. Coordinated with ANF archaeologists on discovery and management of previously unknown cultural resources identified during construction. Provided cultural resources analyses and clearance documentation, including technical reports, for over 100 project modifications during construction without delay to project. Finally, Tria was responsible for maintaining the geospatial data for the project within the SCE cultural resources geodatabase TRTP and coordinated with the project GIS team.

Desert Tortoise Habitat Conservation Plan Area, Principal Investigator; Cadiz Inc., San Bernardino County, CA; 2013. Oversaw records search to identify the extent of previous cultural resources surveys and all previously recorded prehistoric and historic resources within the 7,500-acre Desert Tortoise Habitat Conservation Plan (HCP) area (Project Area) located on lands administered by the BLM Needles Field Office in unincorporated San Bernardino County, California.

Selected Publications

Belcourt, T.

2014- 2016 *Southern California Edison – TRTP Segments 6 and 11C - Cultural Resources Monitoring Report*, Prepared Monthly (October 2014-March 2016) for Angeles National Forest (ANF) and SCE. On file at ANF and SCE Irwindale.

2013 *Cultural and Paleontoloical Resource Assessment for the Ames/Reche Groundwater Storage and Recovery Program, Winters Road Flow Control and Recharge Facility, Mojave Water Agency, Landers, San Bernardino County, California.* Prepared by Cogstone Resource Management, Inc. On file at Mojave Water Agency.

2014 *Cultural and Paleontological Monitoring Compliance Report for Street and Storm Drain Improvements, Jackson Avenue Bridge at Warm Springs Creek, City of Murrieta, Riverside County.* Prepared by Cogstone Resource Management, Inc. On file at City of Murrietta Planning Department.

2014 *Cultural and Paleontological Resource Assessment for the OC-44 Pipeline Rehabilitation and*

Replacement Project, Mesa Water District, Newport Beach, Orange County, California. Prepared by Cogstone Resource Management, Inc. On file at Mesa Water District.

2015 *Archaeological Monitoring and Survey Report, Southern California Edison Dead Tree Removal*
near Pine Flat, Tulare County, California. Submitted to SCE and on file at SCE Irwindale.

2015 *Class III Cultural Resources Survey of the Pacific Gas & Electric Company (PG&E) Kerckhoff #1-Kerckhoff #2 115kV and Kerckhoff-Clovis-Sanger 115kV Projects, located on Lands Administered by the Bureau of Land Management (BLM), Bakersfield Field Office, within Fresno County, California*. Prepared on behalf of PG&E and submitted to BLM Bakersfield Office. On file at PG&E, Fresno.

2015 *Class III Cultural Resources Survey of the SCE Shoshone Emergency Response Location, on Lands Administered by the Bureau of Land Management (BLM), Barstow Field Office, within Inyo County, California*. Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.

2015 *Cultural Resources Assessment of Effect for Southern California Edison TD835602: Deteriorated Pole Replacement, Sequoia National Park, Three Rivers Area, Tulare County, California.* Prepared on behalf of SCE for Sequoia National Park. On file at SCE Irwindale.

2015 *Cultural Resources Impact Assessment for Southern California Edison TD1037389: Line Extension – Soda Springs 12 kV, Tulare County, California.* Prepared for SCE. On file at SCE Irwindale.

2015 *Cultural Resources Inventory for Southern California Edison's Replacement of Nine Deteriorated Power Structures (TD993840, TD994158, and TD1029116), near Kramer Junction, on Lands Administered by the Bureau of Land Management Barstow Field Office, San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.

2015 *Cultural Resources Monitoring for Southern California Edison IO328390: Replace Pole and Upgrade Overhead Switch – Dinkey Creek 4kV (TD721303). Sierra National Forest, High Sierra District, Fresno County, California.* Prepared on behalf of SCE for Sierra National Forest. On file at SCE Irwindale.

2015 *Cultural Resources Survey in Support of a Request for Final Engineering Concurrence for Tehachapi Renewable Transmission Project Segment 8 T/L West (Phase IV) – Erosion Repair Associated with Structure M43-T3, unincorporated Los Angeles County, California*. Submitted to SCE and CPUC. On file at SCE Irwindale.

2015 *Cultural Resources Survey in Support of a Temporary Work Change Request for Wire Setup Sites, Distribution Pole Work Area, and Access Road near Structure M57-T2 for Segment 8, Tehachapi Renewable Transmission Project, unincorporated Los Angeles County, California*. Submitted to SCE and CPUC. On file at SCE Irwindale.

2015 *Results of Faunal Analysis for the Los Angeles Metropolitan Transportation Authority (Metro) Division 13 Bus Maintenance and Operation Facility Construction Project, City of Los Angeles, Los Angeles County, California.* Submitted to Metro. On file at Resource Sciences and Planning, LLC, Monrovia.

2016 *Archaeological Monitoring Compliance Report, Pacific Gas & Electric Company NERC Alert Program, Helms-Gregg 230kV Grading Project, Sierra National Forest, Fresno County, California.* Prepared on behalf of PG&E and submitted to Sierra National Forest. On file at PG&E, Fresno.

2016 *Archaeological Resource Assessment, SCE Infrastructure Replacement- Pickle Meadows 12kV, Toiyabe National Forest, Bridgeport, Inyo County, California.* Prepared on behalf of SCE and submitted to Toiyabe National Forest. On file at SCE, Irwindale.

2016 *Cultural Resources Assessment: 84 Lumber Company Project, City of Lancaster, Los Angeles County, California*. Prepared on behalf of 84 Lumber Company for City of Lancaster. On file at Material Culture Consulting, Claremont.

2016 *Cultural Resources Assessment of Effect for Southern California Edison TD1029531: Deteriorated Pole Replacement on Lands Administered by Bureau of Land Management, Ridgecrest Field Office, near Mojave, Kern County, California.* Prepared on behalf of SCE. On file at SCE Irwindale.

2016 *Cultural and Paleontological Resources Records Searches and Field Survey, Tandis Homes Residential Development, City of Menifee, Riverside County, California*. Prepared for City of Menifee. On file at Material Culture Consulting Claremont.

2016 *Class III Cultural Resources Survey of the Southern California Edison Company Replacement of Thirteen Deteriorated Poles Near Lockhart and Flamingo Heights, on Lands Administered by the Bureau of Land Management, Barstow Field Office, within San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow Field Office. On file at SCE Irwindale.

2016 *Phase I Cultural and Paleontological Assessment: Tandis Homes 21 Lot Residential Development Project City of Menifee, Riverside County, California.* Prepared on behalf of Ridgemoor Investments, LLC for City of Menifee Planning Department. On file at Material Culture Consulting, Claremont.

Belcourt, T. and S. Gust

2014 *Class III Cultural Resource Investigations for Bodie Hills Desert Restoration Projects, Bureau of Land Management, Bishop Field Office, Mono County, CA - FY13-14.* Prepared by Cogstone Resource Management, Inc. for BLM Bishop Field Office. On file at BLM Bishop Field Office.

2015 *Class III Cultural Resource Investigations for Bodie Hills Desert Restoration Projects, Bureau of Land Management, Bishop Field Office, Mono County, CA - FY14-15.* Prepared by Cogstone Resource Management, Inc. for BLM Bishop Field Office. On file at BLM Bishop Field Office.

Belcourt, T., T. Jackson, M.Kay and R. Moritz

2016 *Class III Cultural Resources Inventory for the Southern California Edison Company Kelly Cutover Project (FWA 680-16-07), Volume I – Archaeological Resources, San Bernardino County, California*. Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.

Belcourt, T. and M. Kay

2016 *Southern California Edison Company Replacement of Three Deteriorated Poles Near Fort Irwin, on Lands Administered by the Bureau of Land Management, Barstow Field Office, San Bernardino County, California.* Prepared on behalf of SCE and submitted to BLM Barstow. On file at Resource Sciences and Planning, LLC Monrovia.

Belcourt, T., M. Kay, and R. Moritz

2016 *Cultural Resources Assesment of the State of California Department of General Services and Department of State Hospitals, Metropolitan Hospital, Norwalk, Los Angeles County, CA.* Prepared for DGS/DSH. On file at Resource Sciences and Planning, LLC, Monrovia.

Belcourt, T. and J. Kelly

2016 *Cultural and Paleontological Resources Assessment: Village 605 Environmental Impact Report Addendum, City of Los Alamitos, Orange County, California.* Prepared for City of Los Alamitos on behalf of Katella Property Owner, LLC by Material Culture Consulting, on file at Material Culture Consulting, Claremont.

Belcourt, T., K. Scott and S. Gust

2013 *Paleontological and Archaeological Assessment of the Bloomington Affordable Housing Project, San Bernardino County, California*. Prepared by Cogstone Resource Management, Inc., On file at Cogstone Resource Management, Inc., Orange.

Belcourt, T., M. Valasik, and S. Gust

2013 *Class III Cultural Resource Investigation for the Cadiz Solar Array Desert Tortoise Habitat*

Conservation Plan Area, on Lands Managed by BLM Needles Field Office, San Bernardino County, CA. Prepared by Cogstone Resource Management on behalf of Cadiz, Inc.

Daly, P. and T. Belcourt

2016 *Class III Cultural Resources Inventory for the Southern California Edison Company Kelly Cutover Project (FWA 680-16-07), Volume II – Historic Built Environment Resources, San Bernardino County, California*. Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.

Technical Report QA/QC and Third-Party Review (representative selection)

Lamb, Meghan

2016 *Archaeological Resources Monitoring Report: Lot 19 Tustin Legacy (Tustin Air Base) Project, City of Tustin, Orange County, California.* Prepared by Paleo Solutions, Inc., and submitted to City of Tustin, California. On file at Paleo Solutions, Monrovia.

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 6, Los Angeles County, California*. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 7, Los Angeles County, California*. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 8, Los Angeles County, California*. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.

Kelly, J. and G. Aron

2015 *Final Paleontological Monitoring Report: Tehachapi Renewable Transmission Project, Segment 11, Los Angeles County, California*. Prepared for SCE by Paleo Solutions, Inc., and submitted to ANF and CPUC. On file at SCE Irwindale.

Tinsley-Becker, W.

2015 *Cultural Resources Inventory for the SCE Coolwater-Lugo Transmission Project, San Bernardino County, California, Volume 1: Historic-Era Built Environment Survey Report.* Submitted to BLM Barstow Field Office, On file at Resource Sciences and Planning, LLC, Monrovia.

Pacific Legacy, Inc.

2015 *Cultural Resources Inventory for the SCE Coolwater-Lugo Transmission Project, San Bernardino County, California, Volume 2: Archaeological Resources.* Submitted to BLM Barstow Field Office, On file at Pacific Legacy, Inc., Berkeley.

Webster, B.

2016 *Archaeological Monitoring Report: OCTA San Juan Capistrano Rail Side Passing Project, City of San Juan Capistrano, Orange County, California*. Prepared for Earth Mechanics, Inc. by Paleo Solutions, Inc. On file at Paleo Solutions, Monrovia.

Webster, B. and M. Kay

2016 *Archaeological Survey Report for the Southern California Edison Company Replacement of Five Deteriorated Power Poles on an Unnamed Circuit (TD 979272), Topanga State Park, Los Angeles County, California.* Prepared by Paleo Solutions, Inc., on behalf of SCE.

2015 *Archaeological Survey Report for the Southern California Edison Company Replacement of One Deteriorated Power Pole on an Unnamed Circuit (TD 1020522), Topanga State Park, Los Angeles County, California.* Prepared by Paleo Solutions, Inc., on behalf of SCE.

2015 *Archaeological Survey Report for the Southern California Edison Company Replacement of Two Deteriorated Power Poles on the Vicasa 16kv Circuit (TD 1039350), Topanga State Park, Los Angeles County, California.* Prepared by Paleo Solutions, Inc., on behalf of SCE.

Jennifer Kelly, M.Sc.
Paleontological Project Manager

MATERIAL CULTURE
CONSULTING

Jennifer Kelly has experience in all aspects of paleontology. She has extensive experience with monitoring, salvage, fieldwork, project management, and report writing, as well as volunteer experience from the La Brea Tar Pits/Page Museum and the Cooper Center of Orange County (Paleontology department) and field experience as a Staff Geologist for Leighton Geotechnical. Her expertise is Geology, and she has her M.S. in Geological Sciences, emphasis in Geochemistry.

Jennifer has taught lab courses in paleontology and general geology, and also assisted with field mapping classes. Jennifer is HAZWOPER 40-hour certified and a registered Orange County paleontologist. She has authored and co-authored more than 100 paleontological compliance documents, including PRMPs, EIR, EIS, PEA, treatment plans, final monitoring reports, survey reports, and other compliance documents, in compliance with NEPA, CEQA, Caltrans and city and county laws, ordinances, regulations, and statutes.

Education

2012 M.Sc. in Geology, California State University, Long Beach, California
2005 B.S., Geology (preliminary work for entry to M.S. Geology Program), California State University, Long Beach
2004 B.A., Theater Arts, California State University, Long Beach

Certifications and Training

- 40 Hour Certification for HAZWOPER training under 29 CFR 1910. 120, CA (2013 – 2014)
- Orange County Certified Paleontologist
- San Diego County Certified Paleontologist

Utility Sector Experience

Paleontological Project Manager, Harvill Industrial Project, City of Jurupa Valley, Riverside County, California (2017-present). Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, prepared the Paleontological Resources Impact Mitigation Plan (PRIMP). This project is ongoing and is scheduled to be complete in 2020.

Paleontological Project Manager, West Ontario Commerce Center, City of Ontario, County of San Bernardino, California (2018-present) Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, and authored the PRIMP for this project. This project is ongoing and is scheduled to be complete in 2020.

Paleontological Project Manager, Cadiz Ground Water Project, San Bernardino County, California (2012-2013. Kelly conducted all research and data collection for the Cadiz Groundwater Conservation and Storage Project for completion of a DEIR section on paleontological resources. Based on the results of the analysis, Kelly prepared the mitigation measures which were designed to reduce potential adverse impacts to paleontological resources.

Paleontological Project Manager, Manzana Wind Express Project, Kern County, California (2012-2015). Kelly prepared the Paleontological Mitigation Monitoring Resource Plan, which allowed her to develop a key role in presenting environmental training programs to construction workers and other environmental compliance monitors. She also authored the final paleontological monitoring report. The Project's construction consisted of the installation more than 300 wind energy turbines, aligned along approximately 26 rows, on the 6,275-acre proposed site. The Manzana Wind Energy Project site was found to have the potential for scientifically significant paleontological resources that could be impacted by construction-related ground disturbance. She co-authored the final paleontological mitigation report in compliance with CEQA and Kern County guidelines.

Paleontological Project Manager, Pacific Wind Express Project, Kern County, California (2008-2009). Kelly prepared the Paleontological Mitigation Monitoring Resource Plan, which allowed her to develop a key role in presenting environmental training programs to construction workers and other environmental compliance monitors. She co-authored the final paleontological mitigation report.

Paleontological Project Manager, Tehachapi Renewable Transmission Project (TRTP), Southern California Edison (SCE), Kern County, Los Angeles County, San Bernardino County (2009-2015). Kelly conducted and led surveys along this project's right of

way. She was also in charge of scheduling monitoring crews during grading in areas of paleontological sensitivity, managing and reviewing log sheets, and tracking data that is incorporated to final reports. Ms. Kelly played a valuable role with scheduling for the project's needs. She monitored, surveyed, and reported on all paleontological facets of this project as the Lead Paleontological Monitor for segment 3B, which was located near Rosamond, and for segments 4-11 which extended into Los Angeles and San Bernardino Counties. She authored more than 10 of the compliance reports for this project. She also performed monitoring on every segment of this Project.

Paleontological Project Manager, SCE, Valley South Subtransmission Line Project, Riverside County, California (2007-2010). Kelly managed scheduling and provided oversight for coordination of all surveying, preparation of compliance and environmental documentation for this project, including three proposed alternatives, and co-wrote the final PEA and survey reports, utilizing CEQA and Riverside County paleontological guidelines.

Paleontological Project Manager, SCE, San Joaquin Cross Valley Loop Project, Tulare County, California (2010-2013). Kelly assisted with coordination of all surveying, preparation of compliance and environmental documentation for this project, and co-authored the final Paleontological Monitoring Plan for this project.

Paleontological Project Manager, SCE, Devore Substation Project, San Bernardino County, California (2010-2012). Kelly prepared the compliance and environmental documents for this project, including paleontological inventory and geological map research.

Paleontological Project Manager, El Casco System-Transmission Line, SCE, throughout Riverside County (2011-2014). Kelly performed paleontological monitoring. Her duties included salvaging small and large fossils, screen washing and sorting fossils. She aided in the processing of microfossils collected from bulk sampling of fossil bearing sediment, and documenting stratigraphic locations of fossil bearing units. This project was in compliance with both CEQA and under the jurisdiction of the CPUC.

Paleontological Project Manager, ***South of Kramer Project, SCE, Hesperia to Barstow, San Bernardino, County (2009-2016)***. Kelly provided project management and compliance surveying, which included surveying from Hesperia to Barstow, CA for a Proponent's Environmental Assessment (PEA). All portions of the Proposed Project were located within San Bernardino County, California. Kelly co-authored the final survey report for this Project. A BLM Permit was authorized for the survey.

Paleontological Project Manager, ***OC Access Road Grading, SCE, Orange and Riverside County (2010-2011).*** Kelly assisted in documentation for the cultural resources portion, which include information regarding the location and condition of archaeological and paleontological sites recorded at or near the access roads, and recommends impact avoidance measures for future years in implementing the Protocol for 73 known archaeological sites. This required extensive coordination with Orange County Fire Authority grading department, SCE's Operations and Maintenance (O&M), and Orange County Parks. Trimble units were used for the documentation before and after grading of access roads. Communication played a key role when strategizing which locations were being graded where and when. The company came in under budget because of Kelly's efficiency and ability to coordinate and schedule.

Paleontological Project Manager, West of Devers Transmission Line Project, SCE, Riverside County, California (2009-2016). Kelly provided all project management and paleontological related services. This included proper BLM authorization and permitting to conduct surveying and a research design for field reconnaissance related to PEA, EIS/EIR documentation for the proposed transmission line. She assisted with managing documentation with laws relating to paleontological resources, among which are CEQA and NEPA compliance.

Paleontological Project Manager, Pacific Gas and Electric (PG&E), Line 300A/MP 147.7 and 180.8 Projects, San Bernardino County, California (2005-2006). Kelly prepared the mitigation recommendations and a paleontological inventory report for this project. She also was responsible for scheduling surveys on BLM and United States Marine Corps lands.

Paleontological Project Manager, PG&E, Jefferson to Stanford No. 2 60 kV Feasibility Project, San Mateo County, California (2012-2014). Kelly assisted with the preparation of the paleontological resources review and paleontological inventory report (PIR) and Proponent's Environmental Assessment (PEA) for this project. Several potential routes were assessed for this project, and the feasibility and paleontological potential was determined for this project. The report and PIR were prepared according to CEQA guidelines.

Paleontological Project Manager, ***Camp Pendleton Project, SDG&E, throughout San Diego and Orange Counties (2013-2017).*** Kelly provided on-call paleontological services for this project. She was a key facet in report production and research which enabled her firm to perform all survey and monitoring work required on Camp Pendleton for CEQA/NEPA check list assessments requested from SDG&E. Kelly was cleared from the Department of Defense in order to conduct work on the base. Site assessments and monitoring include all work related to: future location of power poles and towers, water control features, trenching and subsurface excavations, access roads, grading impacts to develop substations and other facilities, work pads, staging yards, and gas pipelines.

Appendix B:
(CONFIDENTIAL) CHRIS Results

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03066		1994	Maki, Mary K.	A Phase 1 Cultural Resources Survey of 0.98 Acres at 11237 Gladhill Road Los Angeles County, California	Fugro West, Inc.	
LA-03071		1994	Maki, Mary K.	A Phase 1 Cultural Resources Survey of 2.04 Acres at 15315 Leffing Well Road Los Angeles County, California	Fugro West, Inc.	30-000572
LA-04838	Paleo -	1986	Bissell, Ronald M. and Rodney Raschke	A Cultural and Paleontological Resources Assessment of the Chevron-la Mirada Project Property, Los Angeles County	Ronald Bissell	30-000572
LA-08297		2007	Losee, Carolyn	Cultural Resources Analysis for Royal Street Communications, Llc Site # La2255a: Lascari's, 16255 Whittier Blvd., Whittier, Ca 80603	Archaeological Resources Technology	
LA-08394		2006	Bonner, Wayne H.	Cultural Resources Records Search Results and Site Visit for T-mobile Candidate La02993 (affordable Pool), 11100 Gertrudes Avenue, Whittier, Los Angeles County, California	Michael Brandman Associates	
LA-08395		2001	Mason, Roger D.	Cultural Resources Records Search and Literature Review Report for an American Tower Corporation Telecommunications Facility: Number La_688_n3 Telegraph Substation in the City of Whittier, Los Angeles County, California	Chambers Group, Inc.	
LA-08396		2004	Bonner, Wayne H. and Christeen Taniguchi	Records Search Results and Site Visit for Sprint Telecommunications Facility Candidate La60x100b (affordable Pool) 11100 Santa Gertrudes Avenue, Whittier, Los Angeles County, California	Michael Brandman Associates	
LA-08405		2004	Harper, Caprice D.	Cultural Resource Assessment Cingular Wireless Facility No. Sc 147-02, La Mirada, Los Angeles County, California	LSA Associates, Inc.	
LA-08406		2003	Demcak, Carol R.	Report of Archaeological Survey Results for Bechtel Project #950023005a, Lascari's Restaurant,whittier, California	Archaeological Resource Management Corp.	
LA-08902		2007	Johnson, Brent	Cultural Resources Records Search for La2255a/lascari's Restaurant 16255 Whittier Blvd., Whittier, California 90603, Ebi Project #61070715, Paratus Project #-07-101.061	EBI Consulting	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-08920		2007	Johnson, Brent	Cultural Resources Records Search for Royal Street Communications La2253b/sce Telegraph Substation, Leffingwell Road/lambert, Whittier, California 90603 Ebi Project #61070716, Paratus Project # - 07-101.060	EBI Consulting	
LA-10227		2009	Bonner, Wayne H. and Sarah A. Williams	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33943A (SCU Chiropractic), 16200 Amber Valley Drive, Whittier, Los Angeles County, California	MBA	
LA-11030		2011	Wlodarski, Robert J.	Record Search and field reconnaissance for the proposed AT&T Wireless Telecommunications Site LA3177 (Plaza One) located at 16201 Whittier Boulevard, Whittier, California 90603	Cellular, Archaeological, Resource, Evaluations	
OR-01291		1993	Elliot, John F. and James Brock	A Cultural Resources Assessment for the Imperial Highway Project, Orange County, California	Archaeological Advisory Group	30-000796, 30-177614

Appendix C:
NAHC and Native American Correspondence

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Grovedale and Richvale Residential Tract

County: Los Angeles

USGS Quadrangle Name: La Habra

Township: 3S **Range:** 11W **Section(s):** 12

Company/Firm/Agency: Material Culture Consulting, Inc.

Street Address: 2701-B N. Towne Ave

City: Pomona **Zip:** 91767

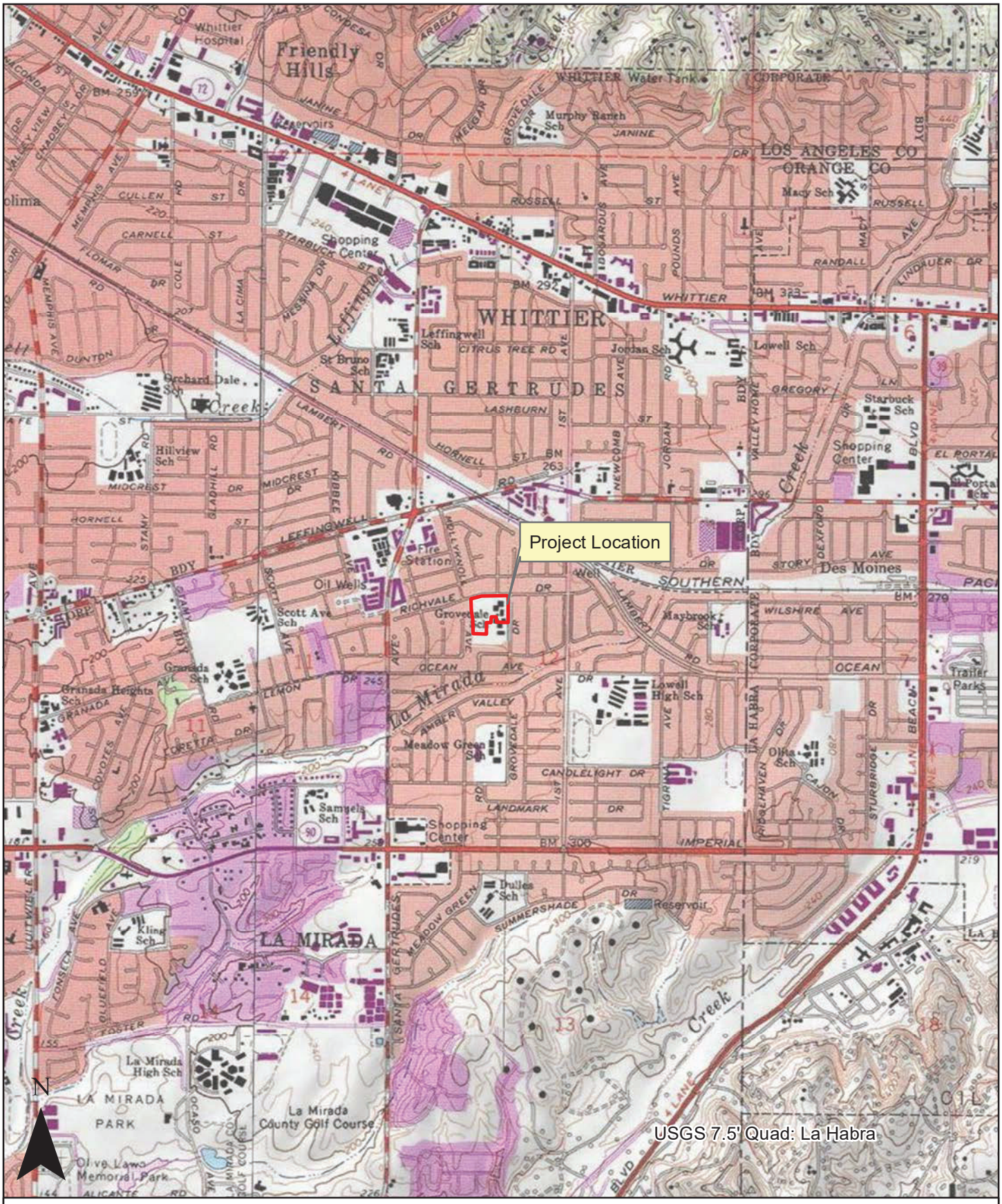
Phone: 626-205-8279

Fax: 626-249-0479

Email: tria@materialcultureconsulting.com

Project Description:

The project proposes the construction a residential complex in the city of Whittier, CA. Please see the attached 24k Topo for a detailed project location.


Project Location
USGS 7.5' Quad: La Habra
N
WHITTIER
SANTA GERTRUDES
LA MIRADA
Friendly Hills
Whittier Hospital
Shopping Center
Leffingwell Sch
St Bruno Sch
Orchard Dale Sch
Hillview Sch
Scott Ave Sch
Oil Wells
Fire Station
Granada Sch
Granada Heights Sch
Samsela Sch
Kling Sch
La Mirada High Sch
La Mirada County Golf Course
Olive Lawn Memorial Park
LA MIRADA PARK
Lowell Sch
Jordan Sch
Starbuck Sch
Murphy Ranch Sch
Macy Sch
Maybrook Sch
Lowell High Sch
Meadow Green
Dulles Sch
Reservoir
Des Moines
Trailer Parks
Project Area
0 0.25 0.5 1 Miles
0 0.25 0.5 1 Kilometers
1:24,000
MATERIAL CULTURE CONSULTING

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

October 23, 2019

Julia Carvajal
Material Culture Consulting

VIA Email to: tria@materialcultureconsulting.com

RE: Grovedale and Richvale Residential Tract Project, Los Angeles County

Dear Ms. Carvajal:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

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

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
10/23/2019

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Grovedale and Richvale Residential Tract Project, Los Angeles County.

October 24, 2019

****EXAMPLE LETTER****

RE: Proposed Grovedale and Richvale Residential Tract, City of Whittier; La Habra USGS Quadrangle, Los Angeles County, California.

Greetings,

The project proposes the construction a residential complex in the city of Whittier, Ca (see attached map). Material Culture Consulting, Inc (MCC) is conducting the cultural resources review of the project to support preparation of the environmental documents. As part of our background research and forthcoming survey, we would like to invite you to share any knowledge of potential cultural resources within the project area. Please note - this request is **not** part of any formal local, state, or federal consultation process, and all requests for consultation should be directed to the Los Angeles County as the Lead CEQA Agency.

Our firm contacted the Native American Heritage Commission (NAHC) on October 9, 2019 to request review of the Sacred Lands File and for a list of tribes with traditional lands and/or cultural places within the area. The NAHC responded on October 23, 2019 stating that the Sacred Lands File review resulted in **negative** results and provided your contact information as part of the list. We understand that negative results do not preclude the existence of cultural resources, and that a tribe may be the only source of information regarding the existence of a tribal cultural resource, which is why we are contacting you.

Project Location and Description

The proposed project is located at 11537 Grovedale Dr, Whittier Ca 90604. The proposed Project is bounded by Richvale Dr to the north and Grovedale Dr. to the east, existing industrial complexes to the south and an existing neighborhood to the west. The area of potential impact (API) would encompass a total of 251,300 sq. ft or approximately 5.77 acres. Specifically, the proposed Project is located within Section 12 of Township 3 South and Range 11 West on the USGS La Habra quadrangle (San Bernardino Base Meridian).

Please respond at your earliest convenience if you wish to share any knowledge of cultural resources within or adjacent to the API. Any information, concerns, or recommendations regarding cultural resources within the API can be shared with me via telephone, email, or via standard mail. Thank you very much for your assistance.

Kindest regards,

Tria Belcourt, M.A., RPA
President and Principal Archaeologist
626-205-8279
tria@materialcultureconsulting.com

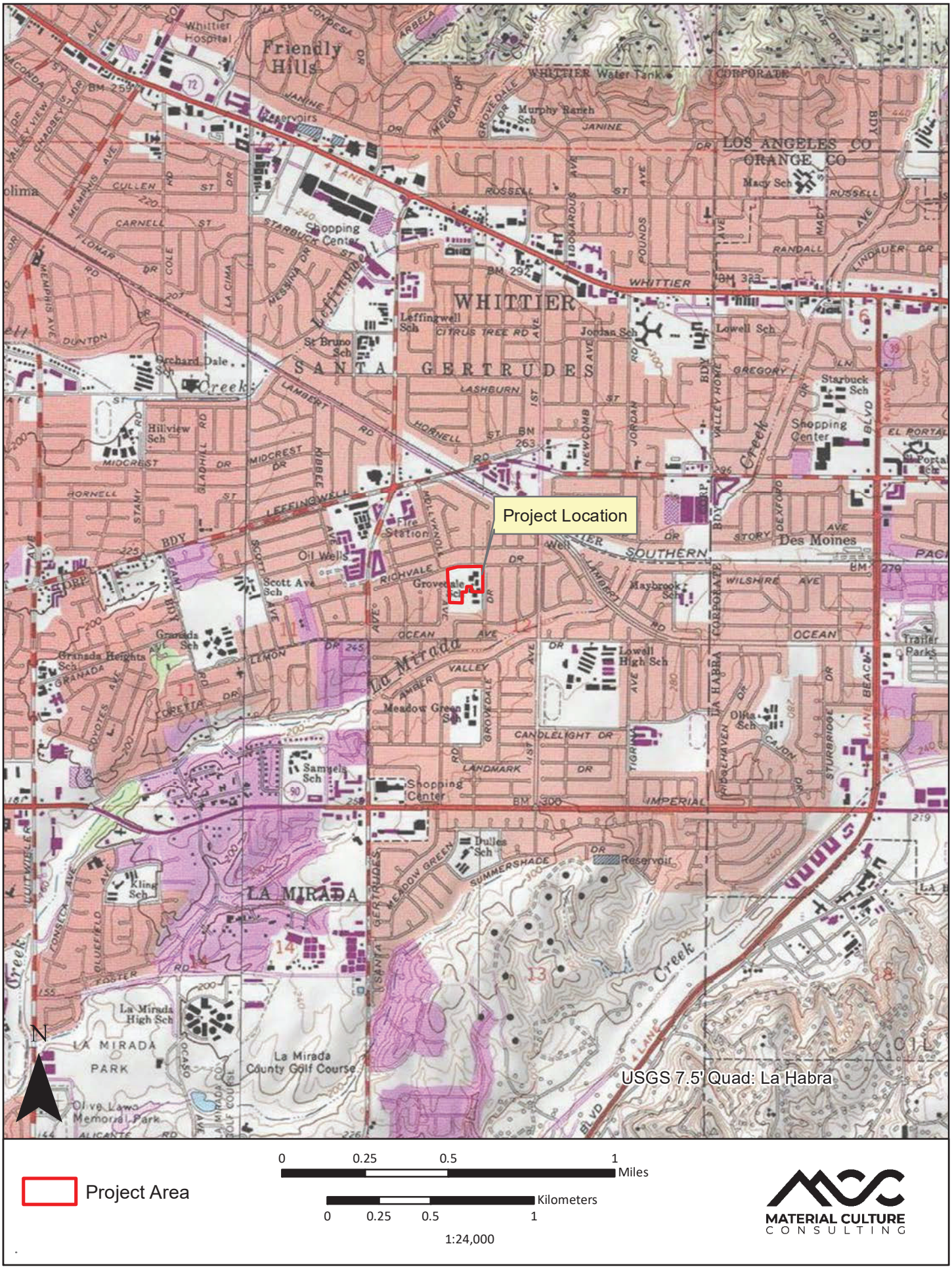


Figure 1. Project Location (1:24,000, as depicted on the USGS 7.5 minute La Habra quadrangle)

Grovedale and Richvale Residential Tract
CEQA Due Diligence Native American Contact Log
November 2019

Name/Affiliation	**Date and Method of 1st Contact**	**Date of 1st Follow Up Attempt**	**Date of 2nd Follow-Up Attempt**	**Results**	**MCC Response**
Andrew Salas, Chairperson Gabrieleno Band of Mission Indians - Kizh Nation	October 25, 2019- via USPS letter	Not necessary	Not necessary	Email received November 1, 2019 from Admin Specialist: Chairman Salas would like to request the contact information of the individual(s) of the lead agency and discuss the results directly with the government agency.	N/A
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians	October 25, 2019- via USPS letter	November 6, 2019- via email sent by Erika McMullin (CC'd Tria)	November 13, 2019 – via phone call by Brian Waldo – No answer, left voicemail	As of November 15, 2019, no response received.	N/A
Sandonne Goad, Chairperson Gabrielino /Tongva Nation	October 25, 2019- via USPS letter	November 6, 2019- via email sent by Erika McMullin (CC'd Tria)	November 13, 2019 – via phone call by Brian Waldo – No answer, did not leave voicemail because box was full	As of November 15, 2019, no response received.	N/A
Robert Dorame, Chairperson Gabrielino Tongva Indians of California Tribal Council	October 25, 2019- via USPS letter	November 6, 2019- via email sent by Erika McMullin (CC'd Tria)	November 13, 2019 – via phone call by Brian Waldo – Answered, requested another email-sent same day	As of November 15, 2019, no response received.	N/A
Charles Alvarez, Gabrielino-Tongva Tribe	October 25, 2019- via USPS letter	November 6, 2019- via email sent by Erika McMullin (CC'd Tria)	November 13, 2019 – via phone call by Brian Waldo – Call would not go through	As of November 15, 2019, no response received.	N/A

Gmail by Google

Sonia Sifuentes <sonia@materialcultureconsulting.com>

Fwd: Proposed Groverdale and Richvale Residential Tract, City of Whittier; La Habra USGS Quadrangle, Los Angeles County, California

1 message

Tria Belcourt <tria@materialcultureconsulting.com>
To: Sonia Sifuentes <sonia@materialcultureconsulting.com>, Julia Carvajal <julia@materialcultureconsulting.com>

Tria Belcourt, M.A., RPA # 917250
President and Principal Archaeologist

Material Culture Consulting, Inc.
Certified DBE/WBE/SBE

2701-B North Towne Avenue
Pomona CA, 91767
Phone: 626-205-8279
Fax: 626-249-0479

www.materialcultureconsulting.com
tria@materialcultureconsulting.com

The content of this email, including attachments, is the confidential property of Material Culture Consulting. If you are not the intended recipient, please delete all copies and notify us immediately. Thank you.

---------- Forwarded message ---------
From: **Administration Gabrieleno** <admin@gabrielenoindians.org>
Date: Fri, Nov 1, 2019 at 1:33 PM
Subject: Proposed Groverdale and Richvale Residential Tract, City of Whittier; La Habra USGS Quadrangle, Los Angeles County, California
To: Tria Belcourt <tria@materialcultureconsulting.com>

Dear Tria Belcourt,

Thank you for your letter dated October 24, 2019, regarding the above project. Chairman Salas would like to request the contact information of the individual(s) from the lead agency. The Tribal Council would like to provide co government to government consultation.

Sincerely,

Admin Specialist
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393
Covina, CA 91723
Office: 844-390-0787
website: www.gabrielenoindians.org

Attachments area

Appendix D:
LACM Locality Search Results

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

25 October 2019

Material Culture Consulting
2701-B North Towne Avenue
Pomona, CA 91767

Attn: Julia Carvajal, Archaeologist & GIS Specialist

re: Paleontological resources for the proposed Grovedale and Richvale Residential Project, in East Whittier, Los Angeles County, project area

Dear Julia:

I have conducted a thorough check of our paleontology collection records for the locality and specimen data for theproposed Grovedale and Richvale Residential Project, in East Whittier, Los Angeles County, project area as outlined on the portion of the La Habra USGS topographic quadrangle map that you sent to me via e-mail on 9 October 2019. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby from sedimentary deposits similar to those that occur in the proposed project area, either at the surface or at depth.

Geologic mapping indicate that the surface deposits consist of younger Quaternary Alluvium in the northern portion of the proposed project area and older Quaternary Alluvium in the southern portion of the proposed project area, both deposits derived as alluvial fan deposits from the Puente Hills to the northeast via from La Mirada Creek that flows immediately to the south. The younger Quaternary deposits typically do not contain significant vertebrate fossils in the uppermost layers but older Quaternary deposits at relatively shallow depth may well contain significant fossil vertebrate remains. Our closest vertebrate fossil locality from these deposits, LACM 3347, situated west-northwest of the proposed project area north of Leffingwell Road east of La Mirada Boulevard, produced a fossil specimen of horse, *Equus*, at a depth of only two feet below the surface.

Just to the south and southeast of the proposed project area there are exposures of the late Pleistocene La Habra Formation, and these deposits may occur at relatively shallow depth in the proposed project area. Our closest vertebrate fossil locality in the La Habra Formation is LACM 1052, just southeast of the proposed project area along Imperial Highway near the Los Angeles / Orange County line, that produced a suite of fossil vertebrates including white shark, *Carcharodon arnoldi*, turkey, *Meleagris californica*, ground sloth, *Paramylodon*, mastodon, *Mammut*, mammoth, *Mammuthus*, horses, *Plesippus* and *Equus*, camel, *Camelops*, deer, *Odocoileus*, and pronghorn antelope, *Antilocapra americana*, at a depth of about 40 feet below the surface. The specimen of the fossil turkey *Meleagris californica* from LACM 1052 is noteworthy because it was published in the scientific literature by H. Howard in 1936 (A New Record for *Parapavo californicus* (Miller). Condor, 38(6):249-250.) and by D. W. Steadman in 1980 (A Review of the Osteology and Paleontology of Turkeys (Aves: Meleagridinae). Contributions in Science, Natural History Museum of Los Angeles County, 330:131-207). A little further east along Imperial Highway, west of Beach Boulevard, our locality LACM 3538 from a roadcut in the La Habra Formation produced a fossil specimen of mammoth, *Mammuthus*. This mammoth specimen was mentioned in the scientific literature by R.F. Yerkes (1972. Geology of the Eastern Los Angeles Basin, Southern California. U.S. Geol. Surv. Prof. Paper, 420C.; pg. 25).

Even relatively shallow excavations in the proposed project area, in either the older Quaternary Alluvium or in the exposures of the La Habra Formation, may well encounter significant fossil vertebrate remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples from the proposed project area should also be collected and processed to determine the small fossil potential of the site. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX D: PHASE I SURVEY OF CARDEN WHITTIER SCHOOL CAMPUS

DALY & ASSOCIATES
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(951) 369-1366 ■ daly.rvrsde@sbcglobal.net

November 5, 2019

Jeremy Krout
President
EPD Solutions, Inc.
2 Park Plaza, Suite 1120
Irvine, CA 92614

Re: Phase 1 Survey of Carden Whittier School Campus, Whittier, Los Angeles County, CA

Dear Mr. Krout;

Daly & Associates is pleased to present our findings from the completion of a Phase 1 survey. The survey was undertaken to ascertain if there are potential historical resources situated at the site noted above. The survey of built-environment resources, and history of the Carden Whittier School (also known as Carden Academy of Whittier, and Carden Whittier Private School) property, 11537 Grovedale Drive, Whittier, was performed by Pamela Daly, Master of Science – Historic Preservation. Ms. Daly is a Principal Architectural Historian who exceeds the professional qualifications for architectural historians and historians set by the United States Secretary of the Interior.

The Carden Whittier School (Carden School) property, located within Assessor Parcel Number (APN) 8039-014-027, was surveyed to ascertain if any of the structures on the property, individually or collectively, have the potential to be considered historical resources under the criteria for listing a property in the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), or as a Historic Resource in the County of Los Angeles (County).[1]

Project Description

The Carden School campus is a 5.75 acre parcel located at 11537 Grovedale Drive, in an unincorporated of Los Angeles County surrounded by the City of Whittier.[2] The campus is situated within a community of residential tract housing that developed in the late 1950s.[3] (refer to Figure 1, Project Vicinity Map and Figure 2, Project Location Map, Figure 3 Aerial View, Figure 4 Aerial Site Plan). The proposed project involves the removal of the Carden School buildings, and the subdivision of the approximately 5.75-acre site into 28 residential lots and three lots for a flood control facility, open space, and a road.

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[1] California Register of Historical Resources: http://ohp.parks.ca.gov/?page_id=21238; Los Angeles County Historic Preservation Ordinance Title 22, Chapter 22.124: http://planning.lacounty.gov/assets/upl/data/title22_volumeI_CW.pdf#page=465

[2] Office of Assessor County of Los Angeles Map Book Index 8039.

[3] Per NETR Historic Aerial photographs taken in 1953 and 1963. https://www.historicaerials.com/

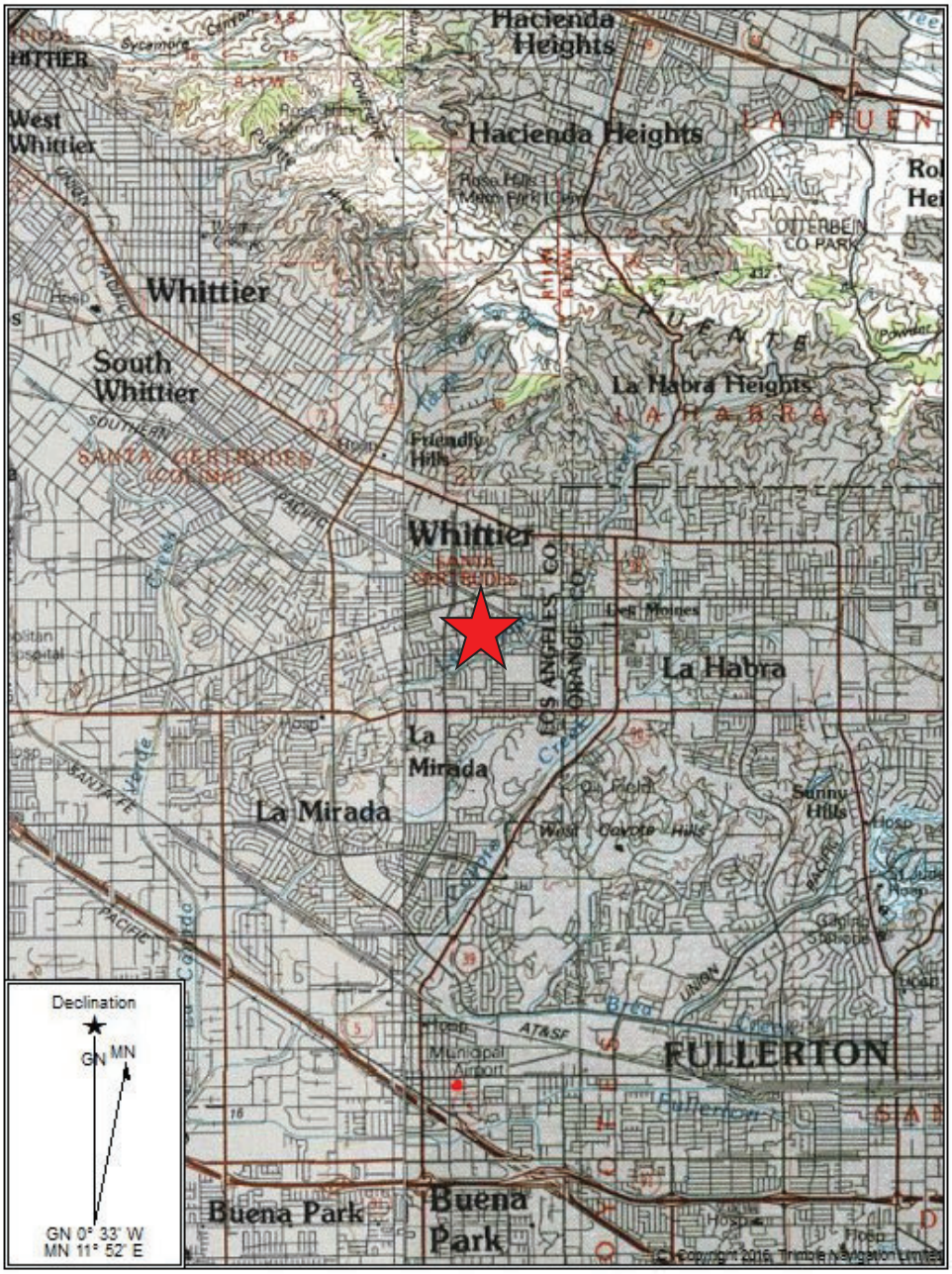
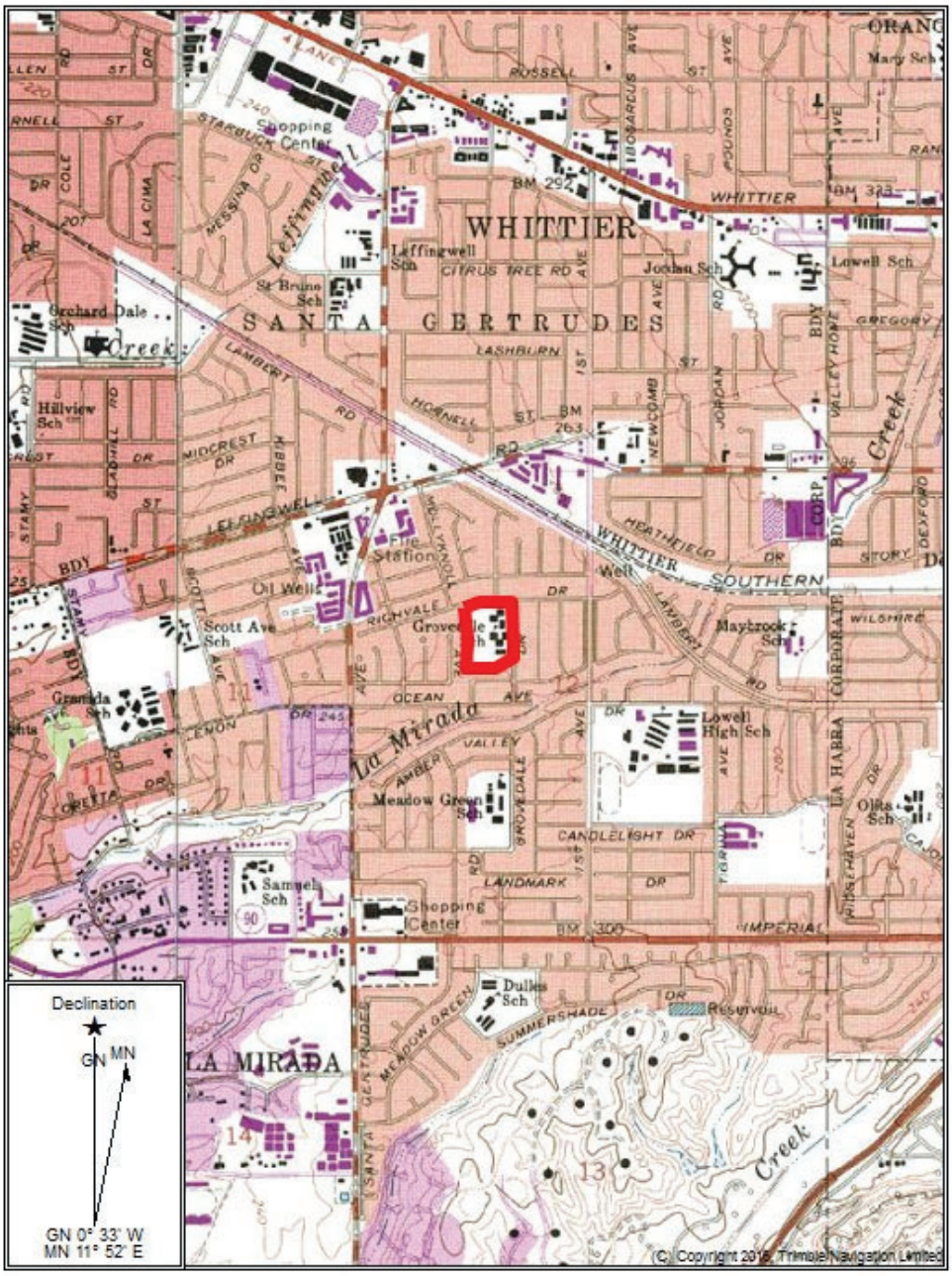


Figure 1: Project Vicinity
Carden Whittier School Campus, Un-incorporated Los Angeles County, CA



SCALE 1:24000

0 1000 2000 3000 4000

Feet

Figure 2: Project Location
Carden Whittier School Campus
11537 Grovedale Avenue, Whittier,
Los Angeles County, CA

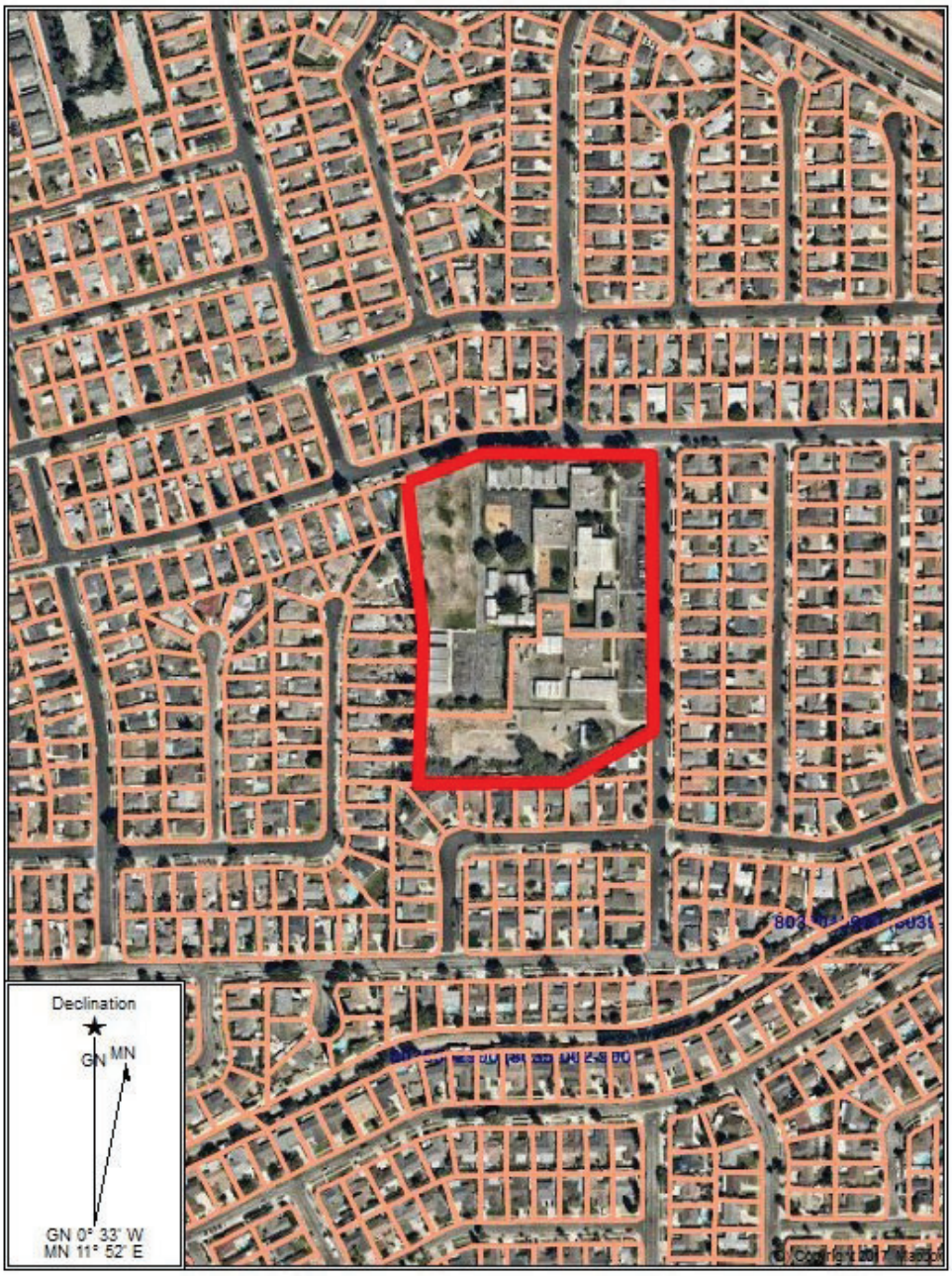


Figure 3: Aerial View Carden WhittierSchool campus, northern portion of original Lowell School campus



SCALE 1:2000

0 100 200 300

Feet

Figure 4: Site Plan
Carden Whittier School campus delineated from adjoining Lowell Joint School District property



Figure 4: Front entrance to Carden School campus. View looking southwest.

History of the Carden School Campus

The Lowell Joint School District (District) is located in the southeastern portion of Los Angeles County and the northwestern portion of Orange County, with their headquarters at 11019 Valley Home Drive, Whittier. It serves families from the communities of La Habra, La Habra Heights, and Whittier. The District provides the educational needs of students from kindergarten through eighth grade, at five K-6 elementary schools and one intermediate school.[4] The District serves as a feeder district for the Fullerton Joint Union High School. The District was established in the 1890s, after the Lowell School District found itself within the boundaries of Los Angeles County, and newly established Orange County.

After the end of World War II, there were two events that resulted in a population boom in Southern California. Across the United States, the end of the war – combined with the end of the Great Depression - became a trigger for an explosion of marriages and resulting babies. The number of children being entered in elementary schools in the early 1950s forced school districts to build new school campuses to provide adequate classroom space. In Southern California, the post-World War II baby boom was doubly increased by the number of families moving to the area from across the United States, in search of jobs associated with the aeronautics, aviation, and military industries. Huge tracts of houses, and accompanying schools, sprang up where orange groves had once stood by the thousands.

The District addressed the needs of its constituents by issuing bonds for the construction of new schools within the District's boundaries. The Grovedale School was the first of four schools to be built by the District in the early 1960s to provide educational facilities for the families residing in the tract homes that had seemingly sprung up overnight in the area.[5] The District retained the architect and engineering firm of Daniel, Mann, Johnson & Mendenhall (DMJM) to design the new Grovedale School, which would be located on an 8.68-acre site situated at the southwest corner of Richvale

[4] Lowell Joint School District; https://www.ljsd.org "District Overview".
[5] *Los Angeles Times*. "Contract Awarded for School at La Habra", May 28, 1961.

Drive and Grovedale Drive.[6] The new school buildings were erected beginning in 1961 by the William D. Greschner Construction Company of Santa Ana, who had been awarded a contract of $349,894 for the school campus.[7] The Grovedale School campus was designed to be constructed in phases with classroom and administration buildings completed first, to be later accompanied by two kindergarten buildings, and a multi-purpose building.[8] The construction of the Meadowgreen School, on a 12-acre site just south of the Grovedale School, followed in 1962.[9]

Meanwhile, Mae Carden, an elementary school teacher for over 40 years, from Glen Rock, New Jersey, founded a reading and teaching curriculum for children age 3 through 10th grades. Ms. Carden believed that teaching to read by using phonetics instead of learning individual words, and reading the written word without graphic clues, allowed a child to learn the language rather than memorize rules.[10] Miss Carden established the first Carden School in New York City in 1934. "In addition to using phonetics, Miss Carden credits the success of her method to her insistence on quality teachers".[11] One of Miss Carden's trainees was Lorraine Ramsey of Whittier. Lorraine Ramsey would establish, and serve as the director of, the Carden Whittier School in 1964, and later of the Carden School of La Habra.[12]

By 1972, there were over 150 schools across the United States using the Carden Method of teaching. Carden Schools had been established across Southern California in the communities of North Hollywood, Encino, Santa Monica, Calabasas, Sherman Oaks, Riverside, Corona del Mar, Tehachapi, Redondo Beach, and Fountain Valley, to name a few.

In 1975, due to falling enrollment figures, the District voted to close Grovedale Elementary School. Whittier Christian High School leased the campus from the District from 1976 to 1980. The Carden Whittier School, under the leadership of Lorraine Ramsey, established their permanent home on 5.75 acres of the old Grovedale School site in 1980 after the high school departed the site.[13] The District has kept ownership of the lower 2.93 acres of the original Grovedale School parcel.

Evaluation of Carden School

A site visit and pedestrian-level inspection of the Carden School campus was performed by Pamela Daly, M.S.H.P., on October 8, 2019. The Carden School campus is comprised of four permanent buildings: two classroom buildings, an administration building, and a multi-purpose building. There are also a number of portable classroom units located on the school grounds. The permanent buildings on the Carden School campus, and on the adjoining property of Lowell Joint School District, were all part of the original Grovedale Elementary School campus.

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[6] Ibid.
[7] Ibid.
[8] Ibid.
[9] *Los Angeles Times.* "Bids Called on Lowell School", January 21, 1962.
[10] Vils, Ursula. "A Reading System With 'No Failures'", March 24, 1972; *Los Angeles Times*.
[11] Ibid.
[12] *Los Angeles Times*. "Services Held for Whittier Educator Lorraine Ramsay", November 30, 1986.
[13] California Department of Education School Directory. "Carden Whittier Private School"; https://www.cde.ca.gov/schooldirectory/

The Carden School buildings were designed by DMJM in a variation of the International style of architecture known as Mid-Century Modern. The administration and classroom buildings are all one-story, rectangular-massed, with flat roofs and wide eaves, and cantilevered canopies supported on spider-leg steel support frames (Figure 5). The buildings are clad with stucco and have steel-framed, flush mounted windows. The classroom buildings measure 60' x 64', and the administration building measures 24' x 60'. The classroom and administration buildings share the design of a very wide roof fascia, and this wide fascia gives the buildings a visual impression of a large weight pressing down on the building (Figure 6). The Mid-Century Modern era of design is known for its clean, sophisticated, sleek, functional, stylized, and edgy aspects, yet those design attributes are missing from these early 1960s school buildings.

The multi-purpose building is differentiated with a low-pitch gable roof, eaves entrance, and an un-interrupted span of large, aluminum-framed windows on its front (south) elevation (Figure 7). The multi-purpose building measures approximately 76' x 80', with an attached wing at the northwest corner that measures approximately 24' x 32'. Extending from the front elevation of the building is a concrete paved courtyard that completely covers the expanse of the yard up to the administration building. While it may be practical, the uninterrupted swath of concrete presents a harsh and vapid entrance to the school property. A large playing field is located along the western boundary of the property, while smaller sections of grass and mature trees are situated amongst the buildings.

The campus was designed using a "cluster" plan. The cluster plan was to arrange individual buildings around a common-use outdoor area, with the buildings connected by a system of canopies covering the sidewalks between the buildings.



Figure 5: Classroom building; view looking northeast.



Figure 6: Classrooms 25 and 26, viewed from under the canopy spanning between buildings. View looking northeast.



Figure 7: Front elevation of Multi-purpose building; view looking northeast.

The Carden School campus has not been previously surveyed for the investigation and documentation of cultural resources. The structures and objects located within the Carden School campus have not been previously surveyed and evaluated by a qualified architectural historian for listing as a historic resource in the National Register, California Register, or County. Our survey and evaluation did not include the buildings situated on the District's property.

In order to identify and evaluate the structures and objects that are associated with the Carden School, a multi-step methodology was utilized. An inspection was made of the existing structures and associated features, combined with a review of accessible archival sources was performed to document existing conditions and assist in assessing and evaluating the property for significance. The Carden School had made the original set of drawings of the campus available for review. Photographs were taken of campus and its buildings, including photographs of architectural details or other points of interest, during the on-site survey. The photographs will be used to prepare the California Office of Historic Preservation Historical Resources Inventory Form (DPR Form series) to document the current built-environment of the property.

Under National Register, California Register, or County criteria relating to the Carden School's association with significant historical events that exemplifying broad patterns of our history, the Carden School does not appear to qualify as a significant historic resource. The Carden School property was created from the original District's Grovedale Elementary School campus, which was closed by the District in 1975. Grovedale Elementary School was one of hundreds that were constructed across Southern California and California to address the exploding school enrollments in the 1950s and 1960s. Archival research does not reveal that Grovedale Elementary School, Whittier Christian High School, or Carden Whittier School was the location of any significant historic events related to either public or private school education in California. There is no evidence that the collection of buildings within the project site is eligible for listing under Criterion A/1/1.

Under criteria relating to a property's direct association with persons of historic importance, the Carden School does not appear to qualify as a significant cultural resource. There is no evidence that the property was *directly* associated with persons (during their period of significance) important to the development of elementary school curriculum, or with persons important in Los Angeles County, California, or the United States. While Mae Carden was directly associated with the creation of the Carden Method of teaching, she had passed away in 1977, which was before the Carden Whittier School moved into the Grovedale School property. The subject property has been determined not eligible for listing in the National Register, California Register, or County under Criterion B/2/2.

Under National Register, California Register, or County criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the Carden School property is not significant. Founded in 1946, at the time that the architectural and engineer firm Daniel, Mann, Johnson & Mendenhall (DMJM) had prepared the design of the Grovedale School buildings in 1961, it was among the largest full service architecture and engineering firms in the United States. According to the Los Angeles Conservancy, DMJM had reached a level of notice in the years after

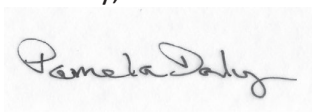
World War II from the work it did with projects for the U.S. Department of Defense, and from large corporate architecture projects they produced in the 1950s and 1960s.[14]

Unlike the work it performed for its larger clients, DMJM prepared for the District an uninspired – but functional - Mid-Century Modern style of school buildings, and a campus designed on the cluster plan of arranging buildings and landscape. For some reason, the multi-purpose building does not share the design of the classroom and administration buildings, making it appear as an uninspired afterthought. While the buildings that comprised the Carden School campus appear to have maintained a high level of their original architectural integrity, the buildings do not embody a high level of sophisticated design that raises the buildings above the mundane. The school property does not appear eligible for listing in the National Register, California Register, or as a County historic resource under Criterion C/3/3.

There does not appear to be evidence to believe that the Carden School property has the potential to yield important information regarding the history of Los Angeles County, California, or the nation pursuant to Criterion D/4/4.

In summation, Carden Whittier School property is not eligible for listing in the National Register, California Register, or as a Los Angeles County significant historic resource.

Sincerely,



Pamela Daly, M.S.H.P.
Principal

[14] Los Angeles Conservancy. "Daniel, Mann, Johnson & Mendenhall (DMJM)"; https://www.laconservancy.org/architects/dmjm

State of California — The Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI #
PRIMARY RECORD	Trinomial
	NRHP Status Code: 6Z
Other Listings	
Review Code	Reviewer Date

 ***Resource Name:** Carden Whittier School campus

P1. Other Identifier: Assessor Parcel Number 8039-014-027

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** La Habra **Date:** 1981 **T** ; **R** ; **¼ of** **¼ of Sec** ; S.B.**B.M.**

c. Address: 11537 Grovedale Drive City: Whittier Zip: 90604

d. UTM: Zone: 11; 408624 mE/ 3754506 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 247 feet

Located at the southwest corner of Richvale Drive and Grovedale Drive.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Carden School campus is comprised of four permanent buildings: two classroom buildings, an administration building, and a multi-purpose building. There are also a number of portable classroom units located on the school grounds. The permanent buildings on the Carden School campus, and on the adjoining property of Lowell Joint School District, were all part of the original Grovedale Elementary School campus.

The Carden School buildings were designed by DMJM in a variation of the International style of architecture known as Mid-Century Modern. The administration and classroom buildings are all one-story, rectangular-massed, with flat roofs and wide eaves, and cantilevered canopies supported on spider-leg steel support frames. The buildings are clad with stucco and have steel-framed, flush mounted windows. The classroom buildings measure 60' x 64', and the administration building measures 24' x 60'. The classroom and administration buildings share the design of a very wide roof fascia, and this wide fascia gives the buildings a visual impression of a large weight pressing down on the building. The Mid-Century Modern era of design is known for its clean, sophisticated, sleek, functional, stylized, and edgy aspects, yet those design attributes are missing from these early 1960s school buildings.

(See Continuation sheet for additional text.)

***P3b. Resource Attributes:** HP15 (Educational buildings).

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: Entrance to school. View looking northwest. October 8, 2019.

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both Constructed 1961 per Los Angeles Times.

***P7. Owner and Address:**
Carden Whittier School
11537 Grovedale Drive
Whittier, CA 90604

***P8. Recorded by:**
Pamela Daly, M.S.H.P.
Daly & Associates
2242 El Capitan Drive
Riverside, CA 92506

***P9. Date Recorded:**
November 4, 2019

***P10. Survey Type:** (Describe)
CEQA Phase 1

***P11. Report Citation:** None.

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**: 6Z

***Resource Name:** **Carden Whittier School campus**

B1. Historic Name: Grovedale Elementary School
B2. Common Name: Carden School
B3. Original Use: Public elementary school
B4. Present Use: Private elementary school

***B5. Architectural Style:** Mid-Century Modern

***B6. Construction History:** (Construction date, alterations, and date of alterations)
Classroom and administration buildings constructed in 1961-1962. The multi-purpose building was added between 1963 and 1972 (per historic aerial photographs.)

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** The Grovedale Elementary School campus was divided in 1980, and Carden School is situated on the northern portion of the original parcel.

B9a. Architect: Daniel, Mann, Johnson & Mendenhall (DMJM)
b. Builder: William D. Greschner Construction Co. of Santa Ana

***B10. Significance:** None **Theme:** Elementary school **Area:** Los Angeles County
Period of Significance: None **Property Type:** School **Applicable Criteria:** None

The Lowell Joint School District (District) is located in the southeastern portion of Los Angeles County and the northwestern portion of Orange County, with their headquarters at 11019 Valley Home Drive, Whittier. It serves families from the communities of La Habra, La Habra Heights, and Whittier. The District provides the educational needs of students from kindergarten through eighth grade, at five K-6 elementary schools and one intermediate school. The District serves as a feeder district for the Fullerton Joint Union High School. The District was established in the 1890s, after the Lowell School District found itself within the boundaries of Los Angeles County, and newly established Orange County.

After the end of World War II, there were two events that resulted in a population boom in Southern California. Across the United States, the end of the war – combined with the end of the Great Depression - became a trigger for an explosion of marriages and resulting babies. The number of children being entered in elementary schools in the early 1950s forced school districts to build new school campuses to provide adequate classroom space. In Southern California, the post-World War II baby boom was doubly increased by the number of families moving to the area from across the United States, in search of jobs associated with the aeronautics, aviation, and military industries. Huge tracts of houses, and accompanying schools, sprang up where orange groves had once stood by the thousands.

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(See Continuation Sheet for additional text.)

B11. Additional Resource Attributes: None.

***B12. References:** See Continuation Sheet.

B13. Remarks: None.

***B14. Evaluator:** Pamela Daly, M.S.H.P.

***Date of Evaluation:** November 4, 2019



(This space reserved for official comments.)

*Recorded by: Pamela Daly, M.S.H.P. *Date: November 4, 2019 ☒Continuation ☐ Update

P3. Description, continued:

The multi-purpose building is differentiated with a low-pitch gable roof, eaves entrance, and an un-interrupted span of large, aluminum-framed windows on its front (south) elevation. The multi-purpose building measures approximately 76' x 80', with an attached wing at the northwest corner that measures approximately 24' x 32'. Extending from the front elevation of the building is a concrete paved courtyard that completely covers the expanse of the yard up to the administration building. While it may be practical, the uninterrupted swath of concrete presents a harsh and vapid entrance to the school property. A large playing field is located along the western boundary of the property, while smaller sections of grass and mature trees are situated amongst the buildings.

The campus was designed using a "cluster" plan. The cluster plan was to arrange individual buildings around a common-use outdoor area, with the buildings connected by a system of canopies covering the sidewalks between the buildings.

B10. Statement of Significance, continued:

The new school buildings were erected beginning in 1961 by the William D. Greschner Construction Company of Santa Ana, who had been awarded a contract of $349,894 for the school campus. The Grovedale School campus was designed to be constructed in phases with classroom and administration buildings completed first, to be later accompanied by two kindergarten buildings, and a multi-purpose building. The construction of the Meadowgreen School, on a 12-acre site just south of the Grovedale School, followed in 1962.

Meanwhile, Mae Carden, an elementary school teacher for over 40 years, from Glen Rock, New Jersey, founded a reading and teaching curriculum for children age 3 through 10th grades. Ms. Carden believed that teaching to read by using phonetics instead of learning individual words, and reading the written word without graphic clues, allowed a child to learn the language rather than memorize rules. Miss Carden established the first Carden School in New York City in 1934. "In addition to using phonetics, Miss Carden credits the success of her method to her insistence on quality teachers". One of Miss Carden's trainees was Lorraine Ramsey of Whittier. Lorraine Ramsey would establish, and serve as the director of, the Carden Whittier School in 1964, and later of the Carden School of La Habra.

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Under criteria relating to a property's direct association with persons of historic importance, the Carden School does not appear to qualify as a significant cultural resource. There is no evidence that the property was *directly* associated with persons (during their period of significance) important to the development of elementary school curriculum, or with persons important in Los Angeles County, California, or the United States. While Mae Carden was directly associated with the creation of the Carden Method of teaching, she had passed away in 1977, which was before the Carden Whittier School moved into the Grovedale School property. The subject property has been determined not eligible for listing in the National Register, California Register, or County under Criterion B/2/2.

(See Continuation sheet for additional text.)

*Recorded by: Pamela Daly, M.S.H.P. *Date: November 4, 2019 ☒Continuation ☐ Update

B10. Statement of Significance, continued:

Under National Register, California Register, or County criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the Carden School property is not significant. Founded in 1946, at the time that the architectural and engineer firm Daniel, Mann, Johnson & Mendenhall (DMJM) had prepared the design of the Grovedale School buildings in 1961, it was among the largest full service architecture and engineering firms in the United States. According to the Los Angeles Conservancy, DMJM had reached a level of notice in the years after World War II from the work it did with projects for the U.S. Department of Defense, and from large corporate architecture projects they produced in the 1950s and 1960s.

Unlike the work it performed for its larger clients, DMJM prepared for the District an uninspired – but functional - Mid-Century Modern style of school buildings, and a campus designed on the cluster plan of arranging buildings and landscape. For some reason, the multi-purpose building does not share the design of the classroom and administration buildings, making it appear as an uninspired afterthought. While the buildings that comprised the Carden School campus appear to have maintained a high level of their original architectural integrity, the buildings do not embody a high level of sophisticated design that raises the buildings above the mundane. The school property does not appear eligible for listing in the National Register, California Register, or as a County historic resource under Criterion C/3/3.

There does not appear to be evidence to believe that the Carden School property has the potential to yield important information regarding the history of Los Angeles County, California, or the nation pursuant to Criterion D/4/4.

B12. References:

California Department of Education School Directory. "Carden Whittier Private School"; https://www.cde.ca.gov/schooldirectory/
Los Angeles Conservancy. "Daniel, Mann, Johnson & Mendenhall (DMJM)"; https://www.laconservancy.org/architects/dmjm
Los Angeles Times. "Contract Awarded for School at La Habra", May 28, 1961.
Los Angeles Times. "Services Held for Whittier Educator Lorraine Ramsay", November 30, 1986.
Los Angeles Times. "Bids Called on Lowell School", January 21, 1962.
Lowell Joint School District; https://www.ljsd.org "District Overview".
Vils, Ursula. "A Reading System With 'No Failures'", March 24, 1972; *Los Angeles Times*.



Classroom building. View looking northeast.

*Recorded by: Pamela Daly, M.S.H.P. *Date: November 4, 2019 ☒Continuation ☐ Update



Front (south) elevation of multi-purpose building. View looking northeast.



View of classroom building and connecting canopy system. View looking southwest.

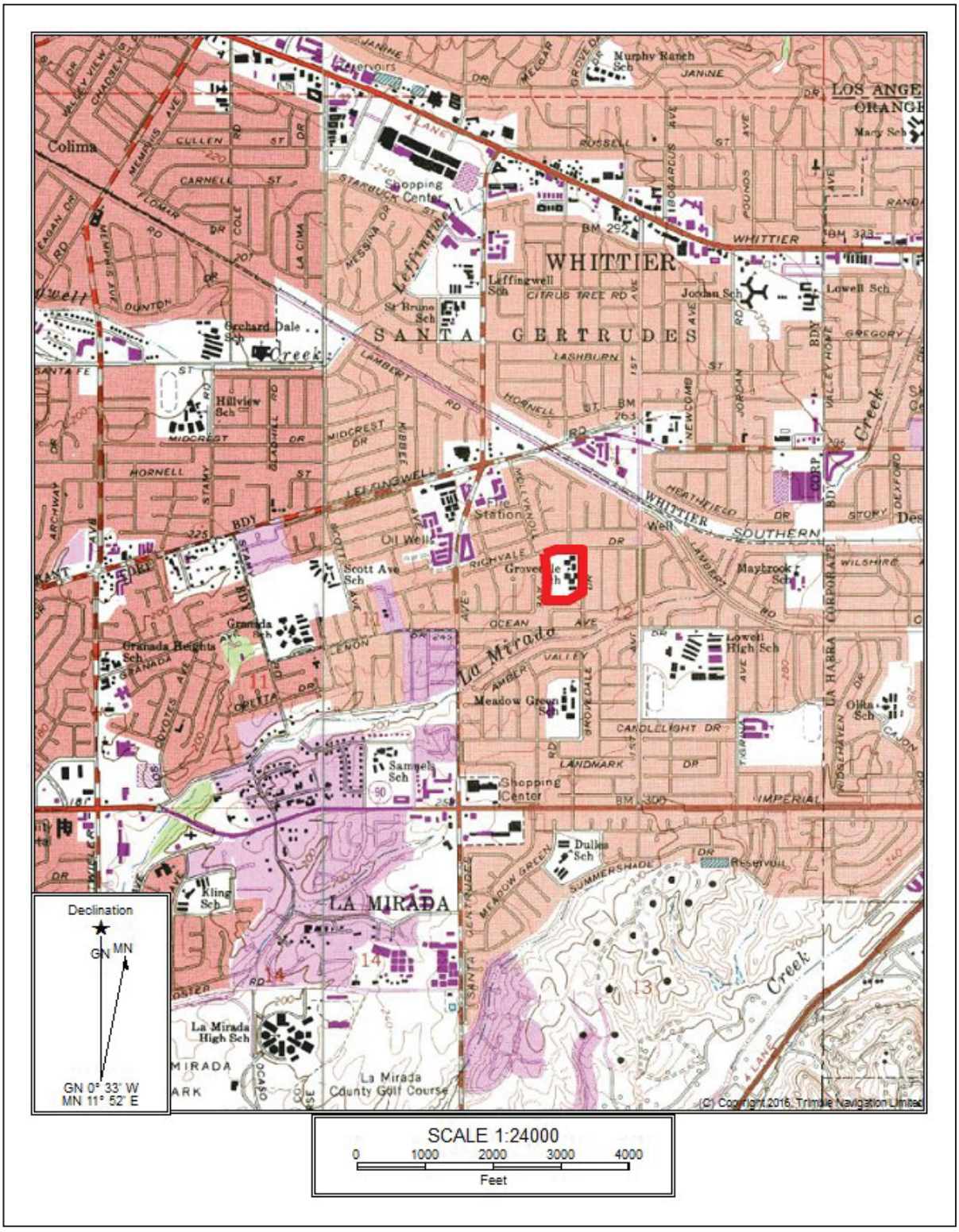
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 6 **of** 6 ***Resource Name:** Carden Whittier School campus

***Map Name:** La Habra ***Scale:** 1:24,000 ***Date of Map:** 1981



DPR 523J (1/95) *Required information

APPENDIX E: GEOTECHNICAL DUE DILIGENCE AND PRELIMINARY INFILTRATION STUDY

GeoTek, Inc.
1548 North Maple Street, Corona, California 92880
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

April 20, 2018
Project No. 1875-CR

Century Communities
1343 East Gladstone Street, Suite 300
Glendora, California 91740

Attention: Mr. Frank Sotelo

Subject: Geotechnical Due Diligence and Preliminary Infiltration Study
Assessor's Parcel Number 8039-014-027
11537 Grovedale Drive
Whittier, Los Angeles County, California

References: See Page 7

Dear Mr. Sotelo:

In accordance with your request, GeoTek, Inc. (GeoTek) has prepared this geotechnical due diligence and preliminary infiltration report for the subject parcel.

Our geotechnical due diligence and preliminary infiltration report is based on a site reconnaissance; excavation of three exploratory hollow-stem auger borings on-site; excavation of one shallow infiltration test boring; collection of soil samples of the on-site materials; laboratory testing of selected soil samples collected from the site; percolation testing within the infiltration test boring; review of existing readily available geologic data for the site; and our experience in the vicinity and with this type of project.

This report is not intended to be used for any design or permitting process.

Site Description

The subject site is comprised of one parcel of land (Los Angeles County Assessor's Parcel Number [APN] 8039-014-027) and encompasses a total of approximately 5.75 acres. The site is located at and addressed as 11537 Grovedale Drive in the city of Whittier, Los Angeles County, California (see Site Location Map, Figure 1).

The Site is currently occupied by Carden School of Whittier. The site is bounded by Richvale Drive, followed by residential development, to the north; Grovedale Drive, followed by residential development, to the east; Carden School of Whittier to the south; and residential development to the west.

The site and site area can be considered as having relatively flat terrain. Based on the USGS topographic map for the area and other documents reviewed for this report, the elevation of the subject site ranges from approximately 250 to 258 feet above mean sea level. Natural drainage at the site is interpreted to be dominantly directed toward the southwest, conforming to the natural topography in the area.

No active or potentially active fault is known to exist at the site, nor is the site situated within an "Alquist-Priolo" Earthquake Fault Zone. The site is not located within an area that has not been mapped by the California Geological Survey (CGS) for liquefaction.

Proposed Development

Based on information provided by Century Communities, proposed development for the subject parcel includes earthwork and construction necessary for 30 single-family residential lots and associated roadways. Other related improvements (flatwork, screen walls, underground utilities, etc.) are also anticipated. It is also anticipated that minimal cuts and fills will be required to achieve finished grade elevations on the site.

Field Exploration

Our geotechnical field exploration was conducted on April 6, 2018. A geologist from GeoTek logged three exploratory hollow-stem auger borings excavated by a track-mounted drilling rig to depths ranging from 18.5 to 21.5 feet below the existing ground surface. A Boring Location Map is provided as Figure 2. Logs of the exploratory borings are included in Appendix A. Samples of on-site soils encountered in the excavations were returned to the laboratory for testing and evaluation.

Additionally, one infiltration test boring was excavated to a depth of approximately five feet (see Figure 2).

Groundwater was not encountered in any of the test borings excavated on the site to a maximum depth of 21.5 feet. According to the State Water Resources Control Board GeoTracker database (http://geotracker.waterboards.ca.gov/) groundwater has been reported at a depth of 17 to 32 feet below ground surface (bgs), based on a well approximately 2,254 feet northeast of the proposed area of improvements. Based on review of the Seismic Hazard

Zone Report for the La Habra 7.5-minute Quadrangle (Division of Mines and Geology, 1997), historic groundwater is approximately 20 to 35 feet below the existing ground surface. Based on the results of our field exploration, review of site area geomorphology and geology, groundwater is not anticipated to adversely affect the proposed improvements.

Laboratory Testing

Laboratory testing was performed on selected bulk and relatively undisturbed soil samples collected during our field exploration. The purpose of the laboratory testing was to confirm the field classification of the soils encountered and to evaluate their physical properties for use in the engineering design and analysis.

Included in our laboratory testing were moisture-density determinations; gradation analysis; consolidation tests were performed on representative "undisturbed" samples to assess the settlement and hydro-collapse potential of the site soils; expansion index testing was performed on a selected sample to evaluate the expansion potential of the on-site soils; Atterberg Limits; and chemical testing comprised of pH, soluble sulfate, chloride and resistivity testing was also conducted on a selected sample. The moisture-density, gradation data and Atterberg Limits are presented on the exploration logs in Appendix A. The expansion index, consolidation and chemical test data are presented in Appendix B.

Infiltration Testing

Percolation testing was performed within the infiltration boring within the lower 20 inches by a representative from our firm in general conformance with the referenced document (County of Los Angeles) and converted to an infiltration rate (Porchet Method).

The infiltration rate is presented in the follow table after the rates had stabilized.

Test No.	Infiltration Rate (inches per hour)
I-1	0.02

Copies of the percolation data sheet and infiltration conversion sheet (Porchet Method) are included in Appendix C.

We recommend that a safety factor be applied to account for both site variability and silting. Over the lifetime of the storm water disposal areas, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near-surface soil conditions.

Findings and Preliminary Recommendations

Based on our field exploration and observations, the site is generally underlain by clayey silt, silty clay and clay.

Existing fill was encountered within all of our exploratory borings to a maximum depth of approximately 5½ feet below the existing ground surface at the locations of our borings. Native materials were encountered below the in our exploratory borings (see exploratory logs, Appendix A). All fill soils should be removed prior to placement of engineered fill.

Expansion Index testing was performed on soils obtained during our subsurface exploration. Soils tested were classified as having a "medium" ($51 \leq EI \leq 90$) expansion potential when tested in general accordance with ASTM D 4829. Test results are provided in Appendix B.

The sulfate content was determined in the laboratory by our subconsultant Project X Corrosion Engineering for two on-site soil samples. The results indicate that the water-soluble sulfate range is less than 0.1 percent by weight, which is considered "not applicable" (i.e. negligible) as per Table 4.2.1 of ACI 318. Based upon the current test results, no special concrete mix design appears to be required for sulfate attack resistance. Further testing should be carried out during the geotechnical evaluation and/or post grading for confirmation. Test results are provided in Appendix B.

The soil resistivity at this site was tested in the laboratory by our subconsultant Project X Corrosion Engineering on two samples collected during the field investigation (see Appendix B). The results of the testing (804 and 871 ohm-cm) indicate that the onsite soils are considered "corrosive" to buried metal in accordance with current standards commonly used by corrosion engineers. GeoTek does not practice in the field of corrosion engineering. We recommend that a qualified corrosion engineer be consulted to determine the appropriate corrosion protection for this site.

All existing fill should be removed beneath the planned buildings. Additionally, a minimum of three feet of engineered fill should be provided under the proposed foundations. The lateral extent of removals should be at least five feet beyond the perimeter foundations or a distance equal to the depth of overexcavation below the bottom of the structural elements, whichever is greater. The exposed subgrade after removals should be scarified to a depth of 12 inches, moistened to slightly over the optimum moisture content and then compacted to at least 90 percent of the laboratory standard (ASTM D 1557).

For planning purposes, a shrinkage factor of 5 to 10 percent may be considered for the materials that will be removed and recompacted. Subsidence of up to 0.1 feet may occur due

to the underlying materials within the vicinity of the proposed construction. Several factors will impact earthwork balancing on the site, including shrinkage, subsidence, bulking, trench spoils from utilities and footing excavations, as well as the accuracy of topography. Shrinkage is primarily dependent upon the degree of compactive effort achieved during construction. Site balance areas should be available in order to adjust project grades, depending on actual field conditions at the conclusion of site earthwork construction.

LIMITATIONS

Our findings are based on site conditions observed and the stated sources. GeoTek has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering and science professions currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report.

Respectfully submitted,
GeoTek, Inc.





Edward H. LaMont
CEG 1892, Exp. 07/31/18
Principal Geologist

Robert R. Russell
GE 2042, Exp. 12/31/18
Senior Project Engineer

Anna M. Scott
Project Geologist

Enclosures: Figure 1 – Site Location Map
Figure 2 – Boring Location Map
Appendix A – Logs of Exploratory Borings
Appendix B – Laboratory Test Results
Appendix C – Infiltration Test Data

Distribution: (1) Addressee via email (one PDF file)

G:\Projects\1851 to 1900\1875CR Century Communities 11537 Grovedale Drive Whittier\Due Diligence\1875CR Geotechnical Due Diligence and Infiltration Study Whittier.doc

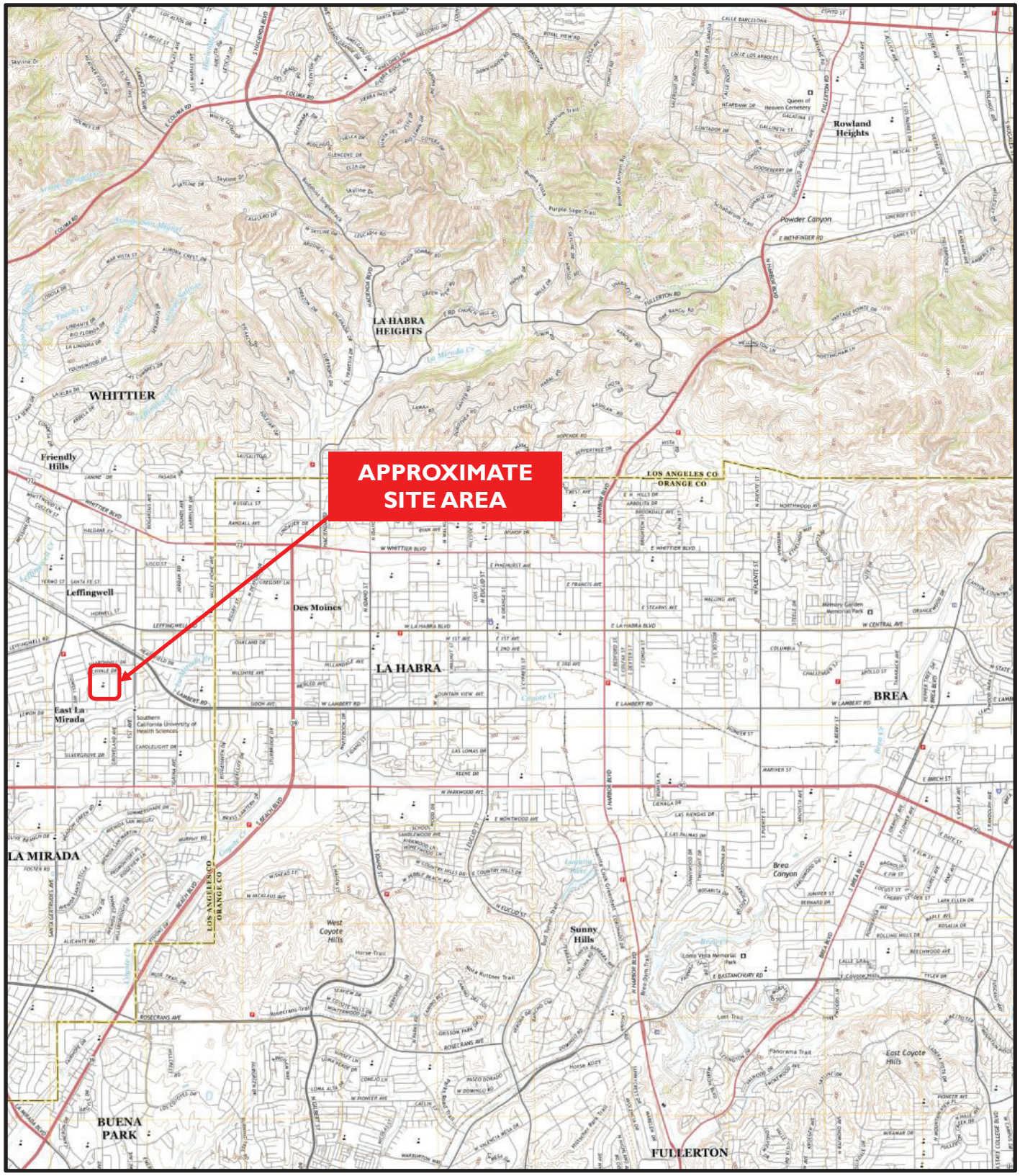
REFERENCES

County of Los Angeles Department of Public Works, Geotechnical and Materials Engineering Division, Guidelines for Design, Investigation, and Reporting, Low Impact Development Stormwater Infiltration, GS200.1, dated December 31, 2014.

Dibblee, T.W. and Ehrenspeck, H.E., 2001, "Geologic Map of the Whittier and La Habra Quadrangles (western Puente Hills), Los Angeles and Orange Counties, California," Dibblee Geological Foundation, Dibblee Foundation Map DF-74, scale 1:24,000.

Division of Mines and Geology, 1997, "Seismic Hazard Zone Report for the La Habra 7.5-minute Quadrangle, Los Angeles and Orange Counties, California," Seismic Hazard Zone Report 09.

National Association of Corrosion Engineers, 1984, "Corrosion Basics: An Introduction."



Century Communities
APN 8039-014-027
11537 Grovedale Drive
Whittier, Los Angeles County, California

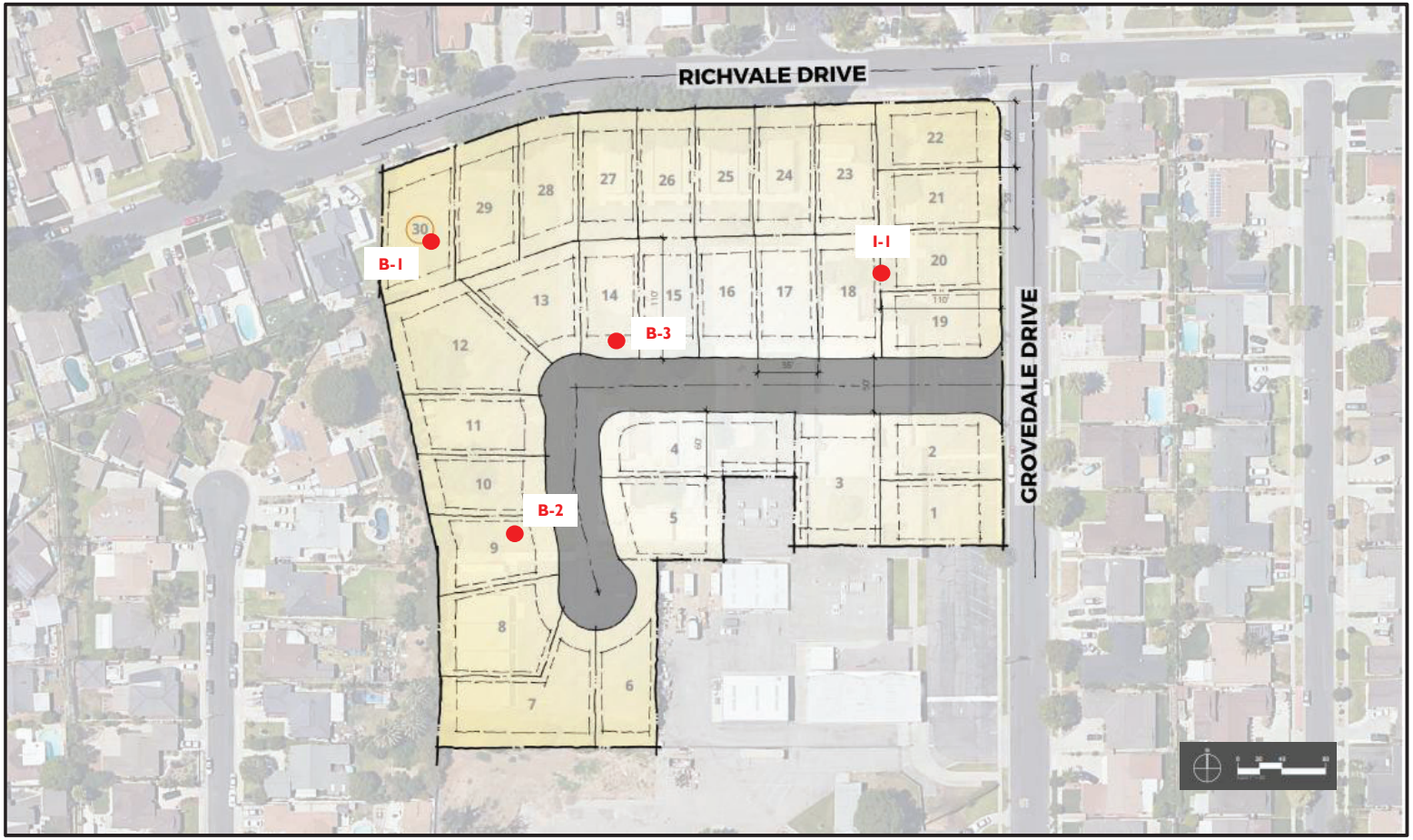
Project No. 1875-CR

NORTH

Figure 1

Site Location Map

GEOTEK



LEGEND

B-3 ● **Approximate Location of Exploratory Boring**

I-1 ● **Approximate Location of Infiltration Boring**

Century Communities
APN 8039-014-027
11537 Grovedale Drive
Whittier, Los Angeles County, California

GeoTek Project No. 1875-CR

GEOTEK

Figure 2

Boring Location Map

APPENDIX A

LOGS OF EXPLORATORY BORINGS

APN 8039-014-027

Whittier, Los Angeles County, California

Project No. 1875-CR

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Modified Split-Barrel Sampler (Ring)

The ring sampler is driven into the ground in accordance with ASTM Test Method D 3550. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

Bulk Samples (Small)

These are plastic bag samples which are normally airtight and contain less than 5 pounds in weight of earth materials collected from the field by means of hand digging or exploratory cuttings. These samples are primarily used for determining natural moisture content and classification indices.

B – BORING LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the logs of borings:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C: Contact line	
……..	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of the boring

(Additional denotations and symbols are provided on the log of borings)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Century Communities	**DRILLER:**	2R Drilling	**LOGGED BY:**	DRW
PROJECT NAME	APN 8039-014-027	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Jerry
PROJECT NO.:	1875-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	4/6/2018

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Artificial Fill:			
		24 38 33		CL	Silty CLAY, olive brown, slightly moist, very stiff, trace black clayey mottles, trace rootlets	11.7	118.8	EI, SR EI = 80 AL LL=49; PL=20; PI=29
5		16						
		26 26		CL	**Alluvium:** Silty CLAY, black, moist, very stiff, trace fine to coarse grained sand, trace caliche	9.7	123.4	
10		31 54/6"			Silty CLAY, light brown, slightly moist, hard, abundant caliche	12.1	115.3	
15		18 51/6"			Same as above			
20		27 28 34		ML	F sandy SILT, light brown, moist, very stiff, trace caliche, few yellow clayey mottles			
					BORING TERMINATED AT 21.5 FEET No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Century Communities	**DRILLER:**	2R Drilling	**LOGGED BY:**	DRW
PROJECT NAME	APN 8039-014-027	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Jerry
PROJECT NO.:	1875-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	4/6/2018

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-2 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Artificial Fill:			
		14 21 28		CL	Silty CLAY, olive brown, moist, very stiff, trace caliche, trace gravel, trace rootlets	13.7	121.5	HC
5					**Alluvium:**			
				CL	CLAY, dark brown to black, very moist, trace rootlets			
		10 11 14			Silty CLAY, brown, very moist, stiff	15.2	114.9	
10								
		8 14 14		ML	Clayey SILT, olive brown, moist, stiff, trace fine to coarse grained sand, some caliche	25.2	101.3	
15								
		11 15 17			F sandy SILT with CLAY, light brown, moist, stiff, trace caliche			
					BORING TERMINATED AT 18.5 FEET			
20					No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Century Communities	**DRILLER:**	2R Drilling	**LOGGED BY:**	DRW
PROJECT NAME	APN 8039-014-027	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Jerry
PROJECT NO.:	1875-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	4/6/2018

BORING NO.: B-3

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				CL	**Artificial Fill:** Silty CLAY, brown to dark brown, very moist, trace gravel and rootlets			
5		4 7 8		CL	**Alluvium:** Silty CLAY, dark brown to black, very moist, stiff, trace caliche	19.9	108.9	HC
10		6 9 11		ML	Clayey SILT, olive brown, very moist, stiff, trace fine to coarse grained sand, trace caliche	26.8	98.1	
15		6 9 12		CL	Silty CLAY, grayish black, very moist, stiff, trace fine grained sand pockets	22.6	105.0	
		7 10 11			Same as above, trace rootlets, slight organic smell			
20					**BORING TERMINATED AT 19.5 FEET** No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Century Communities	**DRILLER:**	2R Drilling	**LOGGED BY:**	DRW
PROJECT NAME	APN 8039-014-027	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Jerry
PROJECT NO.:	1875-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	4/6/2018

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: I-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				CL	**Artificial Fill:** Silty CLAY, brown to dark brown, very moist, some roots			
				CL	**Alluvium:** Silty CLAY, dark brown to black, very moist, stiff, trace caliche			SA % Passing #200 = 66
5					**BORING TERMINATED AT 5 FEET** No groundwater encountered			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

LABORATORY TESTING RESULTS

APN 8039-014-027

Whittier, Los Angeles County, California

Project No. 1875-CR

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification

Soils were classified visually in general accordance to the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications are shown on the log of borings in Appendix A.

Consolidation

Consolidation testing was performed on two selected samples of the site soils according to ASTM Test Method D 2435. The results of these tests are presented graphically within Appendix B.

Expansion Index

Expansion Index testing was performed on one soil sample. Testing was performed in general accordance with ASTM Test Method D 4829. The results of the testing are provided below.

Boring No.	Depth (ft.)	Description	Expansion Index	Classification
B-1	1-5	Silty Clay	80	Medium

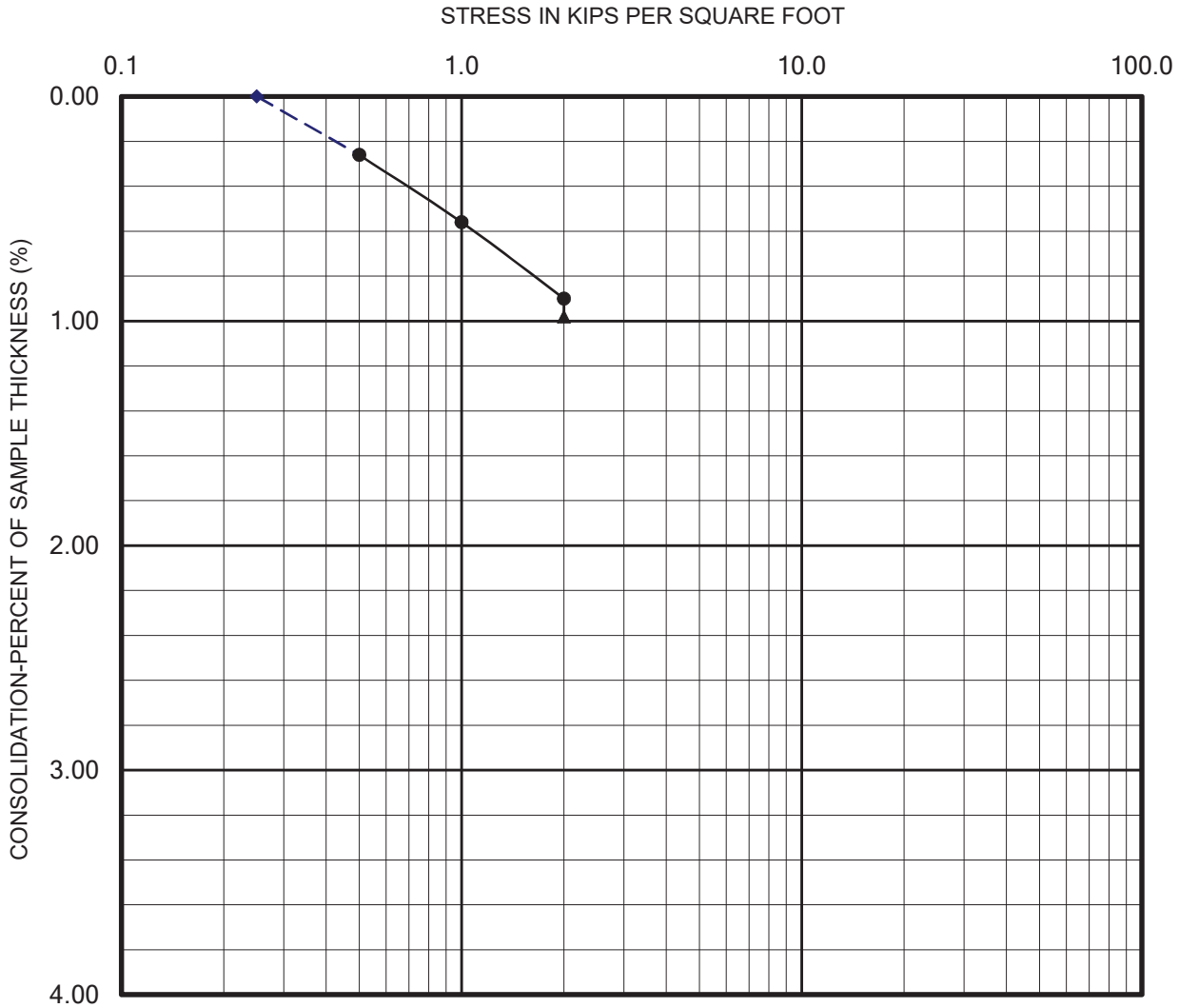
In Situ Moisture Content and Unit Weight

The field moisture content was measured in the laboratory on selected samples collected during the field investigation. The field moisture content is determined as a percentage of the dry unit weight. The dry density was measured in the laboratory on selected ring samples. The results are shown on the logs of exploratory borings in Appendix A.

Sulfate Content, Resistivity and Chloride Content

Testing to determine the water-soluble sulfate content was performed by others in general accordance with ASTM D516. Resistivity testing was completed by others in general accordance with ASTM G187. Testing to determine the chloride content was performed by others in general accordance with ASTM D 512B. The results of the testing are provided below.

Boring No.	Depth (ft.)	pH ASTM G51	Chloride ASTM D 512B (mg/kg)	Sulfate ASTM D516 (% by weight)	Resistivity ASTM G187 (ohm-cm)
B-1	1-5	8.36	24	0.0009	804
I-1	3-5	8.23	33	0.0012	871



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

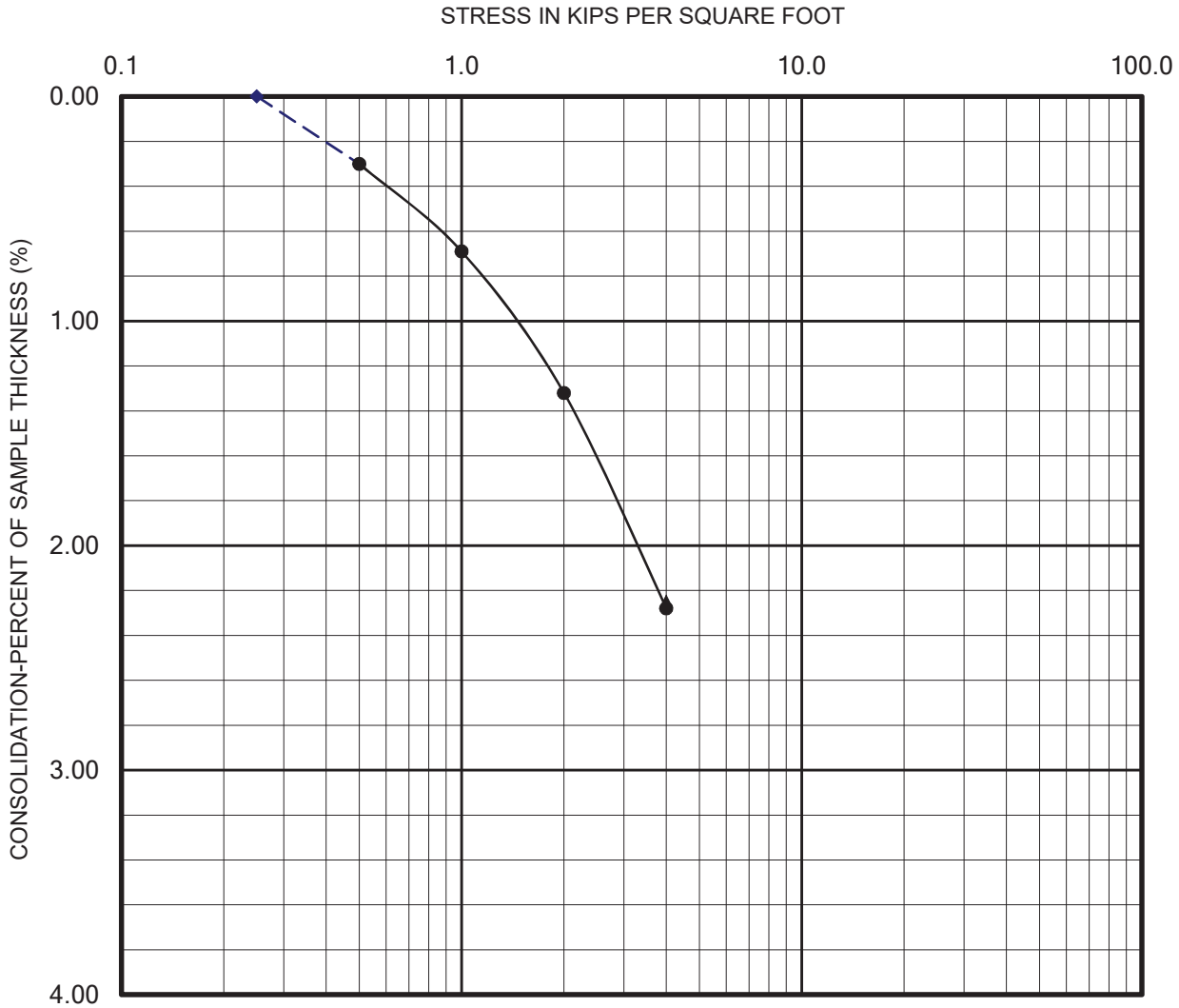
GEOTEK

CHECKED BY: RRR	Lab: DI
PROJECT NO.: 1875-CR	Date:4/6/2018

CONSOLIDATION REPORT

Sample: B-2 @ 2'

11537 Grovedale Drive
Whittier, California



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

GEOTEK

CHECKED BY: RRR	Lab: DI
PROJECT NO.: 1875-CR	Date: 4/6/2018

CONSOLIDATION REPORT

Sample: B-3 @ 2'

11537 Grovedale Drive
Whittier, California

APPENDIX C

INFILTRATION TEST DATA

APN 8039-014-027

Whittier, Los Angeles County, California

Project No. 1875-CR

GEOTEK

PERCOLATION DATA SHEET

Project: 11537 GROVEDALE DRIVE WHITTIER, Job No.: _____.

Test Hole No.: I-1 Tested By: DVG, Date: 4/7/2018.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PREWATER 5 GAL
	612		60	20				
	637	25			19 7/8	1/8		1ST 25 MIN.
	639		60	20				
	704	25			19 7/8	1/8		2ND 25 MIN.
	706		60	20				
	736	30			19 7/8	1/8		1ST 30 MIN.
	738		60	20				
	808	30			19 7/8	1/8		2ND 30 MIN.
	810		60	20				
	840	30			19 7/8	1/8		3RD 30 MIN.
	842		60	20				
	912	30			19 7/8	1/8		4TH 30 MIN.
	914		60	20				
	944	30			19 7/8	1/8		5TH 30 MIN.
	946		60	20				
	1016	30			19 7/8	1/8		6TH 30 MIN.
	1018		60	20				
	1048	30			19 7/8	1/8		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 11537 GROVEDALE DRIVE WHITTIER, Job No.: _____.

Test Hole No.: I-1 Tested By: DVG, Date: 4/7/2018.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	1050		60	20				
	1120	30			19 7/8	1/8		8TH 30 MIN.
	1122		60	20				
	1152	30			19 7/8	1/8		9TH 30 MIN.
	1154		60	20				
	1224	30			19 7/8	1/8		10TH 30 MIN.
	1226		60	20				
	1256	30			19 7/8	1/8		11TH 30 MIN.
	1258		60	20				
	128	30			19 7/8	1/8		12TH 30 MIN.

Client:	**Century Communities**
Project:	**APN 8039-014-027**
Project No:	**1875-CR**
Date:	**4/7/2018**

Boring No. **I-1**

Percolation Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	40.125
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\,(60r)}{\Delta t\,(r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	19.875
$\Delta H = \Delta D = H_O - H_F$ =	0.125
$H_{avg} = (H_O+H_F)/2$ =	19.9375

I_t = 0.02 **Inches per Hour**

GEOTEK

APPENDIX F: PHASE I ENVIRONMENTAL SITE ASSESSMENT

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
11537 Grovedale Drive
Whittier, California 90604
ASSESSOR PARCEL NUMBER 8039-014-027

Prepared For:

BMCH California, LLC
1343 E. Gladstone Street, Suite 300
Glendora, California 91740

Project No. 11974.001

April 24, 2018

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

April 24, 2018

Project No. 11974.001

BMCH California, LLC
1343 E. Gladstone Street, Suite 300
Glendora, California 91740

Attention: Mr. Frank Sotelo

Subject: **Phase I Environmental Site Assessment**
11537 Grovedale Drive
Whittier, Los Angeles, California 90604
APN(s): 8039-014-027

Leighton and Associates, Inc. (Leighton) is pleased to present this Phase I Environmental Site Assessment Report for the property located at 11537 Grovedale Drive, in the City of Whittier, Los Angeles County, California (Site). Leighton declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312, and the ASTM International (ASTM) Standard E1527-13. Leighton has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. Leighton has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

If you have questions regarding this report, please contact us. We appreciate the opportunity to be of service.

Respectfully submitted,

Leighton and Associates



Brian Pierce
Project Geologist

Project Summary

Report Section		No Further Action	REC	CREC	HREC	Opinion
3.0	USER PROVIDED INFORMATION	✔				No issues of environmental concern were identified in the user provided information.
4.2	Physical Settings Source(s)		✔			Phillips Petroleum Well Number 1 is depicted in the northeast portion of the Site on the DOGGR website. Phillips Petroleum Well Number 1 was a producing oil well that was drilled in 1953 to a total depth of 8,760 feet. The oil well was abandoned in 1956. Well records indicate that the well was backfilled with cement and sand, and the final concrete plug was installed from a depth of 14 feet bgs to 4 feet bgs, and a steel plate was welded onto the top of the well casing. Based on Leighton's review of the 1954 aerial photograph, Phillips Petroleum Well Number 1 was present on-site from 1953-1956 beneath the existing school building in the eastern central portion of the Site. The presence of a producing oil well is a REC for the Site.
4.4	Historical Use Information on the Property		✔			The presence of an oil well on-site is a REC for the Site. Based on the age of the structures, there is a potential for lead and termiticides to be present in shallow soils surrounding the existing structures.

Report Section		No Further Action	REC	CREC	HREC	Opinion
4.5	Historical Use Information on Adjacent Property	✔				No issues of environmental concern were identified in the historical use information for the adjacent properties.
5.0	SITE RECONNAISSANCE	✔				RECs were not observed at the Site.
6.0	INTERVIEWS	✔				No environmental concerns were identified in the interviews conducted by Leighton.

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1.0 INTRODUCTION

1.1 Authorization

Leighton and Associates, Inc. (Leighton) performed a Phase I Environmental Site Assessment (ESA) for the property located at 11537 Grovedale Drive in the City of Whittier, Los Angeles County, California (Site or subject site – Figure 1) in accordance with BMCH California, LLC's authorization.

1.2 Purpose

The purpose of the Phase I ESA was to identify, to the extent feasible and pursuant to the processes prescribed in ASTM International (ASTM) E1527-13, recognized environmental conditions (RECs), historical RECs (HRECs), or controlled RECs (CRECs) in connection with the Site.

RECs are defined, according to ASTM E1527-13 as: *the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment*. *De minimis* conditions are not RECs (ASTM 1527-13, 2013). Per ASTM 1527-13, a *de minimis* condition is defined as "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

HRECs are defined, according to ASTM E1527-13 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 meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls*.

CRECs are defined, according to ASTM E1527-13 as: *a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the*

implementation of required controls.

1.3 Scope of Work

The scope of work was performed in accordance with Leighton's proposal and included the following tasks:

- A reconnaissance-level visit of the Site for evidence of the release(s) of hazardous substances and/or petroleum products and to assess the potential for onsite releases of hazardous substances and petroleum products;
- Records review (including review of previous environmental reports, selected governmental databases, and historical review);
- Interviews; and
- Preparation of a report presenting our findings.

1.4 Significant Assumptions

Leighton assumes that the purpose of this Phase I ESA is to provide appropriate inquiry into the previous ownership and use of the Site so that the Client may qualify for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) landowner liability protections as defined in CERCLA, 42USC §9601(35)(B). Leighton also assumes that the information provided by the Client and its agents, regulatory database provider, and regulatory agencies is true and reliable.

1.5 Limitations and Exceptions

Leighton performed the Phase I ESA of the Site in conformance with the scope and limitations of ASTM Practice E1527-13 and AAI Final Rule 40 CFR Part 312. Other than the non-scope items shown in Section 1.6 that were not applicable, there were no exceptions to, or deletions from, this practice.

Property-specific activities performed by Leighton and information collected regarding these activities are summarized in the following sections. The findings of this Phase I ESA are presented in Section 7.0. Opinions and

conclusions drawn by Leighton, based on the information collected as part of the Phase I ESA, are presented in Sections 8.0 and 9.0, respectively. References are included as Appendix A. Site Photographs are presented in Appendix B. Client Supplied documentation is included as Appendix C. Research of environmental liens is documented in Appendix D. The Database Report and Property Settings Report are included as Appendix E. Regulatory records requests and responses are included as Appendix F. Historical documentation is provided in Appendix G. The GBA Geoenvironmental Report is provided in Appendix H.

This Phase I ESA was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The observations and conclusions presented in this report are professional opinions based on the scope of activities, work schedule, and information obtained through the Phase I ESA described herein. Opinions presented herein apply to property conditions existing at the time of our study and cannot necessarily be taken to apply to property conditions or changes that we are not aware of or have not had the opportunity to evaluate. It must be recognized that conclusions drawn from these data are limited to the amount, type, distribution, and integrity of the information collected at the time of the investigation, and the methods utilized to collect and evaluate the data. Although Leighton has taken steps to obtain true copies of available information, we make no representation or warranty with respect to the accuracy or completeness of the information provided by others.

This practice does not address whether requirements in addition to all appropriate inquiry have been met in order to qualify for the landowner liability protections including the continuing obligation not to impede the integrity and effectiveness of activity and use limitations, or the duty to take reasonable steps to prevent releases, or the duty to comply with legally required release reporting obligations. Users should also be aware that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the Site that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for

non-compliance.

1.6 Special Terms and Conditions

The scope of work for this Phase I ESA did not include non-scope considerations, such as, but not limited to, those listed in Section 13 of ASTM E1527-13. This scope of work did not include items such as testing of electrical equipment for the presence of polychlorinated biphenyls (PCBs) or collection of other environmental samples, such as soil, soil vapor, water, suspected asbestos-containing building materials, or lead-based paint; assessment of natural hazards such as radon gas, methane gas, or mold; assessment of the potential presence of radionuclides, biological agents, or lead in drinking water; assessment of indoor air quality, or assessment of nonchemical hazards such as the potential for damage from earthquakes or floods, or the presence of endangered species or wildlife habitats. This Phase I ESA also did not include an extensive assessment of the environmental compliance status of the Site or of businesses operating at the Site, or a health-based risk assessment.

1.7 User Reliance

This report has been completed for the exclusive use of BMCH California, LLC and its lenders and equity providers. Use of this report by any other party shall be for informational purposes only at such party's sole risk. If other persons or entities wish to rely upon this report, Leighton will require that such parties agree in writing to Leighton's contract terms.

1.8 Important Information about Geoenvironmental Reports

BMCH California, LLC is referred to Appendix H regarding important information provided by the Geoprofessional Business Association (GBA) on geoenvironmental studies and reports.

2.0 SITE DESCRIPTION

2.1 General Description

The Site is developed as the Carden School of Whittier at the address of 11537 Grovedale Drive, Whittier, California(Figure 1 -Site Location Map). The Site is an irregularly shaped parcel, 5.77 acres in size located southeast of the intersection of Grovedale Drive and Richdale Drive. The County of Los Angeles Assessor's office designates portions of the Site as Assessor's Parcel Number (APN) 8039-014-027. The surrounding vicinity is primarily residential.

Property Description Summary	
Property Address	11537 Grovedale Drive Whittier, California, 90604
Historical Address(es)	None found.
Legal Description	Lot 149 of Tract No. 24958, in the County of Los Angeles, State of California as per map recorded in Book 653 Pages 87 to 92 inclusive of maps, in the Office of the County Recorder of said County. See Appendix D for a complete Legal Description.
Owner Name	Seramzu, LLC c/o Carden Whittier School, Inc.
Property Parcel Numbers	8039-014-027
Building Area	16,471
Building Construction	1957
Units	N/A; school
Year Built	1957
Number of Floors	1
Parcel(s) Area	5.77 acres
Current Tenant(s)	Carden School of Whittier

Property Description Summary	
Suspected Release	Organochlorine pesticides (OCPs) from historical agricultural use, termiticides and/or lead from historical application around structures, and potential petroleum hydrocarbon impacts to soil and soil gas from a historical oil well.
Environmental Liens	No environmental liens were reported by the Property owner or the EDR Environmental Lien and AUL Search (Appendix D).
AULs	No Activity and Use Limitations were by the Property owner or the EDR Environmental Lien and AUL Search (Appendix D).
Description of Structures, Roads and Other Site Improvements	
Number of Buildings	4 single-story structures and 14 single story modular structures.
Potable Water Supply	City of Whittier
Septic/Sewage	City of Whittier
Waste Disposal	N/A; vacant
Other Public Utilities	Southern California Edison (SCE) provide gas and electric services to the Site.
Road/alleys/parking	A parking lot is present in the eastern portion of the property. Access to the Site is from Grovedale Drive. There is also a maintenance driveway along the western portion of the property with access provided from Richvale Drive.

2.2 Current Uses of Adjoining Properties

Leighton observed the following adjoining property uses.

Direction from Site	Current Use
North	Richvale Drive, followed by Residential
East	Grovedale Drive, followed by Residential

Direction from Site	Current Use
South	Commercial (school maintenance yard)
West	Residential

3.0 USER PROVIDED INFORMATION

User Provided Information	Issue Identified	Comments
Environmental Liens or Activity and Use Limitations	No	BMCH California, LLC indicated that they were not aware of environmental liens or activity and use limitations filed or recorded for the Site. In addition, review of the Environmental Lien Search revealed no environmental liens or activity and use limitations for the APN(s) 8039-014-027. A copy of the NETR Environmental Lien and AUL Search is provided in Appendix D.
Specialized Knowledge	No	BMCH California, LLC indicated that they do not have specialized knowledge or experience regarding the Site.
Commonly Known or Reasonably Ascertainable Information	No	BMCH California, LLC indicated that they are not aware of the past use of the Site, they are not aware of specific chemicals stored at the Site, previous releases of chemicals, and/or environmental cleanups that may have taken place at the Site.
Valuation Reduction for Environmental Issues	No	BMCH California, LLC indicated that the purchase price for the Site reflects fair market value.
Owner, Property Manager, and Occupant Information	No	Seramzu, LLC c/o Carden Whittier School, Inc. currently owns the Site. Refer to Section 6.1 for owner interview information.
Reason for Performing Phase I ESA	No	The purpose of the Phase I ESA was to identify, to the extent feasible and pursuant to the processes prescribed in ASTM International E1527-13, RECs, HRECs, and CRECs in connection with due diligence for the purchase of the Site.

User Provided Information	Issue Identified	Comments
Other	No	Leighton did not conduct any other interviews except for those noted in Section 6.0.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

A search of selected government databases was conducted by Leighton using the ERIS Database Report , dated April 4, 2018. Details of the database search along with descriptions of each database researched are provided in the ERIS Database Report (Appendix E). The report meets the government records search requirements of ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-13. Information obtained from the ERIS Database Report was supplemented with information about the physical settings of the Site included in the ERIS Physical Settings Report (Appendix E).

Regulatory Report Summary

Database	Search Radius	Target Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
RCRA SQG	0.25	0	0	1	-	-	1
EnviroStor	1.0	0	0	0	0	2	2
LUST	0.5	0	0	1	5	-	6
Delisted LST	0.5	0	0	0	1	-	1
LA HMS	0.25	1	0	1	-	-	2
ALT Fuels	0.25	0	0	1	-	-	1
HAZNET	PO	2	2	-	-	-	4
Total	-	3	2	4	6	2	17

4.1.1 Site

The Site was identified in the database report as Lowell Joint School District in the LA HMS and HAZNET databases. The LA HMS listing pertains to four underground storage tanks (USTs) that were historically present on the southern portion of the school property, which is not a part of the Site. Three 520-gallon USTs containing weed oil, diesel fuel, and regular gasoline, and one 5,000-gallon UST

containing unleaded gasoline were reportedly installed in July 1985, and then removed in December 1985. Based on the lack of historical use and the historical USTs offsite locations, the historical USTs have a low potential to adversely affect the Site. The HAZNET database listing pertains to hazardous waste manifests, which are discussed in Section 4.1.4.

4.1.2 Offsite

The listings in the database report were reviewed and not interpreted to represent a potential adverse environmental effect to the Site at the time of this report preparation based on one or more of the following:

- Nature of the database listing and not appearing on a database that reports unauthorized releases of hazardous substances,
- Reported regulatory agency status (eg. Case Closed),
- Distance of the facility to the Site, and/or,
- Location of the facility with respect to anticipated groundwater flow direction.

4.1.3 Vapor Encroachment

Leighton reviewed the ERIS Xplorer application that gathers regulatory database information from the accompanying Radius Report and allows the user to integrate groundwater information, regional geology, and other information to evaluate the concern for potential vapor encroachment from on-site activities and from adjacent properties. Xplorer was designed by ERIS to assist parties seeking to meet the Tier 1 requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E2600-10).

Using the Xplorer application, the offsite database listings near the Site found that vapor encroachment is not a REC for the Site.

4.1.4 Regulatory Agency Contacts

Leighton requested regulatory records from the following agencies for the address of 11537 Grovedale Drive and APN 8039-014-027 in Whittier, California 90604. Regulatory correspondence is included in Appendix G.

Agency	Records Found	Comments
Department of Toxic Substances Control (DTSC)	Yes	Leighton reviewed records posted on the DTSC's on-line ENVIROSTOR. There were two facilities found within one mile of the Site on the ENVIROSTOR website. The facilities are soils only cases with heavy metals contamination from historical railroad usage. The listings in the ENVIROSTOR website have a low potential to adversely affect the Site. Leighton searched for records posted on the DTSC's Hazardous Waste Transporting System (HWTS) online database for hazardous waste manifests pertaining to the Site. Hazardous waste information was available for the years 2006-2016. The generator is listed as Lowell Joint School District, therefore the hazardous waste is likely generated at the public school maintenance yard adjacent to the south of the Site. File review requests were forwarded to the DTSC Cypress Office and the DTSC Chatsworth Office via facsimile. Leighton received a letter from Ms. Julie Johnson of the DTSC Cypress office and a letter from Mr. Robert Hardison with the DTSC Chatsworth Office, respectively, stating that no records were found for the Site.

Agency	Records Found	Comments
State Water Resources Control Board (SWRCB)	Yes	Leighton reviewed records posted on SWRCB's on-line GeoTracker database. The GeoTracker database search found 14 records of environmental cases within 1.0-miles of the Site. The nearest open case (Tosco 76 Station) is located approximately 2,100 feet to the northwest of the Site, and has a low potential to adversely affect the Site.
Regional Water Quality Control Board – Los Angeles Region (LARWQCB)	No	Leighton forwarded a file review request to the LARWQCB via email. Leighton received a response from the LARWQCB via email indicating that no records were found for the Site.
South Coast Air Quality Management District (AQMD)	No	Leighton searched for records on South Coast AQMD's FINDS website. No records were found pertaining to the Site.
Los Angeles County Department of Public Works (LACDPW)	No	A file review request was forwarded to the LACDPW via email. Leighton received a response from LACDPW via email indicating that no records were found for the Site.

Agency	Records Found	Comments
Radon		Radon is not regulated within the State of California. Nonetheless, the California Department of Health Services (CDPH) and the United States Environmental Protection Agency (US EPA) both recommend a threshold of 4 picocuries per liter (pCi/L) above which certain precautions be taken to mitigate radon buildup in structures. The California Department of Health Services maintains a database of indoor radon levels that are sorted by zip code. According to the most recent update, prepared in February 2017, 14 tests were completed in the Site's zip code and three (3) tests (or 21.4%) exceeded 4pCi/L. Los Angeles County is listed as an EPA Radon Zone 2, which corresponds to an indoor average level between 2 pCi/L and 4 pCi/L.

4.1.5 Previous Environmental Assessment Reports

Leighton reviewed a Phase I ESA for the Site prepared by AEI Environmental and Engineering Services dated May 28, 2008. The Phase I ESA identified the presence of oil well at the Site as a REC. An addendum to the Phase I ESA was submitted on June 6, 2008 confirming the presence of the oil well at the Site. AEI recommended an indoor air quality survey be performed at the Site to investigate the presence of methane and hydrogen sulfide. No records were provided to Leighton that indicate the indoor air testing was performed. The presence of an oil well at the SIte is a REC for the Site. The oil well is discussed further in Section 4.2.

In addition, the Phase I ESA report recommended developing an Operations and Maintenance (O&M) Plan for potential asbestos-containing materials (ACM) and lead-based paint based on the age of the existing structures at the Site.

4.2 Physical Settings Source(s)

General Site Settings	
Topography	The Site is located in Section 12 of Township 3 South, Range 11 West of the San Bernardino Baseline and Meridian. Topographic map coverage of the Site vicinity is provided by the United States Geological Survey (USGS) "La Habra, California" Quadrangle (2015). The elevation of the Site is approximately 253 feet above mean sea level (amsl). The Site slopes relatively gently to the west-southwest. A relatively steep slope, approximately 18 feet high is present along the western margin of the Site.
Surface Water	Surface water was observed at the Site. A decorative pond is present in the courtyard in the central southern portion of the Site.
Geology and Soils	Geologic map coverage of the site vicinity is provided by the California Geological Survey, Geologic Map of California (2010). The Site is underlain by Quaternary-aged Old Alluvium (Qoa).
Hydrogeology	The Site is located in the San Gabriel River Hydrologic Unit, Lower San Gabriel Hydrologic Area, and Central Hydrologic Subarea (405.15). Existing beneficial uses of groundwater in the vicinity of the Site include municipal, industrial, process industrial and agricultural (LARWQCB, 2014). Leighton reviewed the GeoTracker website for groundwater elevation data in the Site vicinity. Based on the Tosco 76 and Mobil 18-E0R monitoring well elevations, first encountered groundwater at the Site is anticipated to be 15 to 20 feet bgs.
Valuation Reduction for Environmental Issues	None reported.

General Site Settings	
Oil and Gas Fields	Leighton reviewed the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Online Mapping System, on April 20, 2018. Phillips Petroleum Well Number 1 is depicted in the northeast portion of the Site on the DOGGR website. Phillips Petroleum Well Number 1 was a producing oil well that was drilled in 1953 to a total depth of 8,760 feet. The oil well was abandoned in 1956. Well records indicate that the well was backfilled with cement and sand, and the final concrete plug was installed from a depth of 14 feet bgs to 4 feet bgs, and a steel plate was welded onto the top of the well casing. Based on Leighton's review of the 1954 aerial photograph, Phillips Petroleum Well Number 1 was present on-site from 1953-1956 beneath the existing school building in the eastern central portion of the Site. The presence of a producing oil well is a REC for the Site. Leighton reviewed the United States Pipeline and Hazardous Materials Safety Administration's Pipeline Information Management Mapping Application (PIMMA), on February 14, 2018. No evidence of hazardous materials pipelines was identified on the Site or adjacent properties.

4.3 Historical Resources Reviewed

Historical Resources Reviewed	
Historical Resource	**Years Reviewed**
Aerial Photographs	1928, 1936, 1947, 1953, 1963, 1974, 1980, 1987, 1994, 2005, 2010, 2012, 2014, and 2016
Historical Topographic Maps	1896, 1898, 1901, 1927, 1935, 1942, 1950, 1952, 1964, 1972, 1974, 1981, and 2015
Fire Insurance Maps	No coverage

Historical Resources Reviewed	
Historical Resource	**Years Reviewed**
Historical City Directories	1936, 1941, 1944, 1961, 1965, 1972, 1975, 1980, 1985, 1989, 1996, 2001, 2006, 2009, and 2015
Recorded Land Title Records	8039-014-027: Seramzu, LLC, received from Lowell Joint School District; Deed Recorded: 2/25/2015. No environmental liens or AULs found.
Other Historical Sources	No building permits were found for the Site (Appendix G).

4.4 Historical Use Information on the Property

Historical Summary Table		
Dates	**Uses**	**Source(s)**
Prior to 1896	Unknown	None Available
1893 to 1953	An ephemeral stream roughly bisects the Site. Agricultural row crops are observed in the northwestern and southern portions of the Site.	Aerial Photographs, Topographic Maps
1953 to 1956	An oil well was historically present in the eastern central portion of the Site. The oil well was drilled to a total depth of 8,760 feet in 1954. The oil well was reportedly in production from 1954 to 1956. Well records indicate the well was abandoned by back filling the hole with concrete and sand. The final concrete plug was placed from 14 feet bgs to 4 feet bgs, and a steel plate was welded onto the top of the casing.	Aerial Photographs, Topographic Maps, DOGGR Records

Historical Summary Table		
Dates	**Uses**	**Source(s)**
1957 to present	The school at the Site was constructed in 1957 with five total structures. Additional structures and modular buildings were first observed in the 2005 aerial photograph. Based on the age of the structures, there is a potential for lead from lead-based paint and termiticides to be present in shallow soils surrounding the existing structure.	Aerial Photographs, City Directories, Topographic Maps, On-Site Observations, Interviews

4.5 Historical Use Information on Adjacent Property

Historical Summary Table		
Dates	**Uses**	**Source(s)**
Prior to 1893	Unknown	None Available
1893 to prior to 1963	North: Agriculture South: Agriculture East: Agriculture West: Agriculture	Aerial Photographs, Topographic Maps
1963-present	North: Residential South: Commercial (School Maintenance Yard) East: Residential West: Residential	Aerial Photographs, City Directories, Topographic Maps, On-Site Observations, Interviews

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On April 6, 2018, a representative of Leighton conducted a reconnaissance–level assessment of the Site. The Site reconnaissance consisted of observing and documenting existing conditions of the Site and nature of the neighboring development within 0.25-miles of the Site. Photographs of the Site are presented in Appendix B. Locations and direction of the photographs taken are depicted in Figure 2.

5.2 Exterior and Interior Observations

The Site is currently developed as a private school. The Site is comprised of approximately 5.77 acres acres with four permanent structures and 14 modular structures and associated school improvements (Photos 1 to 8 – Appendix B). The surrounding vicinity is developed primarily as single-family residences with some commercial activities in the Site vicinity.

Issue	Observed	Property	Adjacent Properties
Hazardous Substances, Drums, and Other Chemical Containers	No	Hazardous Substances, Drums, and Other Chemical Containers were not observed at the Site.	Hazardous substances were not observed on the adjacent properties.
Storage Tanks	No	Evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) (such as vent lines, fill or overfill ports) were not observed on the Site.	Not observed

Issue	Observed	Property	Adjacent Properties
Polychlorinated Biphenyls (PCBs)	Yes	Transformers were observed on-site (Photos 7 and 8). The transformers were labeled "Class AA Dry Type Transformer," indicating the potential for PCB-containing oils is low.	Not observed
Waste Disposal	Yes	City of Whittier	Not observed
Dumping	No	Significant amounts of dumping was not observed on the Site.	Not observed
Pits, Ponds, Lagoons, Septic Systems, Wastewater, Drains, Cisterns, and Sumps	Yes	Evidence of pits, lagoons, septic systems, wastewater, and cisterns was not observed at the Site. An ornamental pond is present in the central portion of the Site (Photo 6).	Not observed
Pesticide Use	No	Pesticide use was not observed on the Site.	Not observed
Staining, Discolored Soils, Corrosion	No	Staining, discolored soils, or corrosion were not observed on the Site.	Not observed
Stressed Vegetation	No	Stressed vegetation was not observed on the Site.	Not observed
Unusual Odors	No	Unusual odors were not detected on the Site.	Not observed

Issue	Observed	Property	Adjacent Properties
Onsite Wells	No	Evidence of groundwater wells and/or oil and gas wells was not observed onsite.	Not observed
Other Observations	No	No other observations were made during the site reconnaissance that have the potential to adversely affect the Site. The age of the buildings onsite suggests the potential presence of asbestos-containing materials (ACMs) and lead-based paint.	N/A

6.0 INTERVIEWS

Title	Name	Comments
Owner	Seramzu, LLC	Mr. Randi Seagren, manager for the owner completed the Phase I interview form. The owner indicated that the previous owners of the Site was a school district. The owner indicated that they are not aware of any chemicals used at the property, spills, cleanups, or other environmental concerns associated with the Site or adjacent properties.
Site/Property Manager	N/A	Leighton did not interview the property manager for the Site. Refer to Section 6.1 for interview information.
Occupants	N/A	Leighton did not interview current occupants of the Site as part of this Phase I ESA.
Local Government Officials	N/A	Leighton did not interview employees with local government agencies to request information regarding historic and current uses of the Site with the exception of those noted in Section 4.2.
Others	N/A	Leighton did not conduct other interviews for this Phase I ESA with the exception of the User Interview described in Section 3.0.

7.0 FINDINGS

Leighton performed a Phase I ESA for the Carden School of Whittier located at 11537 Grovedale Drive in the City of Whittier, Los Angeles County, California (Site Location Map – Figure 1) in accordance with BMCH California, LLC's authorization.

7.1 Site

Based on historical records, land usage is summarized as follows:

Historically, the Site was roughly bisected by an ephemeral stream that trended from northeast to southwest. The northwestern and southern portions of the Site were utilized for agricultural purposes from at least 1928 to 1957. The school was constructed in 1957 with five total strucutres Currently, the Site is an approximately 5.77 acres-acre parcel of land, developed as a private school with four permanent structures, 14 modular structures and associated improvements.

A search of selected government databases was conducted by Leighton using the ERIS Database Report , dated April 4, 2018. Details of the database search along with descriptions of each database researched are provided in the ERIS Database Report (Appendix E). The report meets the government records search requirements of ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-13. Information obtained from the ERIS Database Report was supplemented with information about the physical settings of the Site included in the ERIS Physical Settings Report (Appendix E).

The Site was identified in the database report as Lowell Joint School District in the LA HMS and HAZNET databases. The LA HMS listing pertains to four underground storage tanks (USTs) that were historically present on the southern portion of the school property, which is not a part of the Site. Three 520-gallon USTs containing weed oil, diesel fuel, and regular gasoline, and one 5,000-gallon UST containing unleaded gasoline were reportedly installed

in July 1985, and then removed in December 1985. Based on the lack of historical use and the historical USTs offsite locations, the historical USTs have a low potential to adversely affect the Site.

Based on the age of the structures at the Site (1957), there is a potential for asbestos-containing materials (ACM) and lead-based paint to be present in the onsite structures. In addition, due to the historical practice of applying termiticides around building foundations, shallow soils around the existing structures have the potential to be impacted with organochlorine pesticides and/or lead.

An oil well was historically present in the eastern central portion of the Site. The oil well was drilled to a total depth of 8,760 feet in 1954. The oil well was reportedly in production from 1954 to 1956. Well records indicate the well was abandoned by back filling the hole with concrete and sand. The final concrete plug was placed from 14 feet bgs to 4 feet bgs, and a steel plate was welded onto the top of the casing. The historical presence of an oil well is considered an REC for the Site.

7.2 Offsite

The Site is bordered by residences to the north, east, and west, and a school maintenance yard to the south. No offsite RECs, HRECs, or CRECs were identified that are likely to adversely affect the Site.

7.3 Data Gaps

The following data gap was identified by Leighton:

- Historical records prior to 1896 were not available. It is Leighton's opinion that this data gap is not significant to identifying RECs.
- Access to the interior of the Site structures was not granted to Leighton, which is a data gap in this Phase I ESA report. However, it is Leighton's opinion that this data gap is not significant to identifying RECs.

8.0 OPINION

8.1 Onsite

This assessment has identified the following RECs in connection with the Site:

- Historical use for agricultural purposes from the 1920s to 1950s has the potential to impact shallow soils at the Site with organochlorine pesticides (OCPs).
- Based on the age of the structures, there is the potential for lead and termiticide impacts in shallow soils surrounding the structures.
- Abandoned oil wells have the potential to impact soils with elevated levels of crude oil, petroleum hydrocarbons and metals from soil cuttings being placed at the Site. In addition, there is a potential for methane and hydrogen sulfide gases to migrate from the underlying formation into building interiors adversely affecting human health.

While not a REC, It is Leighton's opinion that a Hazardous Building Material Survey should be performed on all onsite structures to determine if asbestos-containing materials (ACM) and/or lead-based paint (LBP) are present.

8.2 Offsite

No offsite RECs, HRECs, or CRECs were identified that are likely to negatively impact the Site.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Leighton has performed this Phase I ESA in conformance with the scope and limitations of ASTM E1527-13, which satisfies the all appropriate inquiry for purposes of 42 USC §9601(35) (B) 40 CFR Part 312, for the property located at 11537 Grovedale Drive, Whittier, California, APN 8039-014-027. Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of RECs, HRECs, or CRECs in connection with the property, with the exception of the following:

- Historical use for agricultural purposes from the 1920s to 1950s is an REC for the Site.
- Based on the age of the structures, the potential for lead and termiticide impacts in shallow soils is a REC for the Site.
- The presence of an abandoned oil well is an REC for the Site.

While not considered a REC, Leighton recommends conducting a Hazardous Building Materials Survey to identify asbestos-containing building materials and universal wastes prior to demolishing structures at the Site.

Based on the findings of this Phase I ESA, Leighton recommends the following:

- Shallow soils at the Site should be investigated in areas of historical agricultural use for the presence of organochlorine pesticides (OCPs) and arsenic.
- Shallow soils at the Site should be investigated in areas surrounding building foundations for the presence of termiticides (OCPs) and lead.
- A geophysical survey should be performed at the Site to determine the exact location of the abandoned oil well and to identify areas of soil disturbance where drill cuttings or well waste water may have been discharged. A soil and soil vapor investigation should be conducted to determine if elevated levels of petroleum hydrocarbons

and/or metals are present in soils at the Site. In addition, soil vapor samples should be collected to determine if methane, hydrogen sulfide, or volatile organic compounds are present in soils at the Site. Upon receipt of the soil and soil vapor samples, the Division of Oil, Gas and Geothermal Resources (DOGGR) should be engaged to determine if re-abandonment of the oil well would be required.

While not considered an REC, a hazardous building materials survey should be performed on all existing structures at the Site to identify asbestos-containing materials (ACM), lead-based paint (LBP), and universal wastes prior to the demolition of the structures at the Site.

In general, observations should be made during future property development for areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, and tanks, stained soil or odorous soils. Should such materials be encountered, further investigation and analysis may be necessary at that time.

10.0 DEVIATIONS

Leighton did not deviate from or alter the scope of work, as defined in Section 1.3 of this report. Significant data gaps were not identified that could affect the ability of Leighton to identify recognized environmental conditions at the Site.

11.0 ADDITIONAL SERVICES

Leighton did not perform any other additional services outside the scope of work as defined in Section 1.3 of this report.

12.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

12.1 Corporate

Leighton is a California corporation, providing geotechnical and environmental consulting services throughout California. We are solely a consulting firm without interests in real property other than our office locations in Southern California. We provide professional environmental consulting services including application of science and engineering to environmental compliance, hazardous materials/waste assessment and cleanup, and management of hazardous, solid and industrial waste. Phase I Environmental Property Assessments are a part of this practice area and have been conducted by us.

12.2 Individual

The qualifications of the Project Manager and the other Leighton environmental professionals involved in this Phase I ESA meet the Leighton corporate requirements for performing Phase I ESAs as specified by ASTM E1527-13.

12.3 Environmental Professional Statement

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional, as defined by §312.10 of 40 CFR Part 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Figure 1: Site Location Map

Leighton

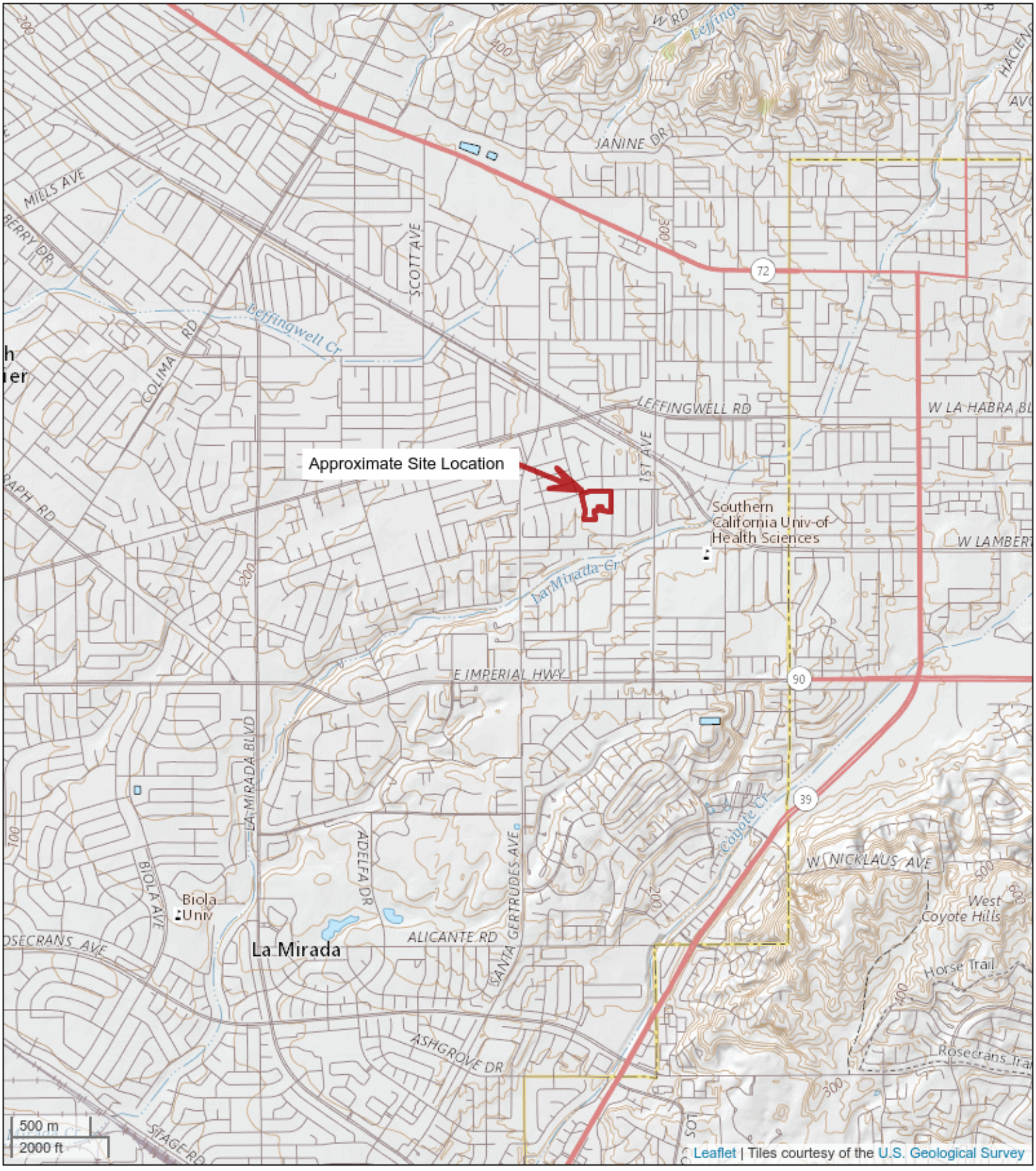


Figure 1: Site Location Map

Phase I Environmental Site Assessment
Carden School of Whittier
11537 Grovedale Drive
Whittier, California

Leighton

Figure 2: Site Plan



N
W
E
S

Figure 2: Site Plan

Carden School of Whittier
11537 Grovedale Drive
Whittier, California

Leighton

Appendix B - Site Reconnaissance Photos

Leighton

1



Photo 1: View of the parking lot on the eastern portion of the Site.

2



Photo 2: View of a typical building at the Site.

3



Photo 3: View of the maintenance access driveway on the western portion of the Site.

4



Photo 4: View of a playground at the Site.

5



Photo 5: View of basketball courts and modular classrooms at the Site.

6



Photo 6: View of the ornamental pond in the central southern portion of the Site.

7



Photo 7: View of a transformer in the eastern portion of the Site.

8



Photo 8: Close up of a transformer at the Site. The transformer was labeled "dry type" indicating the presence of PCB-containing oils is low.

Appendix C - Client-supplied Documentation

Phase I ESA Users Questionnaire

Project Name: Carden - Whittier

Complete and Correct Address(es) of the Property and APN(s):

11537 Grovedale Drive, Whittier CA 90604 | APN: 8039-014-027

User Company Name:	**User Name/Title:**
Century Communities	Frank Sotelo / Sr Land Acquisition Manager

User Phone/Email: (562) 309-1850 / frank.sotelo@centurycommunities.com

Interviewee Name and Relationship to Project:

Frank Sotelo, Senior Land Acquisition Manager

Site Owner: Seramzu LLC

Reason Phase I is required:

Due Diligence for future entitlement project

Type of property:

Private School Property

Type of property transaction (e.g., Sale, purchase, exchange):

Purchase

Any scope of services beyond the ASTM Practice E 1527:

N/A

All Parties that will rely on the Phase I report:

Century Communities

Name and Contact Information for Site Contact:

Frank Sotelo, 562-309-1850

Any special terms or conditions:

Access available when school is not in session

Any other pertinent knowledge or experience with the property (e.g., prior reports, documents, correspondence concerning the environmental conditions of the property):

Seller provided a phase 1

(1). Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Did a search of recorded land title records (or judicial records where appropriate identify any environmental liens filed or recorded against the property under federal, tribal, state or local law? Yes | ✓ No

If Yes, Describe:

(2). Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Did a search of recorded land title records (or judicial records where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? Yes | ✓ No

If Yes, Describe:

(3). Specialized knowledge or experience of the person seeking to qualify for the Landowners Liability Protections (LLP) (40 CFR 312.28).

Do you have any specialized knowledge or experience related to the property or the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes | ✓ No

If Yes, Describe:

(4). Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 DRF 312.29).

Does the purchase price being paid for this property reasonably reflect the fair market value of the property?

✓ Yes | No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? Yes | No

If Yes, Describe:

(5). Commonly known or reasonable ascertainable information about the property (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the property that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as user,

(a.) Do you know the past uses of the property? Yes | ✓ No

(b.) Do you know of specific chemicals that are present or once were present at the property? Yes | ✓ No

(c.) Do you know of spills or other chemical releases that have taken place at the property? Yes | ✓ No

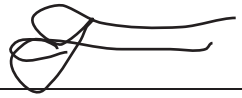
(d.) Do you know of any environmental cleanups that have taken place at the property? Yes | ✓ No

If Yes, Describe:

(6). The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

Based on your knowledge and experience related to the *property*, are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property?* Yes | ✓ No

If Yes, Describe:



Signature

4-23-2018

Date

Leighton

Leighton

Phase I ESA Owner/Site Contact Interview Form

Interviewee Name: Randi Seagren **Title:** Manager

Address: 1495 W. Lambert Rd. La Habra CA 90631 **Phone:** (562) 665-7950

Relationship to Property: Manager of the LLC that owns the Property

Name of Property Owner: Seramzu LLC

Address of Property Owner: 11537 Grovedale Drive, Whittier CA

Site Name: Carden School Whittier

Property Address: 11537 Grovedale Drive, Whittier

Previous Street Names/Numbers:

General Business Type/Present Property Use: Private School

Property Utilization during Ownership: Private School

Assessor Parcel #: 8039-014-027 **Grant Total Square Footage:**

Total # of Buildings: 4 plus 14 Modulars **Date Built:**

Name and Address of Past Owners (include dates of ownership): Lowell Joint School District 11019 Valley Home Ave., Whittier CA 90603

Past Property Uses (include dates): Public School

Source of Potable Water Supply (municipal/groundwater wells): Municipal

Sewage Disposal (municipal/septic) (provide name of utility): Municipal

Means of Heating/Cooling (gas, electric, heating oil, etc.): Gas & Electric

Fuel Source for Heating/Air Conditioning (provide name of utility): Edison (SCE) SoCal Gas

Neighboring Property Types (commercial/industrial/residential): Residential and Public School

Current Uses of Adjoining Properties:

North: N/A

South: Public School Storage/Maintenance Shed

East: N/A

West: Residential

ARE THERE NOW, OR HAVE THERE BEEN IN THE PAST, ANY OF THESE ITEMS ONSITE OR ON ADJACENT PROPERTIES:

ITEM	YES	NO	UNK	ADJACENT PROPERTY
• Hazardous Materials		✓		
• Hazardous Waste		✓		
• MSDS Sheets		✓		
• Underground Storage Tanks (USTs)		✓		
• Aboveground Storage Tanks (ASTs)		✓		
• Vent Pipes, fill pipes, or access ways indicating a fill pipe to an underground storage area		✓		
• Odors		✓		
• Drums		✓		
• Electrical or hydraulic equipment known to contain Polychlorinated Biphenyls (PCBs)		✓		
• Stained soil or surfaces		✓		
• Drains	✓			
• Sumps		✓		
• Clarifier		✓		
• Pits, ponds, or lagoons	X			
• Stressed vegetation		✓		
• Areas for dumping solid waste (landfill)		✓		
• Wastewater		✓		
• Wells (groundwater, oil, and/or gas)	✓			
• Septic Systems		✓		
• Fill Material (If fill material is on site, please state source of fill)		✓		

ADDITIONAL QUESTIONS:	YES	NO	UNK	REMARKS
Has the Site been used as any of the following: gas station, motor repair facility, commercial printing facility, metal plating, dry cleaners, photo developing laboratory, junkyard, or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? If so, state which type of facility.		✓		
Are you aware of any Phase I or Phase II environmental site assessments, soil sampling reports, geotechnical or geologic reports, environmental compliance audit reports, environmental permits, registrations for USTs or ASTs, community right-to-know plans, environmental safety plans or reports regarding hazardous waste generation for the Site?		✓		
Do you know of any notices or correspondence from any government agency relating to past or current violations of environmental laws with respect to the Site or relating to environmental liens encumbering the Site?		✓		
Do you know of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site?		✓		
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		✓		
Do you know of any environmental concerns associated with the Site? If so please state in remarks column.		✓		
Do you know of any environmental concerns associated with any adjacent or nearby properties? If so please state in remarks column.		✓		

Additional Comments:

Preparer presents that to the best of the preparer's knowledge the above statements and facts are true and correct, and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Randi Seagren
Signature

3-28-18
Date

Location Information

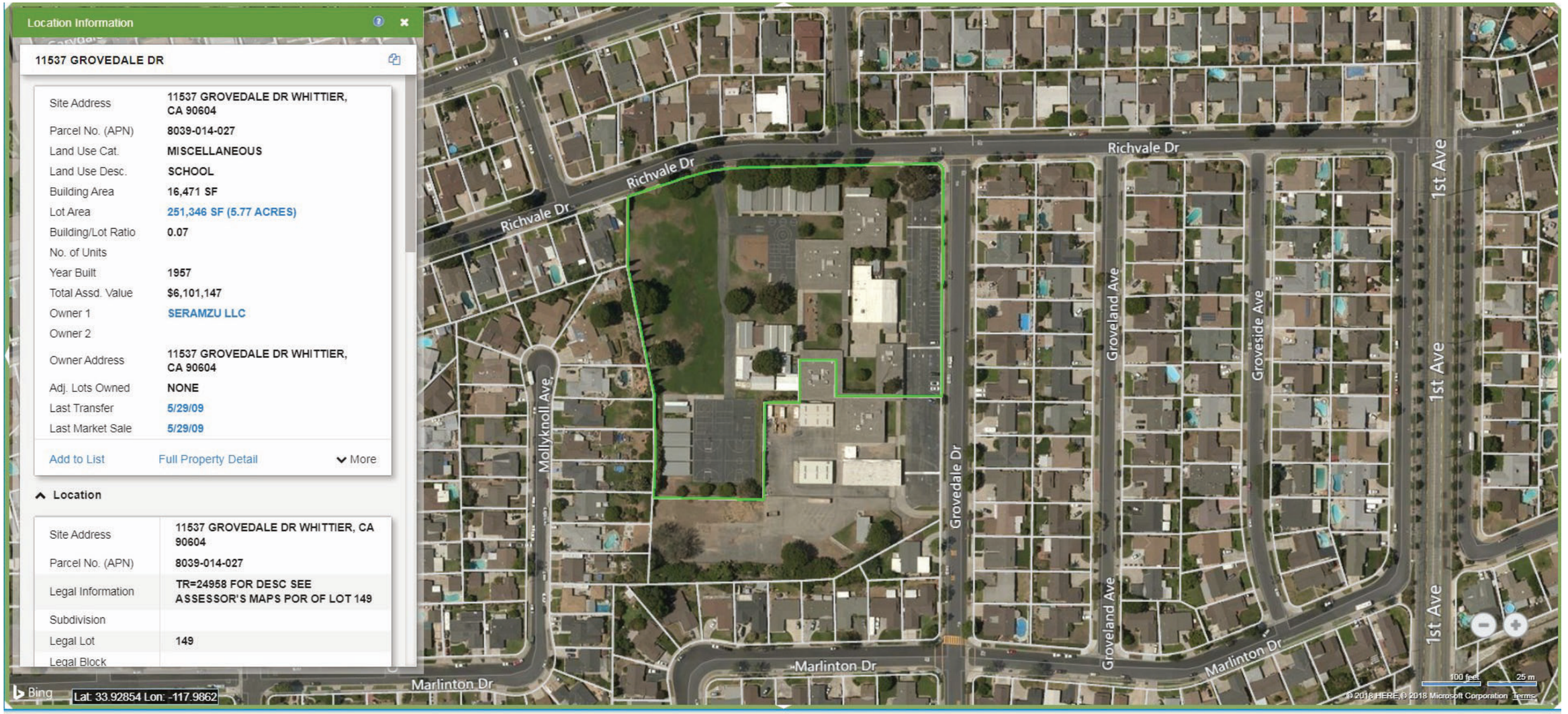
11537 GROVEDALE DR

Site Address	11537 GROVEDALE DR WHITTIER, CA 90604
Parcel No. (APN)	8039-014-027
Land Use Cat.	MISCELLANEOUS
Land Use Desc.	SCHOOL
Building Area	16,471 SF
Lot Area	251,346 SF (5.77 ACRES)
Building/Lot Ratio	0.07
No. of Units	
Year Built	1957
Total Assd. Value	$6,101,147
Owner 1	SERAMZU LLC
Owner 2	
Owner Address	11537 GROVEDALE DR WHITTIER, CA 90604
Adj. Lots Owned	NONE
Last Transfer	5/29/09
Last Market Sale	5/29/09

Add to List | Full Property Detail | More

Location

Site Address	11537 GROVEDALE DR WHITTIER, CA 90604
Parcel No. (APN)	8039-014-027
Legal Information	TR=24958 FOR DESC SEE ASSESSOR'S MAPS POR OF LOT 149
Subdivision	
Legal Lot	149
Legal Block	



Appendix D - Environmental Lien and AUL Search

ENVIRONMENTAL RISK INFORMATION SERVICES

38 Lesmill Road, Unit 2, Toronto, ON M3B 2T5
Phone : 416-510-5204 • Fax : 416-510-5133
info@erisinfo.com • www.erisinfo.com

THE ERIS ENVIRONMENTAL LIEN SEARCH REPORT

BENCHMARK EAST WHITTIER PHASE I ESA
11537 GROVEDALE DR
WHITTIER, CA

ERIS Project No. 20180402212

04/04/2018

ENVIRONMENTAL LIEN REPORT

The ERIS Environmental Lien Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied property information to:

- Search for parcel information and / or legal description
- Search for ownership information
- Research official land title documents recorded at jurisdictional agencies such as recorder's' office, registries of deeds, county clerks' offices, etc.
- Access a copy of the deed
- Search for environmental encumbrance(s) associate with the deed
- Provide a copy of any environmental encumbrance(s) based upon a review of keywords in the instrument(s) (title, parties involved and description)
- Provide a copy of the deed or cite documents reviewed

Thank You For Your Business
Please contact ERIS at **416-510-5204**
with any questions or comments

LIMITATION

This report is neither a guarantee of title, a commitment to insure, or a policy of title insurance. ERIS – Environmental Risk Information Services does not guarantee nor include any warranty of any kind whether expressed or implied, about the validity of all information included in this report since this information is retrieved as it is recorded from various agencies that make it available. The total liability is limited to the fee paid for this report.

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

ENVIRONMENTAL LIEN REPORT

The ERIS Environmental Lien Search Report is intended to assist in the search for environmental liens filed in land title records.

TARGET PROPERTY INFORMATION

ADDRESS

11537 GROVEDALE DR
WHITTIER, CA

RESEARCH SOURCE

LOS ANGELES COUNTY RECORDER
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEED INFORMATION

Type of Instrument: GRANT DEED

Grantor: LOWELL JOINT SCHOOL DISTRICT

Grantee: SERAMZU LLC

Deed Dated: 05/28/2009
Deed Recorded: 05/29/2009
Instrument: 20090796364

LEGAL DESCRIPTION

POR OF LOT 149 TR 24958

Assessor's Parcel Number (s): 8039-014-027

ENVIRONMENTAL LIEN

Environmental Lien: Found x Not Found

If Found Describe:

ENVIRONMENTAL LIEN REPORT

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found x Not Found

If Found Describe:

LEASES

Lessor: NONE IDENTIFIED
Lessee:

Lease Date:
Recorded Date:
Instrument #:
Lease Type:
Comments:

This page is part of your document - DO NOT DISCARD

20090796364

Recorded/Filed in Official Records
Recorder's Office, Los Angeles County,
California

05/29/09 AT 08:00AM

Pages:
0008

FEES:	31.00
TAXES:	NFPR
OTHER:	0.00
PAID:	NFPR

LEADSHEET

200905290120003

00000606029

002128519

SEQ:
01

DAR - Title Company (Hard Copy)

THIS FORM IS NOT TO BE DUPLICATED

E484773

t94



2

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

SERAMZU, LLC c/o
CARDEN WHITTIER SCHOOL, INC.
Attn: Randi Seagren, President
11537 Grovedale Dr.
Whittier, CA 90604

20600272

(Space Above For Recorder's Use)

TRANSFER TAX
NOT A PUBLIC RECORD

7

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, LOWELL JOINT SCHOOL DISTRICT, a public school district duly organized and existing under Chapter 1 of Division 3 of Title 2 of the Education Code of the State of California, hereby grants to SERAMZU, LLC, a limited liability company, that certain real property located in the County of Los Angeles, State of California, along with all improvements thereon, as described in the legal description attached hereto as Exhibit "A," incorporated herein by this reference.

THE PROPERTY IS CONVEYED TO GRANTEE SUBJECT TO:

1. Current taxes and assessments.
2. All other covenants, conditions, restrictions, reservations, rights, rights of way, easements and title matters whether or not of record or visible from an inspection of the Property and all matters which an accurate survey of the Property would disclose.

Dated: 5/28/09

LOWELL JOINT SCHOOL DISTRICT

Patricia Howell

Dr. Patricia Howell, Superintendent

ACKNOWLEDGEMENT - GENERAL

STATE OF **CALIFORNIA** }
}SS.
COUNTY OF Los Angeles }

On May 28, 2009 before me, Renee M. Verbeck, Notary Public
personally appeared Patricia Howell

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Renee M. Verbeck

RENEE M. VERBECK
Commission # 1672872
Notary Public - California
Los Angeles County
My Comm. Expires Jun 6, 2010

(This area for notary stamp)

EXHIBIT "A" TO GRANT DEED

LEGAL DESCRIPTION OF LAND

LEGAL DESCRIPTION NEW PARCEL 1

LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 197 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 197 A DISTANCE OF 55.96 FEET; THENCE SOUTH 11°51'27" EAST 48.39 FEET; THENCE SOUTH 1°10'43" EAST 12.07 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 197; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 66.77 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 197; THENCE ALONG THE EASTERLY LINE OF SAID LOT 197, NORTH 0°35'30" EAST 59.32 FEET TO THE POINT OF BEGINNING

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 148 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE NORTH 71°22'40" EAST ALONG THE NORTHWESTERLY LINE OF SAID LOT 149 AND ALONG THE SOUTHEASTERLY LINE OF RICHVALE DRIVE, 60 FEET WIDE AS SHOWN ON SAID MAP OF TRACT NO. 24458, A DISTANCE OF 16.29 FEET; THENCE SOUTH 0°35'30" WEST 114.11 FEET; THENCE SOUTH 11°51'27" EAST 3.60 FEET TO THE NORTHEASTERLY PROLONGATION OF THE SOUTHEASTERLY LINE OF SAID LOT 148; THENCE ALONG SAID NORTHEASTERLY PROLONGATION, SOUTH 71°24'55" WEST 17.11 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 148; THENCE ALONG THE EASTERLY LINE OF SAID LOT 148, NORTH 0°35'30" EAST 117.88 FEET TO THE POINT OF BEGINNING

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 202 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 202; A DISTANCE OF 65.00 FEET; THENCE SOUTH 2°31'49" WEST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 202; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 63.14 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 202; THENCE ALONG THE EASTERLY LINE OF SAID LOT 202, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 198 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK

668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 198, A DISTANCE OF 66.77 FEET; THENCE SOUTH 1°10'43" EAST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 198; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 68.47 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 198; THENCE ALONG THE EASTERLY LINE OF SAID LOT 198, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 200 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 200, A DISTANCE OF 68.75 FEET; THENCE SOUTH 2°31'49" WEST 55.04 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 200; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 66.87 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 200; THENCE ALONG THE EASTERLY LINE OF SAID LOT 200, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 199 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 199 A DISTANCE OF 68.47 FEET; THENCE SOUTH 1°10'43" EAST 32.80 FEET; THENCE SOUTH 2°31'49" WEST 22.24 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 199; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 68.73 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 199; THENCE ALONG THE EASTERLY LINE OF SAID LOT 199, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 196 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE NORTH 71°24'55" EAST ALONG THE NORTHEASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 196 A DISTANCE OF 17.11 FEET; THENCE SOUTH 11°51'27" EAST 184.63 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 196; THENCE ALONG SAID EASTERLY PROLONGATION NORTH 89°24'30" WEST 55.96 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 196; THENCE ALONG THE EASTERLY LINE OF SAID LOT 196; NORTH 0°35'30" EAST 174.67 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW.

BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 203 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK

668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 203, A DISTANCE OF 63.14 FEET; THENCE SOUTH 2°31'49" WEST 50.14 FEET TO THE SOUTHERLY LINE OF SAID LOT 149; THENCE ALONG SAID SOUTHERLY LINE OF LOT 149; SOUTH 88°40'36" WEST 61.47 FEET TO A POINT IN THE EASTERLY LINE OF SAID LOT 203; THENCE ALONG THE EASTERLY LINE OF SAID LOT 203 NORTH 0°35'30" EAST 52.46 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW:

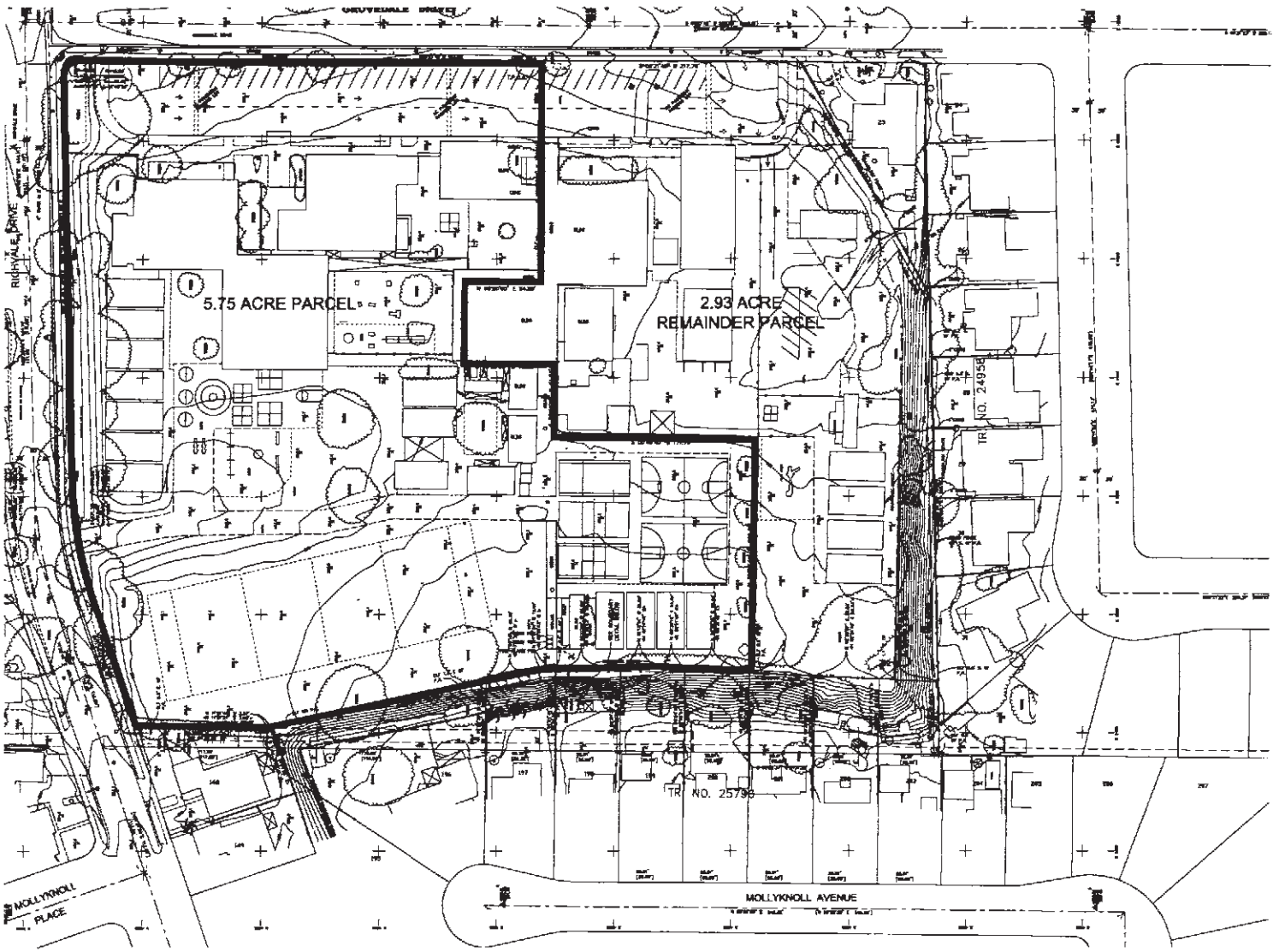
BEGINNING AT A POINT IN THE WESTERLY LINE OF SAID LOT 149, WHICH POINT IS ALSO THE NORTHEASTERLY CORNER OF LOT 201 OF TRACT NO. 25796 AS PER MAP RECORDED IN BOOK 668 PAGE 76 OF MAPS, IN THE OFFICE OF SAID RECORDER; THENCE SOUTH 89°24'30" EAST ALONG THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF SAID LOT 201 A DISTANCE OF 66.87 FEET; THENCE SOUTH 2°31'49" WEST 55.03 FEET TO THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 201; THENCE ALONG SAID EASTERLY PROLONGATION, NORTH 89°24'30" WEST 65.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT 201; THENCE ALONG THE EASTERLY LINE OF SAID LOT 201, NORTH 0°35'30" EAST 55 FEET TO THE POINT OF BEGINNING

ALSO EXCEPT THAT PORTION OF LOT 149 OF TRACT NO. 24958, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 653 PAGES 87 TO 92 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHEASTERLY CORNER OF SAID LOT 149, SAID POINT ALSO BEING THE WESTERLY SIDELINE OF GROVEDALE DRIVE, 60 FEET WIDE, THENCE NORTH 00°21'48" EAST ALONG SAID SIDELINE 217.70 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89°50'00" WEST, 188.81 FEET; THENCE NORTH 00°20'00" EAST, 64.50 FEET; THENCE NORTH 89°40'00" WEST, 64.76 FEET; THENCE SOUTH 00°20'00" WEST, 76.65 FEET; THENCE NORTH 89°30'00" WEST, 61.53 FEET; THENCE SOUTH 00°40'40" WEST, 171.74 FEET; THENCE NORTH 89°06'40" WEST, 200.32 FEET MORE OR LESS TO THE EASTERLY LINE OF THE PROPERTY DESCRIBED AS PARCEL 2 IN THE DOCUMENT RECORDED JANUARY 18, 1984 AS INSTRUMENT NO. 84-73070, OFFICIAL RECORDS.

ALSO EXCEPTING FROM THE REMAINDER OF SAID LAND, ALL OIL, GAS ASPHALTUM AND OTHER HYDROCARBONS AND OTHER MINERALS, WHETHER SIMILAR TO THOSE HEREIN SPECIFIED OR NOT, WITHIN OR UNDERLYING OR THAT MAY BE PRODUCED FROM SAID PROPERTY AND THE SOLE AND EXCLUSIVE RIGHT TO DRILL SLANTED WELLS AND THE SOLE AND EXCLUSIVE RIGHT TO DRILL SLANTED WELLS FROM ADJACENT LANDS INTO AND THROUGH AND TO DEVELOP LINES AND CONSTRUCT TUNNELS, SHAFTS AND OTHER WORKS IN AND THROUGH THE SUBSURFACE OF SAID PROPERTY FOR THE PURPOSES OF RECOVERING SAID MINERALS OR ANY OF THEM, FROM SAID PROPERTY OR OTHER PROPERTY, OR BOTH THE RIGHT TO USE THAT PORTION OF THE SUBSURFACE OF SAID PROPERTY LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE OF SAID PROPERTY FOR ALL PURPOSES PERTAINING TO OR INCIDENT TO THE PRODUCTION OF, THE STORAGE OR CONSERVATION OF, OR EXPLORING FOR OIL, GAS, ASPHALTUM, AND OTHER HYDROCARBONS AND OTHER MINERALS WHETHER SIMILAR TO THOSE SPECIFIED OR NOT, OR ANY OF SAID SUBSTANCES BY MEANS OF ANY METHOD NOW KNOWN OR UNKNOWN, BUT NOT INCLUDING WITHIN THE EXCEPTION ANY RIGHT TO USE THE SURFACE OF SAID PROPERTY OR THE PORTION THEREOF LYING ABOVE A DEPTH OF 500 FEET BELOW THE SURFACE FOR THE AFORE SAID PURPOSES, AS EXCEPTED AND RESERVED BY STERN ON OCTOBER 4, 1956 IN BOOK 52482 PAGE 278 OFFICIAL RECORDS AND ON MARCH 6, 1959 IN BOOK D-390 PAGE 148 OFFICIAL RECORDS.

PARCEL AREA:
± 250,599 SQ. FT. ~ ± 5.75 ACRES



GRAPHIC SCALE



VICINITY MAP
NOT TO SCALE

DIG ALERT
DIAL TOLL FREE
1-800-227-2600

R. T. QUINN & ASSOCIATES, INC.

REVISIONS

CARDEN SCHOOL

CARDEN SCHOOL

2-85

EXHIBIT 5.75 ACRES PARCEL

Appendix E - Database Report

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Benchmark East Whittier Phase I ESA* *11537 Grovedale Drive* *Whittier CA 90604*
Project No:	*11974.001*
Report Type:	*Database Report*
Order No:	*20180402212*
Requested by:	*Leighton and Associates, Inc.*
Date Completed:	*April 4, 2018*

Environmental Risk Information Services
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

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Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

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Executive Summary

Property Information:

Project Property:		*Benchmark East Whittier Phase I ESA* *11537 Grovedale Drive Whittier CA 90604*
Project No:		*11974.001*
Coordinates:		
	Latitude:	*33.927091*
	Longitude:	*-117.989341*
	UTM Northing:	*3,754,512.67*
	UTM Easting:	*408,556.83*
	UTM Zone:	*UTM Zone 11S*
Elevation:		*254 FT*

Order Information:

Order No:	*20180402212*
Date Requested:	*April 2, 2018*
Requested by:	*Leighton and Associates, Inc.*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (Boundaries)*
Chain of Title & Lien Searches	*Environmental Lien Search Report*
City Directory Search	*2 Street Search*
ERIS Xplorer	*Data and Historical Layer Viewer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*PSR*
Topographic Map	*Topographic Maps*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	.5	0	0	0	0	-	0
SEMS	Y	.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	.5	0	0	0	0	-	0
CERCLIS	Y	.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	.5	0	0	0	0	-	0
RCRA LQG	Y	.25	0	0	0	-	-	0
RCRA SQG	Y	.25	0	0	1	-	-	1
RCRA CESQG	Y	.25	0	0	0	-	-	0
RCRA NON GEN	Y	.25	0	0	0	-	-	0
FED ENG	Y	.5	0	0	0	0	-	0
FED INST	Y	.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	.5	0	0	0	0	-	0
FEMA UST	Y	.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	0	0	0	2	2
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	.5	0	0	0	0	-	0
HWP	Y	1	0	0	0	0	0	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
LDS	Y	.5	0	0	0	0	-	0
LUST	Y	.5	0	0	1	5	-	6
DELISTED LST	Y	.5	0	0	0	1	-	1
UST	Y	.25	0	0	0	-	-	0
UST CLOSURE	Y	.5	0	0	0	0	-	0
HHSS	Y	.25	0	0	0	-	-	0
AST	Y	.25	0	0	0	-	-	0
DELISTED TNK	Y	.25	0	0	0	-	-	0
CERS TANK	Y	.25	0	0	0	-	-	0
DELISTED HAZ	Y	.5	0	0	0	0	-	0
LUR	Y	.5	0	0	0	0	-	0
HLUR	Y	.5	0	0	0	0	-	0
DEED	Y	.5	0	0	0	0	-	0
VCP	Y	.5	0	0	0	0	-	0
CLEANUP SITES	Y	.5	0	0	0	0	-	0
CERS HAZ	Y	.125	0	0	-	-	-	0
DELISTED CTNK	Y	.25	0	0	0	-	-	0
HIST TANK	Y	.25	0	0	0	-	-	0
Tribal								
INDIAN LUST	Y	.5	0	0	0	0	-	0
INDIAN UST	Y	.25	0	0	0	-	-	0
DELISTED ILST	Y	.5	0	0	0	0	-	0
DELISTED IUST	Y	.25	0	0	0	-	-	0
County								
DELISTED COUNTY	Y	.25	0	0	0	-	-	0
BURBANK CUPA	Y	.25	0	0	0	-	-	0
ELSEGUNDO UST	Y	.25	0	0	0	-	-	0
SANTAFESP UST	Y	.25	0	0	0	-	-	0
SANTAMON AST	Y	.25	0	0	0	-	-	0
SANTAMON CUPA	Y	.25	0	0	0	-	-	0
SANTAMON HAZ	Y	.25	0	0	0	-	-	0
SANTAMON HW	Y	.25	0	0	0	-	-	0
SANTA MONICA UST	Y	.25	0	0	0	-	-	0
TORRANCE UST	Y	.25	0	0	0	-	-	0
VERNON CUPA	Y	.25	0	0	0	-	-	0
VERNON UST	Y	.25	0	0	0	-	-	0
LA HMS	Y	.25	1	0	1	-	-	2
LA LONGB UST	Y	.25	0	0	0	-	-	0
LA SWF	Y	.5	0	0	0	0	-	0
ANAHEIM AST	Y	.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
ANAHEIM UST	Y	.25	0	0	0	-	-	0
ORANGE HW	Y	.5	0	0	0	0	-	0
ORANGE AST	Y	.25	0	0	0	-	-	0
ORANGE LOP	Y	.5	0	0	0	0	-	0
ORANGE UST	Y	.25	0	0	0	-	-	0
UST LA CITY	Y	.25	0	0	0	-	-	0
AST LA CITY	Y	.25	0	0	0	-	-	0
LA CITY HAZMAT	Y	.25	0	0	0	-	-	0

Additional Environmental Records

Federal

FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
HMIRS	Y	.125	0	0	-	-	-	0
NCDL	Y	PO	0	-	-	-	-	0
ODI	Y	.5	0	0	0	0	-	0
IODI	Y	.5	0	0	0	0	-	0
TSCA	Y	.125	0	0	-	-	-	0
HIST TSCA	Y	.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED FED DRY	Y	.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	.25	0	0	0	-	-	0
ALT FUELS	Y	.25	0	0	1	-	-	1
SUPERFUND ROD	Y	1	0	0	0	0	0	0
SSTS	Y	.25	0	0	0	-	-	0
PCB	Y	.5	0	0	0	0	-	0

State

INSP COMP ENF	Y	1	0	0	0	0	0	0
CDL	Y	.125	0	0	-	-	-	0
SCH	Y	1	0	0	0	0	0	0
CHMIRS	Y	PO	0	-	-	-	-	0
SWAT	Y	.5	0	0	0	0	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
HAZNET	Y	PO	2	2	-	-	-	4
SWRCB SWF	Y	.5	0	0	0	0	-	0
HWSS CLEANUP	Y	.5	0	0	0	0	-	0
DTSC HWF	Y	.5	0	0	0	0	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HIST CORTESE	Y	.5	0	0	0	0	-	0
CDO/CAO	Y	.5	0	0	0	0	-	0
DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED DRYC	Y	.25	0	0	0	-	-	0
WASTE DISCHG	Y	.25	0	0	0	-	-	0
EMISSIONS	Y	.25	0	0	0	-	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
ORANGE ICP	Y	.25	0	0	0	-	-	0
LA SML	Y	.5	0	0	0	0	-	0
Total:			3	2	4	6	2	17

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	LA HMS		11537 GROVEDALE DR WHITTIER CA 906043635	E	0.00 / 9.59	-3	19
1	HAZNET	LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR WHITTIER CA 906040000	E	0.00 / 9.59	-3	19
1	HAZNET	LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR WHITTIER CA 906040000	E	0.00 / 9.59	-3	27

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
2	HAZNET	LORENZO ORTEGA	11520 GROVEDALE DR WHITTIER CA 906043634	E	0.01 / 31.17	-3	27
3	HAZNET	GEMMA FERNANDEZ	16019 RICHVALE DR WHITTIER CA 906043548	NNW	0.01 / 47.65	-3	28
4	LUST	LA CO FIRE STATION #015	11460 S SANTA GERTRUDES AVE WHITTIER CA 90604	NW	0.23 / 1,216.94	-9	28
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603734947 | Completed - Case Closed | 2000-10-17 00:00:00				
5	ALT FUELS	WHITTIER CAMPUS	16200 Amber Valley Dr Whittier CA 90604	SE	0.24 / 1,284.45	5	29
5	LA HMS		16200 AMBER VALLEY DR WHITTIER CA 906044051	SE	0.24 / 1,284.45	5	29
5	RCRA SQG	LA COLLEGE OF CHIROPRACTIC	16200 E AMBER VALLEY DR WHITTIER CA 90609-8755	SE	0.24 / 1,284.45	5	30
6	LUST	ARCO #6149	15750 LEFFINGWELL RD WHITTIER CA 90604	NW	0.28 / 1,490.65	-10	32
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603702720 | Completed - Case Closed | 2016-04-11 00:00:00				
7	DELISTED LST	ARCO#6149	15750 Leffingwell Road Whittier CA 90604	NW	0.29 / 1,523.89	-11	34
8	LUST	CHEVRON #9-3408 (FORMER)	16170 LEFFINGWELL RD WHITTIER CA 90603	NNE	0.32 / 1,670.72	15	35
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603703517 | Completed - Case Closed | 1999-06-30 00:00:00				
9	LUST	MOBIL 18-E0R	15735 LEFFINGWELL ST E WHITTIER CA 90603	NW	0.33 / 1,752.27	-10	36
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603703756 | Completed - Case Closed | 2006-07-24 00:00:00				
10	LUST	JAY & ALLENS	16161 LEFFINGWELL RD WHITTIER CA 90603	NNE	0.36 / 1,877.68	15	38
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603704156 | Completed - Case Closed | 1990-01-12 00:00:00				
11	LUST	TOSCO - 76 STATION #5195 (FORMER)	16205 LEFFINGWELL RD E WHITTIER CA 90603	NE	0.36 / 1,911.86	15	39
			Global ID **|** ***Status*** **|** ***Status Date:*** T0603703719 | Open - Verification Monitoring | 2016-04-27 00:00:00				
12	ENVIROSTOR	WHITTIER GREENWAY TRAIL EAST EXTENSION	LEFFINGWELL CREEK CROSSING, EAST OF SCOTT	NW	0.73 / 3,867.67	-30	43

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
			AVENUE WHITTIER CA 90604				
13	ENVIROSTOR	UPRR SITE ADJACENT TO PROPOSED GREENWAY TRAIL EXTENSION	LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE WHITTIER CA 90604	NW	0.75 / 3,978.63	-31	45

Executive Summary: Summary by Data Source

Standard

Federal

RCRA SQG - RCRA Small Quantity Generators List

A search of the RCRA SQG database, dated Jan 24, 2018 has found that there are 1 RCRA SQG site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
LA COLLEGE OF CHIROPRACTIC	16200 E AMBER VALLEY DR WHITTIER CA 90609-8755	SE	0.24 / 1,284.45	5

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Dec 21, 2017 has found that there are 2 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
WHITTIER GREENWAY TRAIL EAST EXTENSION	LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE WHITTIER CA 90604	NW	0.73 / 3,867.67	12
UPRR SITE ADJACENT TO PROPOSED GREENWAY TRAIL EXTENSION	LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE WHITTIER CA 90604	NW	0.75 / 3,978.63	13

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Dec 27, 2017 has found that there are 6 LUST site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
CHEVRON #9-3408 (FORMER)	16170 LEFFINGWELL RD WHITTIER CA 90603	NNE	0.32 / 1,670.72	8
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603703517 | Completed - Case Closed | 1999-06-30 00:00:00*			
JAY & ALLENS	16161 LEFFINGWELL RD WHITTIER CA 90603	NNE	0.36 / 1,877.68	10
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603704156 | Completed - Case Closed | 1990-01-12 00:00:00*			
TOSCO - 76 STATION #5195 (FORMER)	16205 LEFFINGWELL RD E WHITTIER CA 90603	NE	0.36 / 1,911.86	11
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603703719 | Open - Verification Monitoring | 2016-04-27 00:00:00*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LA CO FIRE STATION #015	11460 S SANTA GERTRUDES AVE WHITTIER CA 90604	NW	0.23 / 1,216.94	4
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603734947 | Completed - Case Closed | 2000-10-17 00:00:00*			
ARCO #6149	15750 LEFFINGWELL RD WHITTIER CA 90604	NW	0.28 / 1,490.65	6
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603702720 | Completed - Case Closed | 2016-04-11 00:00:00*			
MOBIL 18-E0R	15735 LEFFINGWELL ST E WHITTIER CA 90603	NW	0.33 / 1,752.27	9
	Global ID **|** ***Status*** **|** ***Status Date***: *T0603703756 | Completed - Case Closed | 2006-07-24 00:00:00*			

DELISTED LST - Delisted Leaking Storage Tanks

A search of the DELISTED LST database, dated Jan 31, 2018 has found that there are 1 DELISTED LST site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ARCO#6149	15750 Leffingwell Road Whittier CA 90604	NW	0.29 / 1,523.89	7

County

LA HMS - Los Angeles County HMS List

A search of the LA HMS database, dated Jan 25, 2018 has found that there are 2 LA HMS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	16200 AMBER VALLEY DR WHITTIER CA 906044051	SE	0.24 / 1,284.45	5

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	11537 GROVEDALE DR WHITTIER CA 906043635	E	0.00 / 9.59	1

Non Standard

Federal

ALT FUELS - Alternative Fueling Stations

A search of the ALT FUELS database, dated Feb 6, 2018 has found that there are 1 ALT FUELS site(s) within approximately 0.25 miles of the project property.

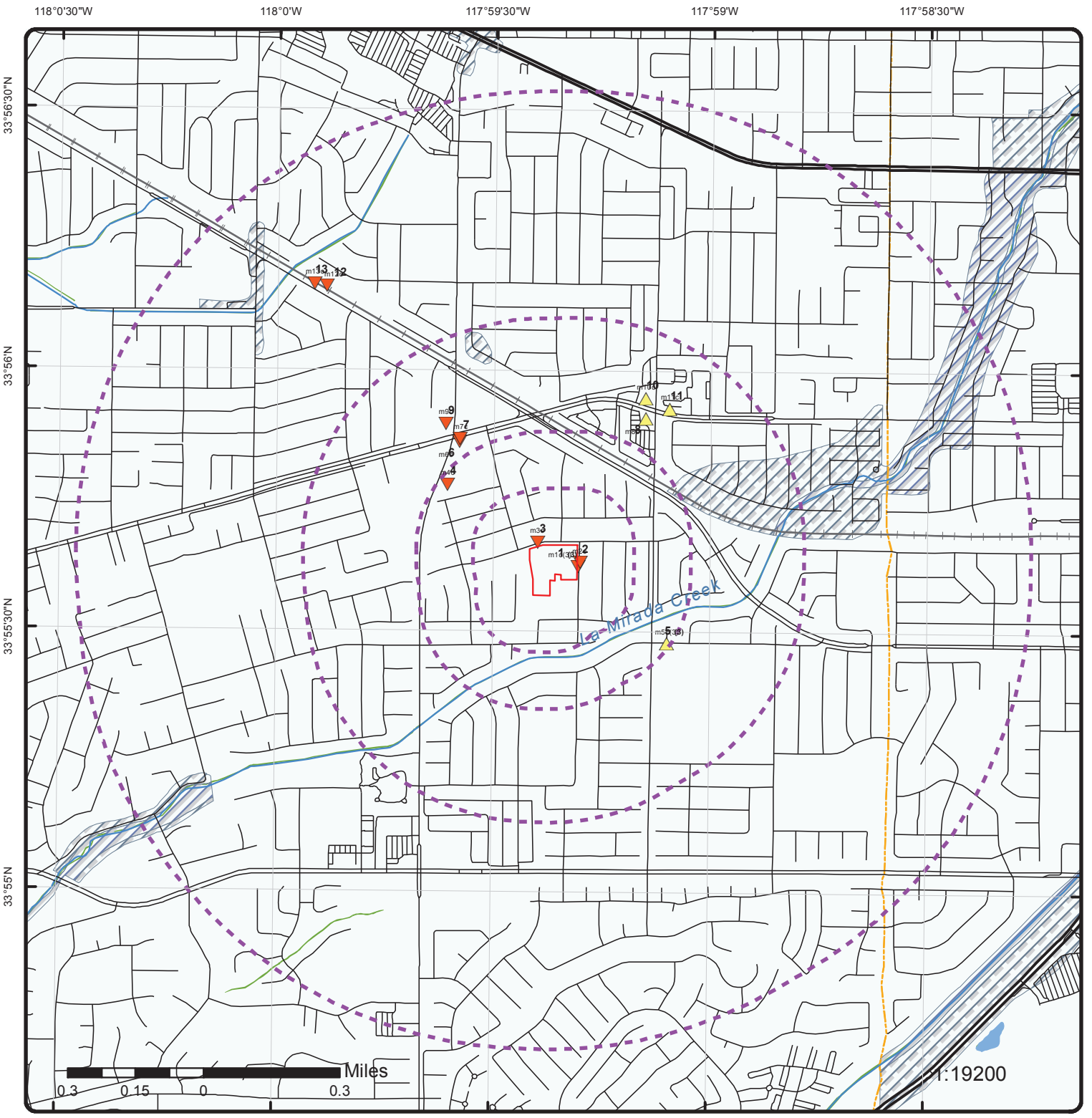
Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
WHITTIER CAMPUS	16200 Amber Valley Dr Whittier CA 90604	SE	0.24 / 1,284.45	5

State

HAZNET - Hazardous Waste Manifest Data

A search of the HAZNET database, dated Oct 24, 2016 has found that there are 4 HAZNET site(s) within approximately 0.02 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR WHITTIER CA 906040000	E	0.00 / 9.59	1
LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR WHITTIER CA 906040000	E	0.00 / 9.59	1
LORENZO ORTEGA	11520 GROVEDALE DR WHITTIER CA 906043634	E	0.01 / 31.17	2
GEMMA FERNANDEZ	16019 RICHVALE DR WHITTIER CA 906043548	NNW	0.01 / 47.65	3



Map : 1 Mile Radius

Order No: 20180402212

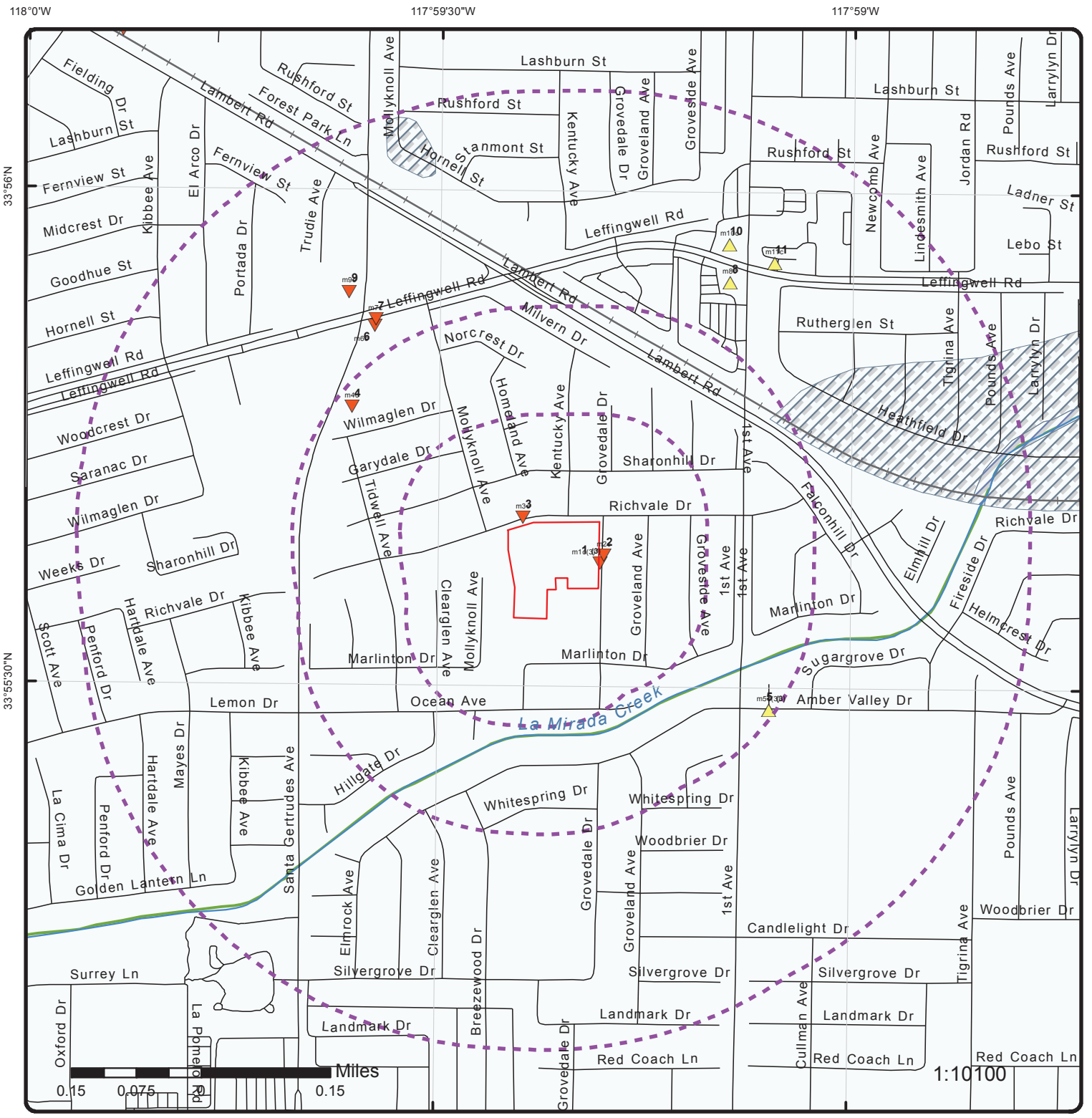
Address: 11537 Grovedale Drive, Whittier, CA, 90604

ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- **Buffer Outline**
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- County Boundary
- Rails
- Major Highways
- Major Highways Ramps
- Major Roads
- Major Roads Ramps
- Secondary Roads
- Secondary Roads Ramps
- Local Roads and Ramps
- State Boundary
- National Priority List Sites
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- State Brownfield Sites
- State Brownfield Areas
- State Superfund Areas:Dept. of Defense
- State Superfund Areas:NPL
- WQARF Areas
- Federal Lands: Dept. of Defense (owned/administered areas)

Source: © 2016 ESRI

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Map : 0.5 Mile Radius

Order No: 20180402212

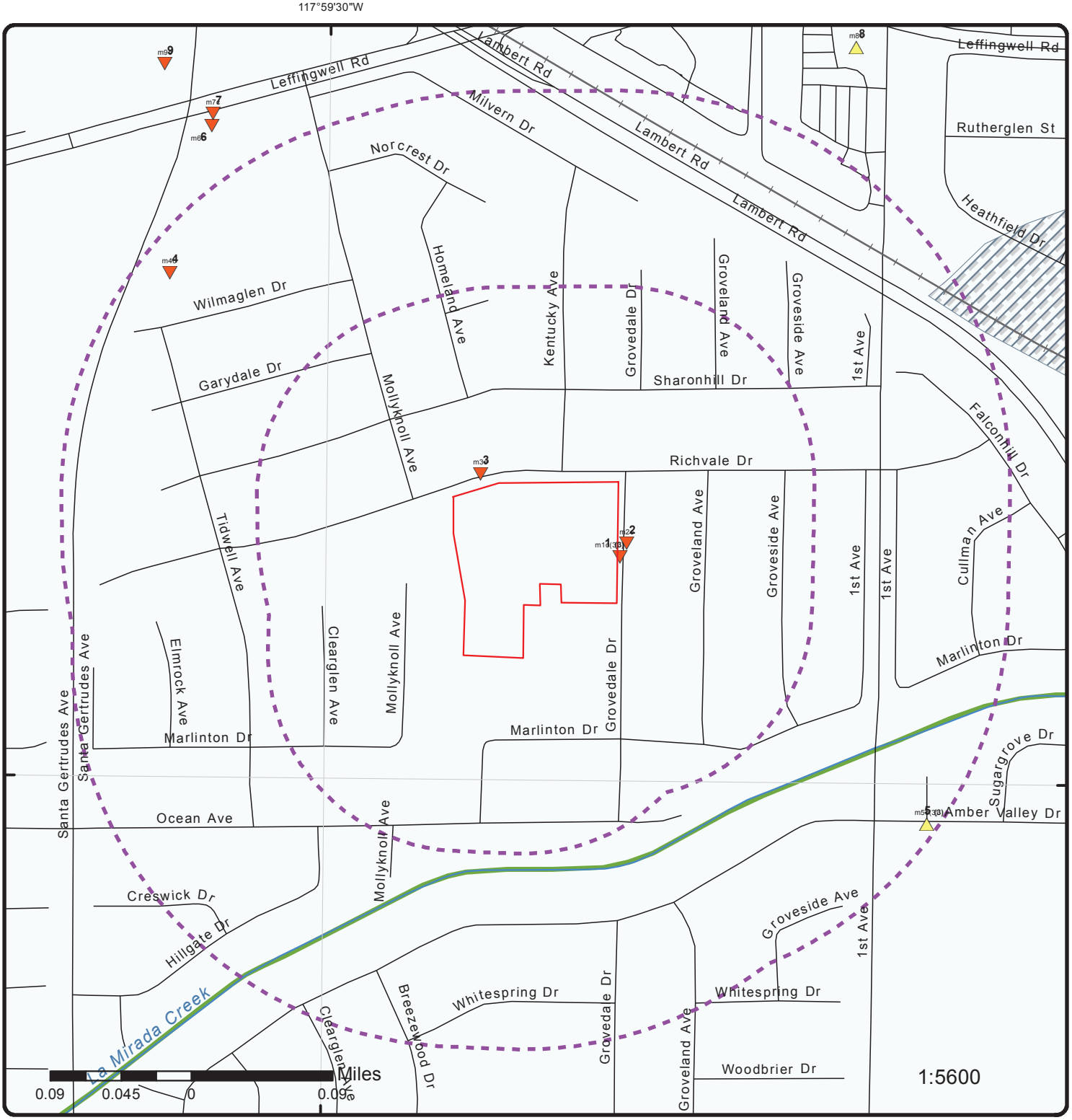
Address: 11537 Grovedale Drive, Whittier, CA, 90604

ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- **Buffer Outline**
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- County Boundary
- Rails
- Major Highways
- Major Highways Ramps
- Major Roads
- Major Roads Ramps
- Secondary Roads
- Secondary Roads Ramps
- Local Roads and Ramps
- State Boundary
- National Priority List Sites
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- State Brownfield Sites
- State Brownfield Areas
- State Superfund Areas:Dept. of Defense
- State Superfund Areas:NPL
- WQARF Areas
- Federal Lands: Dept. of Defense (owned/administered areas)

Source: © 2016 ESRI

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Map : 0.25 Mile Radius

Order No: 20180402212

Address: 11537 Grovedale Drive, Whittier, CA, 90604

ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- **Buffer Outline**
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- County Boundary
- Rails
- Major Highways
- Major Highways Ramps
- Major Roads
- Major Roads Ramps
- Secondary Roads
- Secondary Roads Ramps
- Local Roads and Ramps
- State Boundary
- National Priority List Sites
- National Wetland
- Indian Reserve Land
- Historic Fill
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- State Brownfield Sites
- State Brownfield Areas
- State Superfund Areas:Dept. of Defense
- State Superfund Areas:NPL
- WQARF Areas
- Federal Lands: Dept. of Defense (owned/administered areas)

Source: © 2016 ESRI

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Aerial (2016)

Order No: 20180402212

Address: 11537 Grovedale Drive, Whittier, CA, 90604

Source: ESRI World Imagery

ENVIRONMENTAL RISK INFORMATION SERVICES

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Topographic Map (2015)

Address: 11537 Grovedale Drive, Whittier, CA, 90604

Quadrangle(s): Whittier, CA; La Habra, CA;

Source: USGS Topographic Map

Order No: 20180402212

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 3	E	0.00 / 9.59	251.25 / -3	11537 GROVEDALE DR WHITTIER CA 906043635	LA HMS

Site No: 010099
Area: 1

--Details--
File No: 009964
File Name: LOWELL JOINT SCHOOL DISTRICT
Status Code: REM
Status Desc: Equipment Removed
Permit No: 00001345T
Permit Category: T
Permit Category Desc: Underground Storage Tank
Permit Status Code: REM
Permit Status Desc: Equipment Removed
Permit Type: 0
Permit Type Desc: Underground Storage Tank Operating Permit

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	2 of 3	E	0.00 / 9.59	251.25 / -3	LOWELL JOINT SCHOOL DISTRICT 11537 GROVEDALE DR WHITTIER CA 906040000	HAZNET

SIC Code: 8211
NAICS Code: 61111
EPA ID: CAL000195667
Create Date: 11/25/1998
Fac Act Ind: Yes
Inact Date:
County Code: 19
County Name: Los Angeles
Mail Name:
Mailing Addr 1: 11537 GROVEDALE DR
Mailing Addr 2:
Owner Fax: 5629029252

Mailing City: WHITTIER
Mailing State: CA
Mailing Zip: 906040000
Region Code: 3
Owner Name: LOWELL JOINT SCHOOL DISTRICT
Owner Addr 1: 11537 GROVEDALE DR
Owner Addr 2:
Owner City: WHITTIER
Owner State: CA
Owner Zip: 906040000
Owner Phone: 5629479589

Contact Information
-- --
Contact Name: ANTHONY COLLASO
Street Address 1: 11537 GROVEDALE DR
Street Address 2:
City: WHITTIER
State: CA
Zip: 90604
Phone: 5629024290
-- --
-- --
Tanner Information
-- --
Generator EPA ID: CAL000195667
Generator County Code: 19
Generator County: Los Angeles
TSD EPA ID: CAD981402522
TSD County Code: 15
TSD County: Kern

State Waste Code:	541
State Waste Code Desc.:	Photochemicals/photoprocessing waste
Method Code:	R01
Method Description:	Recycler
Tons:	0.08757
Year:	2006
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAT000613893
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	134
State Waste Code Desc.:	Aqueous solution with total organic residues less than 10 percent
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.084
Year:	2006
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	TXD077603371
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	212
State Waste Code Desc.:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.14
Year:	2006
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	TXD077603371
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	213
State Waste Code Desc.:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.865
Year:	2007
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD980884183
TSD County Code:	34
TSD County:	Sacramento
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.01
Year:	2008
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD980884183
TSD County Code:	34
TSD County:	Sacramento
State Waste Code:	291
State Waste Code Desc.:	Latex waste

Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.35425
Year:	2008
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD980884183
TSD County Code:	34
TSD County:	Sacramento
State Waste Code:	343
State Waste Code Desc.:	Unspecified organic liquid mixture
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.17
Year:	2008
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	TXD077603371
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	213
State Waste Code Desc.:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.245
Year:	2008
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD980884183
TSD County Code:	34
TSD County:	Sacramento
State Waste Code:	181
State Waste Code Desc.:	Other inorganic solid waste
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.03
Year:	2009
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD980884183
TSD County Code:	34
TSD County:	Sacramento
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.05
Year:	2009
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	134
State Waste Code Desc.:	Aqueous solution with total organic residues less than 10 percent

Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	1.092
Year:	2009
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD008252405
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.198
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	221
State Waste Code Desc.:	Waste oil and mixed oil
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.342
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.2
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	181
State Waste Code Desc.:	Other inorganic solid waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.01
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	791
State Waste Code Desc.:	Liquids with pH <= 2

Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.01251
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	481
State Waste Code Desc.:	Tetraethyl lead sludge
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.1
Year:	2010
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD008252405
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.054
Year:	2011
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD981696420
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	221
State Waste Code Desc.:	Waste oil and mixed oil
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.456
Year:	2011
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	223
State Waste Code Desc.:	Unspecified oil-containing waste
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.06255
Year:	2011
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste

Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.5
Year:	2011
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD008252405
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.0108
Year:	2012
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.005
Year:	2012
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.2
Year:	2012
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	291
State Waste Code Desc.:	Latex waste
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.1251
Year:	2012
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD008252405
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture

Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.036
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	122
State Waste Code Desc.:	Alkaline solution without metals pH >= 12.5
Method Code:	H141
Method Description:	STORAGE, BULKING, AND/OR TRANSFER OFF SITE--NO TREATMENT/REOVERY (H010-H129) OR (H131-H135)
Tons:	0.02085
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.1
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	461
State Waste Code Desc.:	Paint sludge
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.05
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	352
State Waste Code Desc.:	Other organic solids
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.1251
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	181
State Waste Code Desc.:	Other inorganic solid waste

Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.15
Year:	2013
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	214
State Waste Code Desc.:	Unspecified solvent mixture
Method Code:	H061
Method Description:	FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE
Tons:	0.018
Year:	2015
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County Code:	19
TSD County:	Los Angeles
State Waste Code:	343
State Waste Code Desc.:	Unspecified organic liquid mixture
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.187
Year:	2015
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	122
State Waste Code Desc.:	Alkaline solution without metals pH >= 12.5
Method Code:	H039
Method Description:	OTHER RECOVERY OF RECLAMATION FOR REUSE INCLUDING ACID REGENERATION, ORGANICS RECOVERY ECT
Tons:	0.02085
Year:	2015
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.2
Year:	2015
--	--
Generator EPA ID:	CAL000195667
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County Code:	99
TSD County:	Unknown
State Waste Code:	181
State Waste Code Desc.:	Other inorganic solid waste

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.05
Year:	2015
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	3 of 3	E	0.00 / 9.59	251.25 / -3	LOWELL JOINT SCHOOL DISTRICT 11537 GROVEDALE DR WHITTIER CA 906040000	HAZNET

SIC Code:		**Mailing City:**	WHITTIER
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC001172936	**Mailing Zip:**	906040000
Create Date:	6/24/1998	**Region Code:**	3
Fac Act Ind:	No	**Owner Name:**	LOWELL JOINT SCH DIST
Inact Date:	10/25/2000	**Owner Addr 1:**	11537 GROVEDALE DR
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	WHITTIER
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	11537 GROVEDALE DR	**Owner Zip:**	906040000
Mailing Addr 2:		**Owner Phone:**	5629479589
Owner Fax:			

Contact Information

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Contact Name:	BOB LAMAR/MAINT
Street Address 1:	11537 GROVEDALE DR
Street Address 2:	
City:	WHITTIER
State:	CA
Zip:	906040000
Phone:	2139430211
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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of 1	E	0.01 / 31.17	250.68 / -3	LORENZO ORTEGA 11520 GROVEDALE DR WHITTIER CA 906043634	HAZNET

SIC Code:		**Mailing City:**	WHITTIER
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002810194	**Mailing Zip:**	906043634
Create Date:		**Region Code:**	
Fac Act Ind:		**Owner Name:**	
Inact Date:		**Owner Addr 1:**	
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	
Mail Name:		**Owner State:**	
Mailing Addr 1:	11520 GROVEDALE DR	**Owner Zip:**	
Mailing Addr 2:		**Owner Phone:**	
Owner Fax:			

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Additional Contact Information

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Contact Name:	LORENZO ORTEGA
Phone:	5629439941
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Tanner Information

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Generator EPA ID:	CAC002810194
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County Code:	19

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

TSD County:	Los Angeles
State Waste Code:	151
State Waste Code Desc.:	Asbestos containing waste
Method Code:	H132
Method Description:	LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
Tons:	0.23
Year:	2015
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Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 1	NNW	0.01 / 47.65	250.59 / -3	GEMMA FERNANDEZ 16019 RICHVALE DR WHITTIER CA 906043548	HAZNET

SIC Code:		**Mailing City:**	WHITTIER
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002794879	**Mailing Zip:**	906043548
Create Date:	11/24/2014	**Region Code:**	3
Fac Act Ind:	No	**Owner Name:**	GEMMA FERNANDEZ
Inact Date:	2/23/2015	**Owner Addr 1:**	16019 RICHVALE DR
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	WHITTIER
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	16019 RICHVALE DR	**Owner Zip:**	906043548
Mailing Addr 2:		**Owner Phone:**	5629479766
Owner Fax:			

Contact Information

--	--
Contact Name:	GEMMA FERNANDEZ
Street Address 1:	16019 RICHVALE DR
Street Address 2:	
City:	WHITTIER
State:	CA
Zip:	906043548
Phone:	5629479766
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 1	NW	0.23 / 1,216.94	245.23 / -9	LA CO FIRE STATION #015 11460 S SANTA GERTRUDES AVE WHITTIER CA 90604	LUST

Global ID:	T0603734947	**CUF Case:**	NO
Case Type:	LUST Cleanup Site	**Begin Date:**	1996-06-17 00:00:00
Status:	Completed - Case Closed	**How Discovered:**	Tank Closure
Status Date:	2000-10-17 00:00:00	**Stop Method:**	Close and Remove Tank
RB Case No:		**County:**	Los Angeles
LOC Case No:	012609-012776	**Latitude:**	33.929671
Lead Agency:	LOS ANGELES COUNTY	**Longitude:**	-117.993396
Case Worker:	TS	**File Location:**	
Local Agency:	LOS ANGELES COUNTY		
Potential Media Of Concern:	Heating Oil / Fuel Oil		
Potential Media Affected:	Soil		
How Discovered Description:			
Stop Description:			
Cal Water Watershed Name:	San Gabriel River - Lower San Gabriel - Central (Split) (405.15)		
DWR Groundwater Subbasin Name:	Coastal Plain Of Los Angeles - Central (4-11.04)		
Site History:			

Status History

Status:	Completed - Case Closed	**Status Date:**	2000-10-17 00:00:00
Status:	Open - Site Assessment	**Status Date:**	2000-10-16 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Status: Open - Case Begin Date **Status Date:** 1996-06-17 00:00:00

Activities

Action Type: Other
Action: Leak Reported
Date: 1996-06-17 00:00:00

Action Type: Other
Action: Leak Discovery
Date: 1996-06-17 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: TIM SMITH
Organization Name: LOS ANGELES COUNTY
Address: 900 S. FREMONT AVE.
City: ALHAMBRA
Email: tsmith@dpw.lacounty.gov
Phone No:

Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone No:

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5 | **1 of 3** | **SE** | **0.24 / 1,284.45** | **258.98 / 5** | **WHITTIER CAMPUS**
16200 Amber Valley Dr
Whittier CA 90604 | **ALT FUELS**

ID: 67677
Fuel Type Code: ELEC: Electric
Status Code: E
Status Desc: Open: The station is open.
Federal Agency ID:
Fed Agency Name:
Plus4:
Station Phone: 888-758-4389
Expected Date:
Open Date:
BD Blends:
NG Fill Type Code:
NG Fill Type Desc:
NG PSI:
Cards Accepted:
Cards Accepted Desc:
Hydrogen Status Link:
E85 Blender Pump:
E85 Blender Pump Desc:
EV Lvl1 EVSE No:
EV Lvl2 EVSE No: 10
EV DC Fast Count:
EV Other Info:
EV Network: ChargePoint Network
EV Network Web: http://www.chargepoint.com/
Latitude: 33.924648
Longitude: -117.983316
Dt Last Confirmed: 2018-01-04
Updated at: 2018-01-09 05:45:44 UTC
Owner Type Code:
Owner Type Desc:
NG Vehicle Class:
NG V Class Desc:
EV Connector Types: J1772
EV Connector Type Desc: J1772-J1772 (Level 2)
Geocode Status: 200-9
Geocode Status Desc: Premise (building name, property name, shopping center, etc.) level accuracy.
Access Days Time: 24 hours daily
Groups with Access Code: Public
Group With Access Desc: Publicly available to all customers.
LPG Primary:
LPG Primary Desc:
Intersection Directions:

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5 | **2 of 3** | **SE** | **0.24 / 1,284.45** | **258.98 / 5** | **16200 AMBER VALLEY DR**
WHITTIER CA 906044051 | **LA HMS**

Site No: 033717
Area: 1

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

--Details--

File No:	057548
File Name:	SO CAL UNIV OF HEALTH SCIENCE
Status Code:	REM
Status Desc:	Equipment Removed
Permit No:	000731968
Permit Category:	I
Permit Category Desc:	Industrial Waste Permit
Permit Status Code:	REM
Permit Status Desc:	Equipment Removed
Permit Type:	01
Permit Type Desc:	Operating Industrial Waste Permit - Local Sewer

File No:	060001
File Name:	SO CAL UNIV OF HEALTH SCIENCES
Status Code:	PERM
Status Desc:	Equipment Permitted
Permit No:	000844393
Permit Category:	I
Permit Category Desc:	Industrial Waste Permit
Permit Status Code:	PERM
Permit Status Desc:	Equipment Permitted
Permit Type:	S4
Permit Type Desc:	Operating Industrial Waste Permit - Stormwater BMPs

File No:	057547
File Name:	SO CAL UNIV OF HEALTH SCIENCE
Status Code:	REM
Status Desc:	Equipment Removed
Permit No:	000731964
Permit Category:	T
Permit Category Desc:	Underground Storage Tank
Permit Status Code:	REM
Permit Status Desc:	Equipment Removed
Permit Type:	0
Permit Type Desc:	Underground Storage Tank Operating Permit

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	3 of 3	SE	0.24 / 1,284.45	258.98 / 5	LA COLLEGE OF CHIROPRACTIC 16200 E AMBER VALLEY DR WHITTIER CA 90609-8755	RCRA SQG

EPA Handler ID:	CAD983638354
Land Type Code:	P
Land Type Desc:	Private
Federal Waste Generator Code:	2
Gen Status Univ:	SQG
Gen Status Univ Desc:	Small Quantity Generator
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Recycler Activity:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Inject Activity:	No
Receives Waste from Offsite:	No
TSD Type:	-----
TSD Activity:	No
Corrective Action Univ:	No
Action has been Imposed:	No
Action under 3004 (U)/(V):	No
Institutional Control Indicator:	N
Used Oil Transporter:	
Used Oil Transfer Facility:	
Used Oil Processor:	

Used Oil Refiner:	
Used Oil Burner:	
Used Oil Market Burner:	
Used Oil Spec Marketer:	
Activity Location:	CA
County Code:	CA037
County Name:	LOS ANGELES
Contact Name:	GARY D SCHULTZ
Contact Phone No and Exten:	213-947-8755
Contact Email:	
Contact Address:	16200 E AMBER VALLEY DR , WHITTIER , CA, 90609-8755 , US
Mailing Address:	16200 E AMBER VALLEY DR , WHITTIER , CA, 90609-8755 , US

Violation/Evaluation Summary

Note:	As of Jan 24 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Details

Source Type:	N	**Used Oil Transporter:**	No
Receive Date:	19920227	**UO Transfer Fac:**	No
Non Notifier:		**Used Oil Processor:**	No
Acknowledge Flag:		**Used Oil Refiner:**	No
Acknowledge Date:	19920716	**Used Oil Burner:**	No
Accessibility:		**UO Market Burner:**	No
Land Type:	P	**UO Spec Marketer:**	No
Fed Waste Gen Own:	HQ	**Current Site Name:**	LA COLLEGE OF CHIROPRACTIC
Fed Waste Gen Cd:	2	**Location Street No:**	
Fed Waste Gen Desc:	Small Quantity Generator	**Location Street 1:**	16200 E AMBER VALLEY DR
ST Waste Gen Own:		**Location Street 2:**	
State Waste Gen Cd:		**Location City:**	WHITTIER
Short Term Gen:	No	**Location State:**	CA
Importer Activity:	No	**Location Zip Code:**	90609-8755
Mixed Waste Gen:	No	**County Code:**	CA037
Transporter:	No	**State District:**	
Transfer Facility:	No	**Mailing Street No:**	
TSD Activity:	No	**Mailing Street 1:**	16200 E AMBER VALLEY DR
Recycler Activity:	No	**Mailing Street 2:**	
Onsite Burn Exempt:	No	**Mailing City:**	WHITTIER
Furnace Exemption:	No	**Mailing State:**	CA
Underground Inject:	No	**Mailing Zip Code:**	90609-8755
Off Site Receipt:	No	**Mailing Country:**	US
Waste Dest Fac:	No	**Contact First Name:**	GARY D
Subpart K College:		**Contact Middle Initial:**	
Subpart K Hospital:		**Contact Last Name:**	SCHULTZ
Subpart K Non Profit:		**Contact Street No:**	
Subpart K Withdraw:		**Contact Street 1:**	16200 E AMBER VALLEY DR
Include Ntnl Rprt:		**Contact Street 2:**	
Reporting Cycle:		**Contact City:**	WHITTIER
LQHUW:	No	**Contact State:**	CA
Trader Importer:		**Contact Zip:**	90609-8755
Trader Exporter:		**Contact Country:**	US
Slab Importer:		**Contact Phone:**	213-947-8755
Slab Exporter:		**Contact Phone Ext:**	
Current Record:	Yes	**Contact Fax:**	
Location Country:	US	**Contact Email Addr:**	
State District Owner:		**Contact Title:**	

NAICS Details

Source Type:	N	**NAICS Active Status:**	Yes
NAICS Cd Owner:	HQ	**NAICS Cycle:**	2002
NAICS Code:	451211		
NAICS Description:	BOOK STORES		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner/Operator Details

Owner/Operator Ind:	CO	***Country:***	
Name:	LA COLLEGE OF CHIROPRACTIC	***Zip Code:***	90609
Street No:		***Phone:***	213-947-8755
Street 1:	16200 E AMBER VALLEY DR	***Type:***	P
Street 2:		***Date Became Current:***	
City:	WHITTIER	***Date Ended Current:***	
State:	CA		
Source Type:	N		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	1 of 1	NW	0.28 / 1,490.65	243.90 / -10	ARCO #6149 15750 LEFFINGWELL RD WHITTIER CA 90604	LUST

Global ID:	T0603702720	***CUF Case:***	YES
Case Type:	LUST Cleanup Site	***Begin Date:***	1990-05-02 00:00:00
Status:	Completed - Case Closed	***How Discovered:***	
Status Date:	2016-04-11 00:00:00	***Stop Method:***	
RB Case No:	I-00587A	***County:***	Los Angeles
LOC Case No:		***Latitude:***	33.9310352
Lead Agency:	LOS ANGELES RWQCB (REGION 4)	***Longitude:***	-117.9929412
Case Worker:	NC	***File Location:***	Regional Board
Local Agency:			
Potential Media Of Concern:	Gasoline		
Potential Media Affected:	Aquifer used for drinking water supply		
How Discovered Description:			
Stop Description:			
Cal Water Watershed Name:	San Gabriel River - Lower San Gabriel - Central (Split) (405.15)		
DWR Groundwater Subbasin Name:	Coastal Plain Of Los Angeles - Central (4-11.04)		
Site History:			

Status History

Status:	Open - Site Assessment	***Status Date:***	1992-10-16 00:00:00
Status:	Open - Eligible for Closure	***Status Date:***	2016-01-13 00:00:00
Status:	Open - Reopen Case	***Status Date:***	2005-01-01 00:00:00
Status:	Open - Case Begin Date	***Status Date:***	1990-05-02 00:00:00
Status:	Open - Site Assessment	***Status Date:***	1991-11-20 00:00:00
Status:	Completed - Case Closed	***Status Date:***	1997-01-03 00:00:00
Status:	Open - Remediation	***Status Date:***	1996-07-30 00:00:00
Status:	Completed - Case Closed	***Status Date:***	2016-04-11 00:00:00
Status:	Open - Site Assessment	***Status Date:***	2011-04-26 00:00:00
Status:	Open - Assessment & Interim Remedial Action	***Status Date:***	2011-11-29 00:00:00
Status:	Open - Site Assessment	***Status Date:***	2006-12-20 00:00:00

Activities

Action Type:	RESPONSE
Action:	Well Destruction Report - Regulator Responded
Date:	2016-04-11 00:00:00
Action Type:	RESPONSE

Action: Monitoring Report - Quarterly
Date: 2008-10-15 00:00:00

Action Type: RESPONSE
Action: Interim Remedial Action Plan
Date: 2011-07-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2006-06-12 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2015-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-01-15 00:00:00

Action Type: RESPONSE
Action: Request for Closure - Regulator Responded
Date: 2014-03-21 00:00:00

Action Type: ENFORCEMENT
Action: State Water Board - Closure Order
Date: 2015-07-17 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2011-01-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2011-08-09 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2014-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2009-04-15 00:00:00

Action Type: ENFORCEMENT
Action: State Water Board - Closure Order
Date: 2016-01-13 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2013-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2013-01-15 00:00:00

Action Type: ENFORCEMENT
Action: Notification - Public Notice of Case Closure
Date: 2015-07-17 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1990-05-02 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Date: 2011-04-26 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2009-06-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2012-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-07-15 00:00:00

Action Type: RESPONSE
Action: Soil and Water Investigation Report
Date: 2012-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2009-01-15 00:00:00

Action Type: ENFORCEMENT
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)
Date: 2015-07-03 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2011-07-15 00:00:00

Action Type: RESPONSE
Action: Well Installation Workplan
Date: 2011-01-15 00:00:00

Action Type: RESPONSE
Action: Soil and Water Investigation Workplan
Date: 2006-08-15 00:00:00

Action Type: ENFORCEMENT
Action: Closure/No Further Action Letter - #01/26/2017
Date: 2017-01-26 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2012-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-04-15 00:00:00

Contacts

Contact Type: Regional Board Caseworker
Contact Name: NOMAN CHOWDHURY
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: nchowdhury@waterboards.ca.gov
Phone No: 2135766704

7	1 of 1	NW	0.29 / 1,523.89	242.57 / -11	**ARCO#6149** **15750 Leffingwell Road** **Whittier CA 90604**	**DELISTED LST**

Global ID: 10715
Case Type:
CUF Case:
Begin Date:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Status: ***How Discovered:***
Status Date: ***Stop Method:***
RB Case No: ***County:***
Loc Case No: ***Latitude:***
Case Worker: ***Longitude:***
Local Agency: ***Site Name:*** ARCO#6149
Claim Case No: Claim No. 10715 ***How Discover Desc:***
Contam of Concern: ***Stop Description:***
Comments Deadline: 2015/10/05
Lead Agency:
File Location:
Cal Water Watershed Name:
DWR Groundwater Sub Basin:
Proposed UST Closure: UST Case Closure Proposed For Consideration by the Executive Director
Orig Address: 15750 Leffingwell Road, Whittier, CA 90604
Potential Media Affected:
Original Source: USTC
Record Date: 10-SEP-2015

8	1 of 1	NNE	0.32 / 1,670.72	268.58 / 15	**CHEVRON #9-3408 (FORMER)** **16170 LEFFINGWELL RD** **WHITTIER CA 90603**	LUST

Global ID: T0603703517 ***CUF Case:*** YES
Case Type: LUST Cleanup Site ***Begin Date:*** 1987-05-22 00:00:00
Status: Completed - Case Closed ***How Discovered:*** Tank Tightness Test
Status Date: 1999-06-30 00:00:00 ***Stop Method:***
RB Case No: I-09901 ***County:*** Los Angeles
LOC Case No: ***Latitude:*** 33.931821
Lead Agency: LOS ANGELES RWQCB (REGION 4) ***Longitude:*** -117.985785
Case Worker: JFL ***File Location:***
Local Agency: LOS ANGELES COUNTY
Potential Media Of Concern: Gasoline
Potential Media Affected: Aquifer used for drinking water supply
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Lower San Gabriel - Central (Split) (405.15)
DWR Groundwater Subbasin Name: Coastal Plain Of Los Angeles - Central (4-11.04)
Site History:

Status History

Status:	Open - Site Assessment	***Status Date:***	1988-04-01 00:00:00
Status:	Completed - Case Closed	***Status Date:***	1999-06-30 00:00:00
Status:	Open - Site Assessment	***Status Date:***	1993-01-14 00:00:00
Status:	Open - Case Begin Date	***Status Date:***	1987-05-22 00:00:00
Status:	Open - Remediation	***Status Date:***	1995-10-12 00:00:00

Activities

Action Type: Other
Action: Leak Discovery
Date: 1987-05-22 00:00:00

Action Type: ENFORCEMENT
Action: * Historical Enforcement
Date: 1999-04-05 00:00:00

Action Type: Other

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action: Leak Reported
Date: 1987-05-22 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone No: 6264583507

Contact Type: Regional Board Caseworker
Contact Name: JOE F. LUERA
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH STREET, SUITE 200
City: LOS ANGELES
Email: joe.luera@waterboards.ca.gov
Phone No:

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9 | **1 of 1** | **NW** | **0.33 / 1,752.27** | **243.89 / -10** | **MOBIL 18-E0R**
15735 LEFFINGWELL ST E
WHITTIER CA 90603 | **LUST**

Global ID: T0603703756
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 2006-07-24 00:00:00
RB Case No: I-11163
LOC Case No:
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: NC
Local Agency: LOS ANGELES COUNTY
CUF Case: YES
Begin Date: 1988-05-26 00:00:00
How Discovered: Tank Closure
Stop Method:
County: Los Angeles
Latitude: 33.931604739
Longitude: -117.993471211
File Location:
Potential Media Of Concern: Gasoline
Potential Media Affected: Aquifer used for drinking water supply
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Lower San Gabriel - Central (Split) (405.15)
DWR Groundwater Subbasin Name: Coastal Plain Of Los Angeles - Central (4-11.04)
Site History:

Status History

Status:	Status Date:
Completed - Case Closed	2006-07-24 00:00:00
Open - Site Assessment	1997-02-04 00:00:00
Open - Site Assessment	1999-06-10 00:00:00
Open - Case Begin Date	1988-05-26 00:00:00
Open - Remediation	1997-02-04 00:00:00
Open - Verification Monitoring	1988-06-10 00:00:00

Activities

Action Type: REMEDIATION
Action: Excavation
Date: 1988-05-01 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-07-15 00:00:00

Action Type: RESPONSE
Action: Request for Closure
Date: 2005-07-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 1997-02-04 00:00:00

Action Type: ENFORCEMENT
Action: Site Visit / Inspection / Sampling
Date: 2006-05-19 00:00:00

Action Type: Other
Action: Leak Stopped
Date: 1988-05-26 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2006-07-15 00:00:00

Action Type: REMEDIATION
Action: Pump & Treat (P&T) Groundwater
Date: 1998-02-01 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2004-07-15 00:00:00

Action Type: ENFORCEMENT
Action: Notification - Preclosure
Date: 2006-06-09 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2004-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2002-07-15 00:00:00

Action Type: Other
Action: Leak Discovery
Date: 1988-05-26 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-07-15 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1988-06-10 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2006-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-04-15 00:00:00

Action Type: ENFORCEMENT
Action: Closure/No Further Action Letter
Date: 2006-07-24 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Contacts

Contact Type:	Local Agency Caseworker	***City:***	ALHAMBRA
Contact Name:	JOHN AWUJO	***Email:***	jawujo@dpw.lacounty.gov
Organization Name:	LOS ANGELES COUNTY	***Phone No:***	6264583507
Address:	900 S FREMONT AVE		

Contact Type:	Regional Board Caseworker	***City:***	LOS ANGELES
Contact Name:	NOMAN CHOWDHURY	***Email:***	nchowdhury@waterboards.ca.gov
Organization Name:	LOS ANGELES RWQCB (REGION 4)	***Phone No:***	2135766704
Address:	320 WEST 4TH STREET, SUITE 200		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
10	1 of 1	NNE	0.36 / 1,877.68	268.52 / 15	JAY & ALLENS 16161 LEFFINGWELL RD WHITTIER CA 90603	LUST

Global ID:	T0603704156	***CUF Case:***	YES
Case Type:	LUST Cleanup Site	***Begin Date:***	1988-09-01 00:00:00
Status:	Completed - Case Closed	***How Discovered:***	Tank Closure
Status Date:	1990-01-12 00:00:00	***Stop Method:***	
RB Case No:	I-14341	***County:***	Los Angeles
LOC Case No:		***Latitude:***	33.93246
Lead Agency:	LOS ANGELES COUNTY	***Longitude:***	-117.985795
Case Worker:	JOA	***File Location:***	
Local Agency:	LOS ANGELES COUNTY		
Potential Media Of Concern:	Gasoline		
Potential Media Affected:	Soil		
How Discovered Description:			
Stop Description:			
Cal Water Watershed Name:	San Gabriel River - Lower San Gabriel - Central (Split) (405.15)		
DWR Groundwater Subbasin Name:	Coastal Plain Of Los Angeles - Central (4-11.04)		
Site History:			

Status History

Status:	Completed - Case Closed	***Status Date:***	1990-01-12 00:00:00
Status:	Open - Case Begin Date	***Status Date:***	1988-09-01 00:00:00
Status:	Open - Site Assessment	***Status Date:***	1989-11-14 00:00:00

Activities

Action Type:	Other
Action:	Leak Discovery
Date:	1988-09-01 00:00:00

Action Type:	Other
Action:	Leak Reported
Date:	1989-12-05 00:00:00

Contacts

Contact Type:	Local Agency Caseworker	***City:***	ALHAMBRA
Contact Name:	JOHN AWUJO	***Email:***	jawujo@dpw.lacounty.gov
Organization Name:	LOS ANGELES COUNTY	***Phone No:***	6264583507
Address:	900 S FREMONT AVE		

Contact Type:	Regional Board Caseworker	***City:***	Los Angeles
Contact Name:	YUE RONG	***Email:***	yrong@waterboards.ca.gov
Organization Name:	LOS ANGELES RWQCB (REGION 4)	***Phone No:***	
Address:	320 W. 4TH ST., SUITE 200		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	1 of 1	NE	0.36 / 1,911.86	269.28 / 15	TOSCO - 76 STATION #5195 (FORMER) 16205 LEFFINGWELL RD E WHITTIER CA 90603	LUST

Global ID: T0603703719
Case Type: LUST Cleanup Site
Status: Open - Verification Monitoring
Status Date: 2016-04-27 00:00:00
RB Case No: I-11042
LOC Case No:
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: NC
Local Agency: LOS ANGELES COUNTY
CUF Case: NO
Begin Date: 1989-12-15 00:00:00
How Discovered: Tank Closure
Stop Method:
County: Los Angeles
Latitude: 33.9321452
Longitude: -117.9848879
File Location: Regional Board
Potential Media Of Concern: Gasoline
Potential Media Affected: Aquifer used for drinking water supply
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Lower San Gabriel - Central (Split) (405.15)
DWR Groundwater Subbasin Name: Coastal Plain Of Los Angeles - Central (4-11.04)
Site History:

Status History

Status:	Status Date:
Open - Eligible for Closure	2015-09-22 00:00:00
Open - Site Assessment	1999-02-26 00:00:00
Open - Site Assessment	2001-05-02 00:00:00
Open - Verification Monitoring	1990-02-28 00:00:00
Open - Case Begin Date	1989-12-15 00:00:00
Open - Site Assessment	1996-02-12 00:00:00
Open - Site Assessment	2016-04-27 00:00:00
Open - Verification Monitoring	2016-04-27 00:00:00
Open - Remediation	2002-03-20 00:00:00
Open - Site Assessment	2000-02-07 00:00:00

Activities

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2009-10-15 00:00:00

Action Type: RESPONSE
Action: Corrective Action Plan / Remedial Action Plan - Addendum
Date: 2009-07-01 00:00:00

Action Type: RESPONSE

Action: Monitoring Report - Quarterly
Date: 2006-04-15 00:00:00

Action Type: RESPONSE
Action: Other Workplan - Regulator Responded
Date: 2014-02-19 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2014-04-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2009-06-15 00:00:00

Action Type: RESPONSE
Action: CAP/RAP - Other Report
Date: 2015-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2013-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2004-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2013-04-15 00:00:00

Action Type: RESPONSE
Action: CAP/RAP - Feasibility Study Report
Date: 2002-08-08 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2011-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2015-07-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2014-09-30 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2009-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2012-01-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter

Date: 2002-01-28 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2009-04-15 00:00:00

Action Type: Other
Action: Leak Stopped
Date: 1989-12-15 00:00:00

Action Type: Other
Action: Leak Discovery
Date: 1989-12-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2006-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2007-04-15 00:00:00

Action Type: RESPONSE
Action: Other Workplan - Regulator Responded
Date: 2014-08-28 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2004-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-10-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2002-05-08 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-10-15 00:00:00

Action Type: RESPONSE
Action: Remedial Progress Report
Date: 2011-10-15 00:00:00

Action Type: RESPONSE
Action: Well Installation Report
Date: 2005-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2006-01-15 00:00:00

Action Type: RESPONSE
Action: Request for Closure - Regulator Responded
Date: 2015-08-19 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2017-04-15 00:00:00

Action Type: RESPONSE
Action: Soil and Water Investigation Report
Date: 2002-08-08 00:00:00

Action Type: RESPONSE
Action: Remedial Progress Report
Date: 2009-03-09 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2007-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2016-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2016-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2007-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2014-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2002-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2012-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2009-01-15 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1990-02-28 00:00:00

Action Type: ENFORCEMENT
Action: Site Visit / Inspection / Sampling
Date: 2002-05-21 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-04-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2008-04-15 00:00:00

Action Type: RESPONSE
Action: Soil and Water Investigation Report
Date: 2003-07-10 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2007-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2006-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2017-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2015-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2003-07-15 00:00:00

Action Type: RESPONSE
Action: Interim Remedial Action Plan
Date: 2009-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2005-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2004-01-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Quarterly
Date: 2002-07-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2011-10-15 00:00:00

Action Type: RESPONSE
Action: Monitoring Report - Semi-Annually
Date: 2010-07-15 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2003-01-29 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone No: 6264583507

Contact Type: Regional Board Caseworker
Contact Name: NOMAN CHOWDHURY
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: nchowdhury@waterboards.ca.gov
Phone No: 2135766704

12	*1 of 1*	*NW*	*0.73 / 3,867.67*	*223.35 / -30*	***WHITTIER GREENWAY TRAIL EAST EXTENSION LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE WHITTIER CA 90604***	***ENVIROSTOR***

Estor/EPA ID:	60002222	***Funding:***	SITE PROPONENT
Site Type:	VOLUNTARY CLEANUP	***County:***	LOS ANGELES
Site Code:	301715	***Assembly District:***	, 57
Ntnl Priority List:	NO	***Senate District:***	, 32
Acres:	0.1 ACRES	***Latitude:***	33.935994
Special Program:		***Longitude:***	-117.998083

Address Desc: LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE
Address Desc 2: Leffingwell Creek Crossing, East of Scott Avenue
Clean Up Status: ACTIVE AS OF 8/1/2015
Clean Up Oversight Agencies:
School District:
Program Type: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Past Caused Contamination: RAILROAD RIGHT OF WAY
APN: NONE SPECIFIED
Potential Media Affected: SOIL
Potential Contaminants:

ARSENIC
COPPER AND COMPOUNDS
LEAD
ZINC

Site History:

The City of Whittier submitted a VCA Application; the Site is an undeveloped railroad right of way covered with dirt and sporadic plantings of non-native vegetation. The is a 30" Southern California Gas Co. high pressure gas line beneath the easement. There is a storm drain inlet catch basin west of the site. UPRR has owned the railroad right of way since 1965 and the City of Whittier holds a perpetual surface easement since 2013 on the project site (300 feet by 15 feet) for development as a bicycle and pedestrian trail. The railroad was originally constructed during the late 1880's. It first operated as the Pacific Electric Railroad ROW and was subsequently taken over by Southern Pacific Railroad.

Facility Information

Program Type: VOLUNTARY CLEANUP
Status: ACTIVE
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002222

Current Activities

Activity Type: Currently Scheduled Activities Through 6/30/2018
Area Name:
Sub Area:
Due Date: 10/9/2016
Revised Date: 6/4/2018
Document Type: Removal Action Workplan

Completed Activities

Activity Type: Completed Activities
Area Name:
Sub Area:
Date Completed: 8/11/2015
Document Type: Application
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002222&doc_id=60438375
Comments: VCP application submitted.

Activity Type: Completed Activities
Area Name:
Sub Area:
Date Completed: 9/15/2015
Document Type: Voluntary Cleanup Agreement
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002222&enforcement_id=60401503
Comments: Fully executed VCA sent to RP via regular mail 09/16/15.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	1 of 1	NW	0.75 / 3,978.63	222.86 / -31	UPRR SITE ADJACENT TO PROPOSED GREENWAY TRAIL EXTENSION LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE WHITTIER CA 90604	ENVIROSTOR

Estor/EPA ID: 60002182
Site Type: VOLUNTARY CLEANUP
Site Code: 301706
Ntnl Priority List: NO
Acres: 5.9 ACRES
Special Program:
Funding: SITE PROPONENT
County: LOS ANGELES
Assembly District: , 57
Senate District: , 32
Latitude: 33.936077
Longitude: -117.998544
Address Desc: LEFFINGWELL CREEK CROSSING, EAST OF SCOTT AVENUE
Address Desc 2: Leffingwell Creek Crossing, East of Scott Avenue
Clean Up Status: ACTIVE AS OF 5/18/2015
Clean Up Oversight Agencies:
School District:
Program Type: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Past Caused Contamination: RAILROAD RIGHT OF WAY
APN: 8229-001-811
Potential Media Affected: SOIL, UNDER INVESTIGATION
Potential Contaminants:

ARSENIC
COPPER AND COMPOUNDS
LEAD
LEAD, ORGANIC (TETRAETHYL LEAD)
ZINC

Site History:

The Site is located adjacent to the approximately 300-foot long by 15-foot wide lease area that is part of the City of Whittier's planned extension of a nature trail (Greenway Trail Extension Project). Work within the lease area is the responsibility of the City of Whittier; work that is required to the north and south of the lease area is the responsibility of UPRR. The area of the Site north of the lease area are residential properties and the area of the Site south of the lease property is an active UPRR railroad track corridor.

Facility Information

Program Type: VOLUNTARY CLEANUP
Status: ACTIVE
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002182

Current Activities

Activity Type: Currently Scheduled Activities Through 6/30/2018
Area Name: Residential Parcels
Sub Area:
Due Date: 11/24/2017
Revised Date:
Document Type: CEQA - Notice of Exemption

Completed Activities

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 6/15/2016
Document Type: Preliminary Endangerment Assessment Workplan
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60409592
Comments: DTSC approves the UPRR Whittier Site's revised PEA Work Plan, Site-specific Health & Safety Plan and Quality Assurance Project Plan. PEA fieldwork scheduled for implementation in July 2016.

Activity Type: Completed Activities

Area Name: PROJECT WIDE
Sub Area:
Date Completed: 2/9/2017
Document Type: Preliminary Endangerment Assessment Workplan
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60418553
Comments: The revised PEA Work Plan Addendum was submitted to DTSC on 1/27/2017.

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 1/15/2017
Document Type: Preliminary Endangerment Assessment Workplan
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60428410
Comments:

Activity Type: Completed Activities
Area Name: Residential Parcels
Sub Area:
Date Completed: 12/8/2017
Document Type: Removal Action Workplan
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60433740
Comments:

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 9/11/2015
Document Type: Voluntary Cleanup Agreement
Doc Link:
Comments: UPRR Fully Executed VCA.

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 8/3/2016
Document Type: Fieldwork
Doc Link:
Comments: UPRR Whittier Site PEA Fieldwork Completed 8/3/2016.

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 1/11/2016
Document Type: Preliminary Endangerment Assessment Workplan
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60401534
Comments: DTSC issues approval letter for the Final PEA Work Plan and HASP on 1/11/2016.

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 9/11/2015
Document Type: Voluntary Cleanup Agreement
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&enforcement_id=60393034
Comments:

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 9/8/2017
Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&enforcement_id=60436736
Comments: 9/8/2017 - DTSC issues an I&SE Determination and Remedial Action Order to UPRR for the UPRR Whittier Site (Residential Properties).

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 10/23/2017
Document Type: CEQA - Notice of Exemption

Doc Link:
Comments:

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 3/22/2017
Document Type: Fieldwork
Doc Link:
Comments: The PEA Addendum soil sampling fieldwork investigation at the UPRR Right-of-Way (ROW) was completed on 3/22/2017. The soil investigation at the neighboring Yermo Street residential backyards was initiated on 3/6/2017 and completed on 3/10/2017.

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 11/14/2017
Document Type: Preliminary Endangerment Assessment Report
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002182&doc_id=60416903
Comments:

Activity Type: Completed Activities
Area Name: PROJECT WIDE
Sub Area:
Date Completed: 8/3/2016
Document Type: Fieldwork
Doc Link:
Comments: UPRR Whittier Site PEA Fieldwork completed at the UPRR Right-of-Way 7/28/2016. PEA Fieldwork completed at the Residential Backyards 8/3/2016.

Unplottable Summary

Total: 9 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
CHMIRS	LA City Fire	Kentucky Fried Chicken @ 5817 S. Crenshaw Blvd.	Los Angeles CA		821798463
DELISTED COUNTY	WHITTIER GREENWAY TRAIL EAST	000 SCOTT & LAMBERT AVE	WHITTIER CA	90603-	820047929
EMISSIONS	LA MIRADA HILLS DEVELOPMENT CO	ALICANTE E/O SANTA GERTRUDES	LA MIRADA CA		861189008
ENVIROSTOR	LINK STATION US PROJECT	800 NORTH UNION STATION	LOS ANGELES CA	90012	866001605
HAZNET	1X LOWELL JOINT SCHOOL DISTRICT	RANCHO-STARBUCK	WHITTIER CA	906030000	827012957
HAZNET	1X LOWELL JOINT SCHOOL DISTRICT	MAINTENANCE	WHITTIER CA	906030000	826484789
LA HMS		0 SANTA GERTRUDES AVE	WHITTIER CA	90605	820326550
LA HMS		KENTUCKY SPGS	CA		820333583
RCRA NON GEN	CALTRANS YARD	FIRST ST AND RTE 710 OVERCROSS INTERSECTION	LOS ANGELES CA	90022	810340110

Unplottable Report

Site: *LA City Fire*
Kentucky Fried Chicken @ 5817 S. Crenshaw Blvd. Los Angeles CA

CHMIRS

ID:	05-2408	**Notified Date:**	4/22/200509:21:51 AM
Control No:	05-2408	**Notified Date Time:**	
Year:	2005	**County:**	Los Angeles County

California Hazardous Material Incident Report System

Contained:	No	**Bbls:**	0
Substance:	Cooking Oil	**Cups:**	0
Incident Date:	4/22/200512:00:00 AM	**Cuft:**	0
No of Injuries:	0	**Gals:**	100
No of Fatals:	0	**Grams:**	0
No of Evacs:	0	**Lbs:**	0
Cleanup:	Yet to be determined	**Liters:**	0
Water:		**Oz:**	0
Water Way:	Storm Drain	**Pts:**	0
City:	Los Angeles	**Qts:**	0
County:	Los Angeles County	**Sheen:**	0
Zip:		**Tons:**	0
Site:	Merchant/Business	**Unknown:**	0

Admin Agency: Los Angeles City Fire Department
Location: Kentucky Fried Chicken @ 5817 S. Crenshaw Blvd.
Description: RP received report of business dumping cooking oil into the storm drain.

Site: *WHITTIER GREENWAY TRAIL EAST*
000 SCOTT & LAMBERT AVE WHITTIER CA 90603-

DELISTED COUNTY

Original Source Facility ID:	SD0000557
Original Source Name:	Los Angeles County Site Mitigation List
Record Date:	13-OCT-2016

Site: *LA MIRADA HILLS DEVELOPMENT CO*
ALICANTE E/O SANTA GERTRUDES LA MIRADA CA

EMISSIONS

1990 Criteria Data

Facility ID:	70044	**CERR Code:**	
Facility SIC Code:	6552	**TOGT:**	
CO:	19	**ROGT:**	
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	0
COID:	LA	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	
CHAPIS:		**PM10T:**	

1990 Toxic Data

Facility ID:	70044	**COID:**	LA
Facility SIC Code:	6552	**DISN:**	SOUTH COAST AQMD
CO:	19	**CHAPIS:**	
Air Basin:	SC	**CERR Code:**	
District:	SC		
TS:			

Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

Site: ***LINK STATION US PROJECT***
800 NORTH UNION STATION LOS ANGELES CA 90012

ENVIROSTOR

Estor/EPA ID:	60002486	***Funding:***	SITE PROPONENT
Site Type:	VOLUNTARY CLEANUP	***County:***	LOS ANGELES
Site Code:	301784	***Assembly District:***	
Ntnl Priority List:	NO	***Senate District:***	
Acres:	NONE SPECIFIED	***Latitude:***	0
Special Program:	VOLUNTARY CLEANUP PROGRAM	***Longitude:***	0

Address Desc: 800 NORTH UNION STATION
Address Desc 2: 800 North Union Station
Clean Up Status: ACTIVE AS OF 2/9/2016
Clean Up Oversight Agencies:
School District:
Program Type: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Past Caused Contamination: NONE SPECIFIED
APN: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
Potential Contaminants:

NONE SPECIFIED

Site History:

Facility Information

Program Type: VOLUNTARY CLEANUP
Status: ACTIVE
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002486

Completed Activities

Activity Type: Completed Activities
Area Name:
Sub Area:
Date Completed: 3/6/2017
Document Type: Voluntary Cleanup Agreement
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002486&enforcement_id=60424335
Comments: Final Signed Agreement MTA US Link Station Project

Future Activities

Area Name:
Sub Area:
Document Type: Site Characterization Report
Due Date: 2018
Activity Type: Future Activities

Site: ***1X LOWELL JOINT SCHOOL DISTRICT***
RANCHO-STARBUCK WHITTIER CA 906030000

HAZNET

Site: ***1X LOWELL JOINT SCHOOL DISTRICT***
MAINTENANCE WHITTIER CA 906030000

HAZNET

Site:
0 SANTA GERTRUDES AVE WHITTIER CA 90605

LA HMS

Site No: 000912

Area: 1A

--Details--
File No: I00957
File Name: SANTA GERTRUDES DUMP (DEST)
Status Code: OPEN
Status Desc: File Opened, no permit exists
Permit No:
Permit Category:
Permit Category Desc:
Permit Status Code:
Permit Status Desc:
Permit Type:
Permit Type Desc:

Site:
KENTUCKY SPGS CA LA HMS

Site No: 003910
Area: 4

--Details--
File No: I04054
File Name: KENTUCKY SPRINGS BOYS CA(DEST)
Status Code: OPEN
Status Desc: File Opened, no permit exists
Permit No:
Permit Category:
Permit Category Desc:
Permit Status Code:
Permit Status Desc:
Permit Type:
Permit Type Desc:

Site: ***CALTRANS YARD***
FIRST ST AND RTE 710 OVERCROSS INTERSECTION LOS ANGELES CA 90022 RCRA NON GEN

EPA Handler ID: CAP000192286
Land Type Code: S
Land Type Desc: State
Federal Waste Generator Code: N
Gen Status Univ Code: N
Gen Status Univ Desc: No Report
Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Recycler Activity: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Inject Activity: No
Receives Waste from Offsite: No
TSD Type: -----
TSD Activity: No
Corrective Action Univ: No
Action has been Imposed: No
Action under 3004 (U)/(V): No
Institutional Control Indicator: N
Used Oil Transporter:
Used Oil Transfer Facility:
Used Oil Processor:
Used Oil Refiner:
Used Oil Burner:
Used Oil Market Burner:
Used Oil Spec Marketer:

Activity Location:	CA
County Code:	CA037
County Name:	LOS ANGELES
Contact Name:	HASSAN AZIMA
Contact Phone No and Ext:	323-981-1795 200
Contact Email:	
Contact Address:	2550 CORPORATE PL , STE C 107 , MONTEREY PARK , CA, 91754 , US
Mailing Address:	2550 CORPORATE PL , STE C 107 , MONTEREY PARK , CA, 91754 , US

Violation/Evaluation Summary

Note: NO RECORDS: As of Jan 24 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Details

Source Type:	T	***Used Oil Transporter:***	No
Receive Date:	20080521	***UO Transfer Fac:***	No
Non Notifier:		***Used Oil Processor:***	No
Acknowledge Flag:		***Used Oil Refiner:***	No
Acknowledge Date:		***Used Oil Burner:***	No
Accessibility:		***UO Market Burner:***	No
Land Type:	S	***UO Spec Marketer:***	No
Fed Waste Gen Own:	HQ	***Current Site Name:***	CALTRANS YARD
Fed Waste Gen Cd:	2	***Location Street No:***	
Fed Waste Gen Desc:	Small Quantity Generator	***Location Street 1:***	FIRST ST AND
ST Waste Gen Own:	CA	***Location Street 2:***	RTE 710 OVERCROSS INTERSECTION
State Waste Gen Cd:	N	***Location City:***	LOS ANGELES
Short Term Gen:	No	***Location State:***	CA
Importer Activity:	No	***Location Zip Code:***	90022
Mixed Waste Gen:	No	***County Code:***	CA037
Transporter:	No	***State District:***	
Transfer Facility:	No	***Mailing Street No:***	
TSD Activity:	No	***Mailing Street 1:***	2550 CORPORATE PL
Recycler Activity:	No	***Mailing Street 2:***	STE C 107
Onsite Burn Exempt:	No	***Mailing City:***	MONTEREY PARK
Furnace Exemption:	No	***Mailing State:***	CA
Underground Inject:	No	***Mailing Zip Code:***	91754
Off Site Receipt:	No	***Mailing Country:***	US
Waste Dest Fac:	No	***Contact First Name:***	HASSAN
Subpart K College:		***Contact Middle Initial:***	
Subpart K Hospital:		***Contact Last Name:***	AZIMA
Subpart K Non Profit:		***Contact Street No:***	
Subpart K Withdraw:		***Contact Street 1:***	2550 CORPORATE PL
Include Ntnl Rprt:		***Contact Street 2:***	STE C 107
Reporting Cycle:		***Contact City:***	MONTEREY PARK
LQHUW:	No	***Contact State:***	CA
Trader Importer:		***Contact Zip:***	91754
Trader Exporter:		***Contact Country:***	US
Slab Importer:		***Contact Phone:***	323-981-1795
Slab Exporter:		***Contact Phone Ext:***	200
Current Record:	No	***Contact Fax:***	
Location Country:	US	***Contact Email Addr:***	
State District Owner:		***Contact Title:***	

Handler Details

Source Type:	N	***Used Oil Transporter:***	No
Receive Date:	20080829	***UO Transfer Fac:***	No
Non Notifier:		***Used Oil Processor:***	No
Acknowledge Flag:		***Used Oil Refiner:***	No
Acknowledge Date:		***Used Oil Burner:***	No
Accessibility:		***UO Market Burner:***	No
Land Type:	S	***UO Spec Marketer:***	No
Fed Waste Gen Own:	HQ	***Current Site Name:***	CALTRANS YARD
Fed Waste Gen Cd:	N	***Location Street No:***	
Fed Waste Gen Desc:		***Location Street 1:***	FIRST ST AND
ST Waste Gen Own:	CA	***Location Street 2:***	RTE 710 OVERCROSS INTERSECTION

State Waste Gen Cd:	N	***Location City:***	LOS ANGELES
Short Term Gen:	No	***Location State:***	CA
Importer Activity:	No	***Location Zip Code:***	90022
Mixed Waste Gen:	No	***County Code:***	CA037
Transporter:	No	***State District:***	
Transfer Facility:	No	***Mailing Street No:***	
TSD Activity:	No	***Mailing Street 1:***	2550 CORPORATE PL
Recycler Activity:	No	***Mailing Street 2:***	STE C 107
Onsite Burn Exempt:	No	***Mailing City:***	MONTEREY PARK
Furnace Exemption:	No	***Mailing State:***	CA
Underground Inject:	No	***Mailing Zip Code:***	91754
Off Site Receipt:	No	***Mailing Country:***	US
Waste Dest Fac:	No	***Contact First Name:***	HASSAN
Subpart K College:		***Contact Middle Initial:***	
Subpart K Hospital:		***Contact Last Name:***	AZIMA
Subpart K Non Profit:		***Contact Street No:***	
Subpart K Withdraw:		***Contact Street 1:***	2550 CORPORATE PL
Include Ntnl Rprt:		***Contact Street 2:***	STE C 107
Reporting Cycle:		***Contact City:***	MONTEREY PARK
LQHUW:	No	***Contact State:***	CA
Trader Importer:		***Contact Zip:***	91754
Trader Exporter:		***Contact Country:***	US
Slab Importer:		***Contact Phone:***	323-981-1795
Slab Exporter:		***Contact Phone Ext:***	200
Current Record:	Yes	***Contact Fax:***	
Location Country:	US	***Contact Email Addr:***	
State District Owner:		***Contact Title:***	

Hazardous Waste Details

Haz Waste Cd Owner:	HQ	***Source Type:***	T
Haz Waste Cd:	D008	***Code Type:***	D
BR Waste Code Active Status:	Yes		
Waste Code Active Status:	Yes		
Waste Code Description:	LEAD		

NAICS Details

Source Type:	T	***NAICS Active Status:***	Yes
NAICS Cd Owner:	HQ	***NAICS Cycle:***	2002
NAICS Code:	92612		
NAICS Description:	REGULATION AND ADMINISTRATION OF TRANSPORTATION PROGRAMS		

Source Type:	N	***NAICS Active Status:***	Yes
NAICS Cd Owner:	HQ	***NAICS Cycle:***	2002
NAICS Code:	92612		
NAICS Description:	REGULATION AND ADMINISTRATION OF TRANSPORTATION PROGRAMS		

Owner/Operator Details

Owner/Operator Ind:	CP	***Country:***	
Name:	CALIFORNIA DEPT OF TRANSPORTATION	***Zip Code:***	
Street No:		***Phone:***	
Street 1:		***Type:***	S
Street 2:		***Date Became Current:***	20080512
City:		***Date Ended Current:***	
State:			
Source Type:	N		

Owner/Operator Ind:	CO	***Country:***	US
Name:	DIST 7 CALTRANS	***Zip Code:***	90012
Street No:		***Phone:***	
Street 1:	100 S MAIN ST	***Type:***	S
Street 2:		***Date Became Current:***	19580101
City:	LOS ANGELES	***Date Ended Current:***	
State:	CA		
Source Type:	N		

Owner/Operator Ind:	CO	***Country:***	US
Name:	DIST 7 CALTRANS	***Zip Code:***	90012
Street No:		***Phone:***	
Street 1:	100 S MAIN ST	***Type:***	S
Street 2:		***Date Became Current:***	19580101
City:	LOS ANGELES	***Date Ended Current:***	
State:	CA		
Source Type:	T		

Owner/Operator Ind:	CP	***Country:***	
Name:	CALIFORNIA DEPT OF TRANSPORTATION	***Zip Code:***	
Street No:		***Phone:***	
Street 1:		***Type:***	S
Street 2:		***Date Became Current:***	20080512
City:		***Date Ended Current:***	
State:			
Source Type:	T		

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

National Priorities List (Superfund)-NPL: EPA's (United States Environmental Protection Agency) list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Feb 6, 2018

National Priority List - Proposed: PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Feb 6, 2018

Deleted NPL: DELETED NPL

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.

Government Publication Date: Feb 6, 2018

SEMS List 8R Active Site Inventory: SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Dec 11, 2017

SEMS List 8R Archive Sites: SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Dec 11, 2017

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Jan 24, 2018

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Jan 24, 2018

RCRA Generator List: RCRA LQG

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Jan 24, 2018

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Jan 24, 2018

RCRA Conditionally Exempt Small Quantity Generators List: RCRA CESQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Conditionally Exempt Small Quantity Generators (CESQG) generate 100 kilograms or less per month of hazardous waste or one kilogram or less per month of acutely hazardous waste.

Government Publication Date: Jan 24, 2018

RCRA Non-Generators: RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Jan 24, 2018

Federal Engineering Controls-ECs: FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 20, 2016

Federal Institutional Controls- ICs: FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Jan 20, 2016

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Feb 8, 2017

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Feb 20, 2018

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

LIEN on Property: SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Dec 11, 2017

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Sep 22, 2017

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.
Government Publication Date: Dec 21, 2017

Delisted EnviroStor Database: DELISTED ENVS
Sites removed from the list of facilities made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).
Government Publication Date: Sep 22, 2017

Solid Waste Information System (SWIS): SWF/LF
The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.
Government Publication Date: Jan 31, 2018

EnviroStor Hazardous Waste Facilities: HWP
A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.
Government Publication Date: Jan 30, 2018

Land Disposal Sites: LDS
Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.
Government Publication Date: Dec 04, 2017

Leaking Underground Fuel Tank Reports: LUST
List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.
Government Publication Date: Dec 27, 2017

Delisted Leaking Storage Tanks: DELISTED LST
List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.
Government Publication Date: Jan 31, 2018

Permitted Underground Storage Tank (UST) in GeoTracker: UST
List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).
Government Publication Date: Mar 11, 2018

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE
List of UST cases that are being considered for closure by either the California Environmental Protection Agency, State Water Resources Control Board or the Executive Director that have been posted for a 60-day public comment period.
Government Publication Date: Jan 31, 2018

Historical Hazardous Substance Storage Information Database: HHSS
The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.
Government Publication Date: Aug 27, 2015

Aboveground Storage Tanks: AST
A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Mar 11, 2018

California Environmental Reporting System (CERS) Tanks: CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Jan 4, 2018

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Jan 4, 2018

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Sep 12, 2017

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Feb 18, 2018

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Jan 11, 2018

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Sep 7, 2017

GeoTracker Cleanup Sites Data: CLEANUP SITES

A list of cleanup sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Dec 27, 2017

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Jan 4, 2018

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Jan 4, 2018

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Lands: INDIAN LUST

LUSTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Apr 13, 2017

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

USTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Apr 13, 2017

Delisted Tribal Leaking Storage Tanks: DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Aug 3, 2017

Delisted Tribal Underground Storage Tanks: DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Aug 3, 2017

County

Delisted County Records: DELISTED COUNTY

Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Government Publication Date: Feb 13, 2018

Los Angeles County - Burbank City CUPA List: BURBANK CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the City of Burbank. This list is made available by the City of Burbank Fire Department.

Government Publication Date: Feb 15, 2018

Los Angeles County - El Segundo City Underground Storage Tanks List: ELSEGUNDO UST

List of registered Underground Storage Tanks (USTs) in the City of El Segundo of Los Angeles County, made available by El Segundo City Fire Department.

Government Publication Date: Jan 17, 2017

Los Angeles County - Santa Fe Springs Underground Storage Tank: SANTAFESP UST

A list of registered active Underground Storage Tanks (USTs) in the City of Santa Fe Springs. This list is made available by Santa Fe Springs Department of Fire-Rescue.

Government Publication Date: Jun 30, 2017

Los Angeles County - Santa Monica City Aboveground Storage Tank List: SANTAMON AST

List of registered Aboveground Storage Tanks (ASTs) made available by the Santa Monica Fire Department in the City of Santa Monica of Los Angeles County, California.

Government Publication Date: Mar 13, 2017

Los Angeles County - Santa Monica City CUPA Facilities List: SANTAMON CUPA

The Santa Monica Fire Department's office maintains a list of CUPA Facilities located in Santa Monica city.

Government Publication Date: Mar 23, 2017

Los Angeles County - Santa Monica City Hazardous Materials Facilities: SANTAMON HAZ

A list of Hazardous Materials Facilities in the City of Santa Monica, Los Angeles county. This list is made available by Santa Monica Fire Prevention Division which has been designated as the CUPA for the City.

Government Publication Date: Mar 13, 2017

Los Angeles County - Santa Monica City Hazardous Waste Facilities: SANTAMON HW

A list of Hazardous Waste Facilities in Los Angeles County, City of Santa Monica. This list is made available by Santa Monica Fire Prevention Division.

Government Publication Date: Mar 13, 2017

Los Angeles County - Santa Monica City Underground Storage Tank List: SANTA MONICA UST

A list of registered active Underground Storage Tanks (USTs) in the City of Santa Monica made available by Santa Monica Fire Prevention Division.

Government Publication Date: Nov 16, 2017

Los Angeles County - Torrance City Underground Storage Tanks: TORRANCE UST

A list of registered Underground Storage Tank (UST) sites in Torrance City of Los Angeles County. This list is made available by Torrance City Office of Clerk.

Government Publication Date: Mar 19, 2018

Los Angeles County - Vernon City CUPA List: VERNON CUPA

The Vernon City Fire Department's office maintains a list of CUPA Facilities located in Vernon city.

Government Publication Date: Dec 11, 2017

Los Angeles County - Vernon City UST List: VERNON UST

A list of Underground Storage Tanks (UST) in Vernon City provided by the Vernon City Fire Department.

Government Publication Date: Dec 11, 2017

Los Angeles County HMS List: LA HMS

List of sites in the Los Angeles County Department of Public Works Hazardous Materials System (HMS) Database which have or have had permits for Industrial Waste, Underground Storage Tanks, or Stormwater in the county of Los Angeles.

Government Publication Date: Jan 25, 2018

Los Angeles County Long Beach UST List: LA LONGB UST

List of registered Underground Storage Tanks (USTs) in the City of Long Beach, Los Angeles County, made available by the Long Beach Certified Unified Program Agency (CUPA). The Long Beach CUPA operates under oversight shared by the Long Beach Fire Department and Health Department.

Government Publication Date: Mar 15, 2017

Los Angeles County Solid Waste Sites: LA SWF

List of permitted solid waste facilities, closed landfills, historical dumpsites and other solid waste sites in Los Angeles County, made available by the Department of Public Works in Los Angeles County.

Government Publication Date: Jan 25, 2018

Orange County - Anaheim City AST List: ANAHEIM AST

List of Aboveground Storage Tanks (ASTs) in Anaheim City, Orange County made available by Anaheim Fire & Rescue.

Government Publication Date: Jul 21, 2017

Orange County - Anaheim City UST List: ANAHEIM UST

A list of Underground Storage Tanks in Anaheim City, Orange County. This list is made available by Anaheim Fire & Rescue Department.

Government Publication Date: Jul 21, 2017

Orange County - Hazardous Waste Facilities: ORANGE HW

A list of Hazardous Waste Facilities in Orange County. This list is made available by Orange County Environmental Health Department.

Government Publication Date: Mar 2, 2018

Orange County Aboveground Petroleum Storage Tank Listing: ORANGE AST

A list of Aboveground Petroleum Storage Tank (APST) facilities inspected by Orange County Certified Unified Program Agency (CUPA) Under the Aboveground Petroleum Storage Act (APSA). This list is made available by the Environmental Health Division of Orange County Health Care Agency.

Government Publication Date: Mar 2, 2018

Orange County LOP Lead Cases List: ORANGE LOP

The Local Oversight Program of the County of Orange provides regulatory cleanup oversight for cleanup of leaking underground storage tanks (USTs). This dataset is provided by the Orange County Health Care Agency.

Government Publication Date: Feb 5, 2018

Orange County Underground Storage Tanks Listing: ORANGE UST

A list of registered Underground Storage Tank (UST) sites in Orange County. This list is made available by Orange County Health Care Agency (OCHCA), Environmental Health Division which oversees the underground storage tank inspection program in most of the cities of Orange County, with the exception of Anaheim, Fullerton, and Orange.

Government Publication Date: Mar 2, 2018

Los Angeles County - City of Los Angeles UST List: UST LA CITY

A list of active and inactive underground storage tank facilities made available by the Los Angeles Fire Department CUPA.

Government Publication Date: Sep 01, 2017

Los Angeles County - City of Los Angeles AST List: AST LA CITY

A list of active and inactive above ground petroleum storage tanks made available by the Los Angeles Fire Department CUPA.

Government Publication Date: Sep 01, 2017

Los Angeles County - City of Los Angeles Hazardous Materials Facilities: LA CITY HAZMAT

A list of active and inactive hazardous materials facilities made available by the Los Angeles Fire Department CUPA.

Government Publication Date: Sep 01, 2017

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS

The US Environmental Protection Agency (EPA)'s Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.

Government Publication Date: Dec 12, 2017

Toxics Release Inventory (TRI) Program: TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Dec 31, 2016

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Sep 11, 2017

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Dec 21, 2017

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA of the Act) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified ongressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Jun 30, 2017

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Oct 10, 2017

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Nov 18, 2016

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: Sep 14, 2016

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: Sep 14, 2016

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: Nov 22, 2016

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: Sep 13, 2016

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: Jul 31, 2017

Alternative Fueling Stations: ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Feb 6, 2018

Superfund Decision Documents: SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Jan 9, 2018

Registered Pesticide Establishments: SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Mar 1, 2018

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Nov 30, 2017

State

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked in the Department of Toxic Substance Control (DTSC) EnviroStor.

Government Publication Date: Nov 24, 2017

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jun 30, 2017

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Sep 20, 2017

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Aug 21, 2017

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Hazardous Waste Manifest Data: HAZNET

A list of hazardous waste manifests received each year by Department of Toxic Substances Control (DTSC). The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Oct 24, 2016

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: Feb 1, 2018

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Feb 16, 2012

Drycleaner Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Jan 18, 2018

Delisted Drycleaners: DELISTED DRYC

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jan 18, 2018

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Oct 3, 2017

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program. This program requires emission inventory updates every four years.

Government Publication Date: Dec 31, 2015

Tribal

No Tribal additional environmental record sources available for this State.

County

Orange County Industrial Cleanup Program Cases Listing: ORANGE ICP

Orange County Health Care Agency's Environmental Health Division has an Industrial Cleanup (IC) program which oversees the voluntary cleanup of contaminated property. This is a list of cases (by city) which the IC program has overseen in the past, or is currently overseeing.

Government Publication Date: Feb 5, 2018

Los Angeles County Site Mitigation List: LA SML

A Site Mitigation List in the County of Los Angeles. The list is made available by Los Angeles County Fire Department. Site mitigation is handled by the Site Mitigation Unit (SMU) which facilitates completion of site clean-up projects of contaminated sites in an expeditious manner in all cities of the Los Angeles County except El Segundo, Glendale, Long Beach, Santa Fe Springs, and Vernon.

Government Publication Date: Nov 30, 2017

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		20180402212p
Date Completed:		April 2, 2018
Project Number:		11974.001
Project Property:		Benchmark East Whittier Phase I ESA 11537 Grovedale Drive Whittier CA 90604
Coordinates:		
	Latitude:	33.927091
	Longitude:	-117.989341
	UTM Northing:	3754512.67153 Meters
	UTM Easting:	408556.830727 Meters
	UTM Zone:	UTM Zone 11S
	Elevation:	253.83 ft
	Slope Direction:	WNW

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Geologic Information....7
Soil Information....9
Wells and Additional Sources....11
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The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



Current USGS Topo

0 0.2 0.4 0.8 Miles

N

Quadrangle(s): La Habra,CA; Whittier,CA

Source: USGS 7.5 Minute Topographic Map

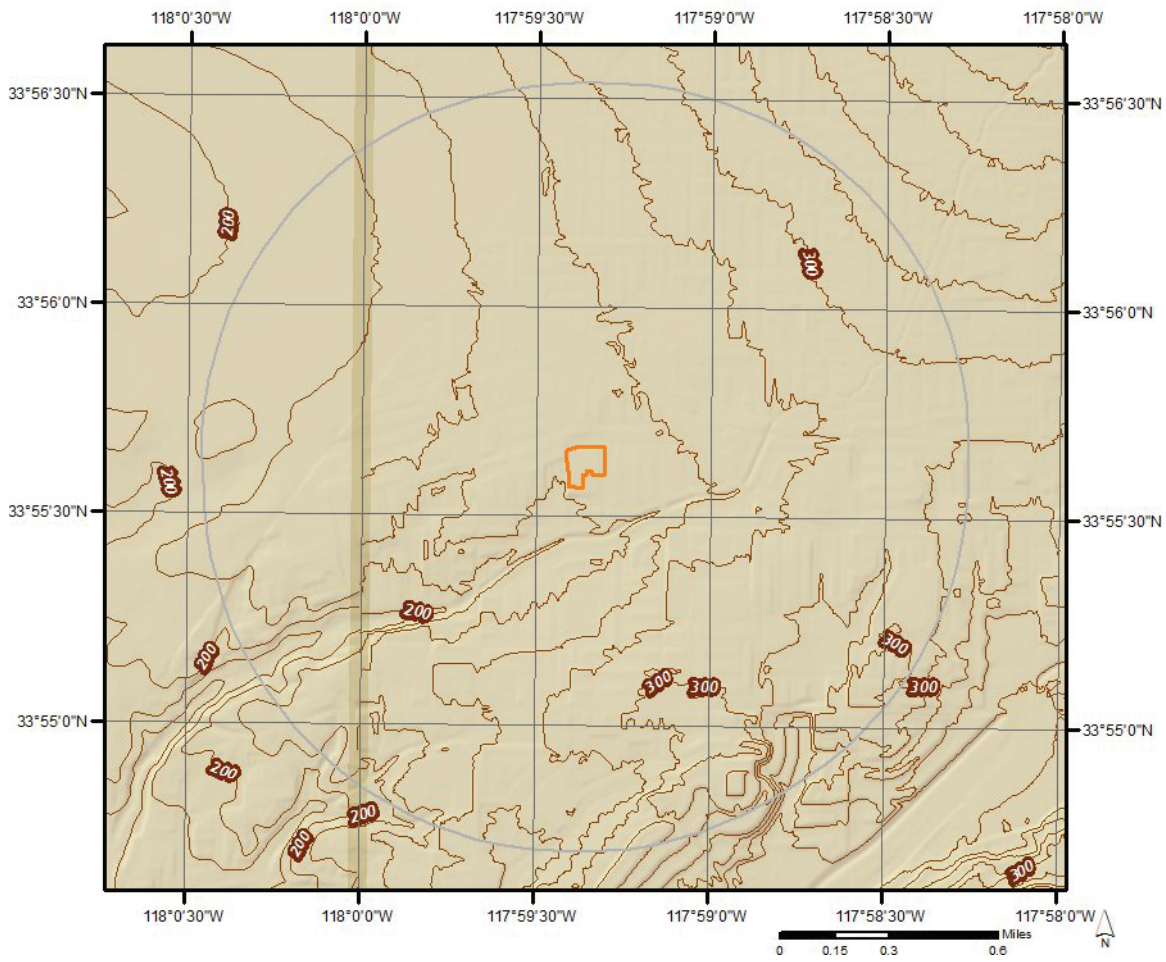
ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	253.83 ft
Slope Direction:	WNW



Hydrologic Information



Wetland

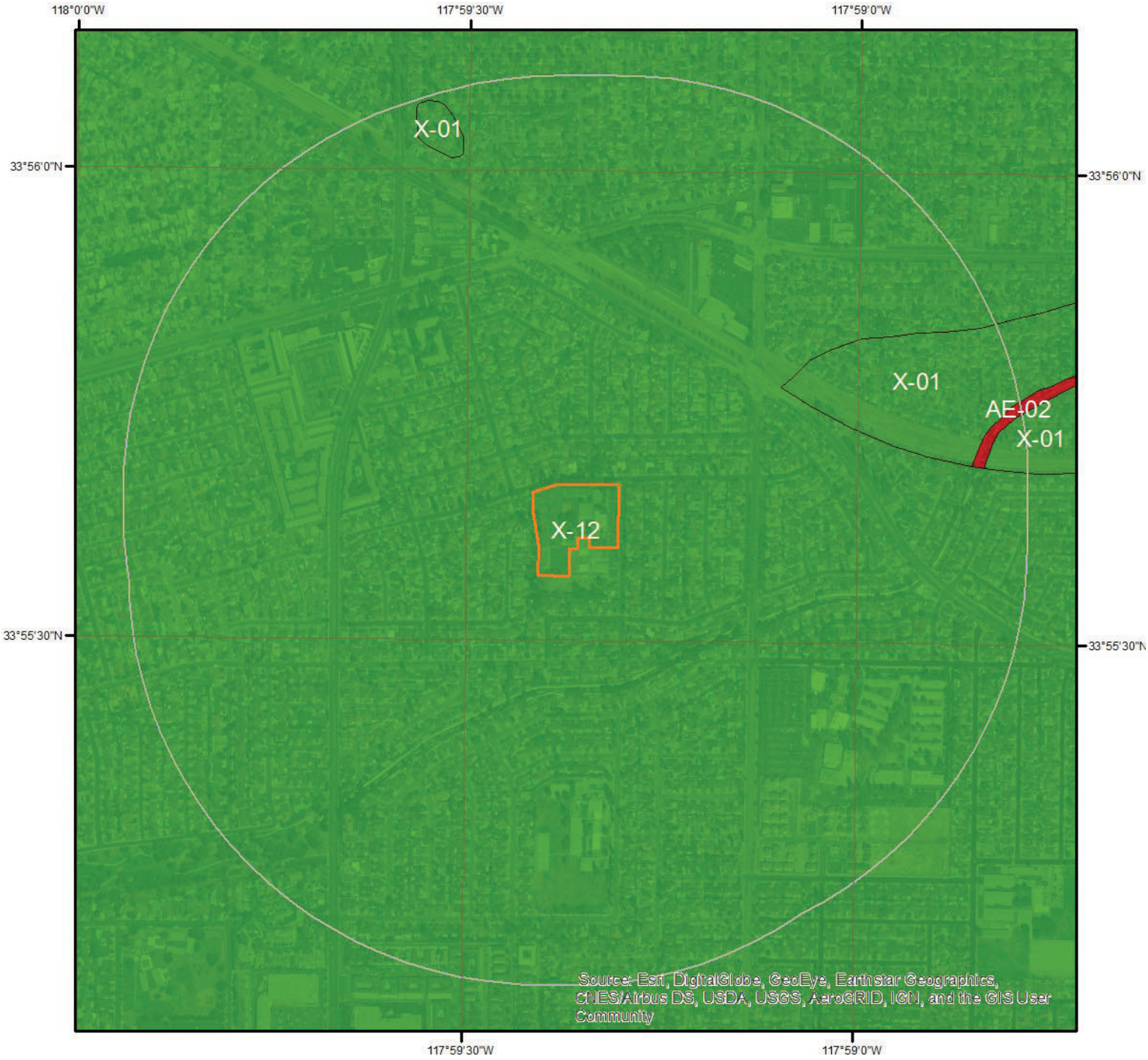
Miles
0 0.075 0.15 0.3
N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Hydrologic Information



Flood Hazard Zones

Miles
0 0.125 0.25

This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

N

06059C0036J
06037C1861F

A	AO	X
A99	V	OPEN WATER
AE	VE	NOT POPULATED
AH	D	AREA NOT INCLUDED

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.

Available FIRM Panels in area:	06059C0036J(effective:2009-12-03) 06037C1861F(effective:2008-09-26)

Flood Zone AE-02

Zone:	AE
Zone subtye:	1 PCT ANNUAL CHANCE FLOOD HAZARD CONTAINED IN CHANNEL

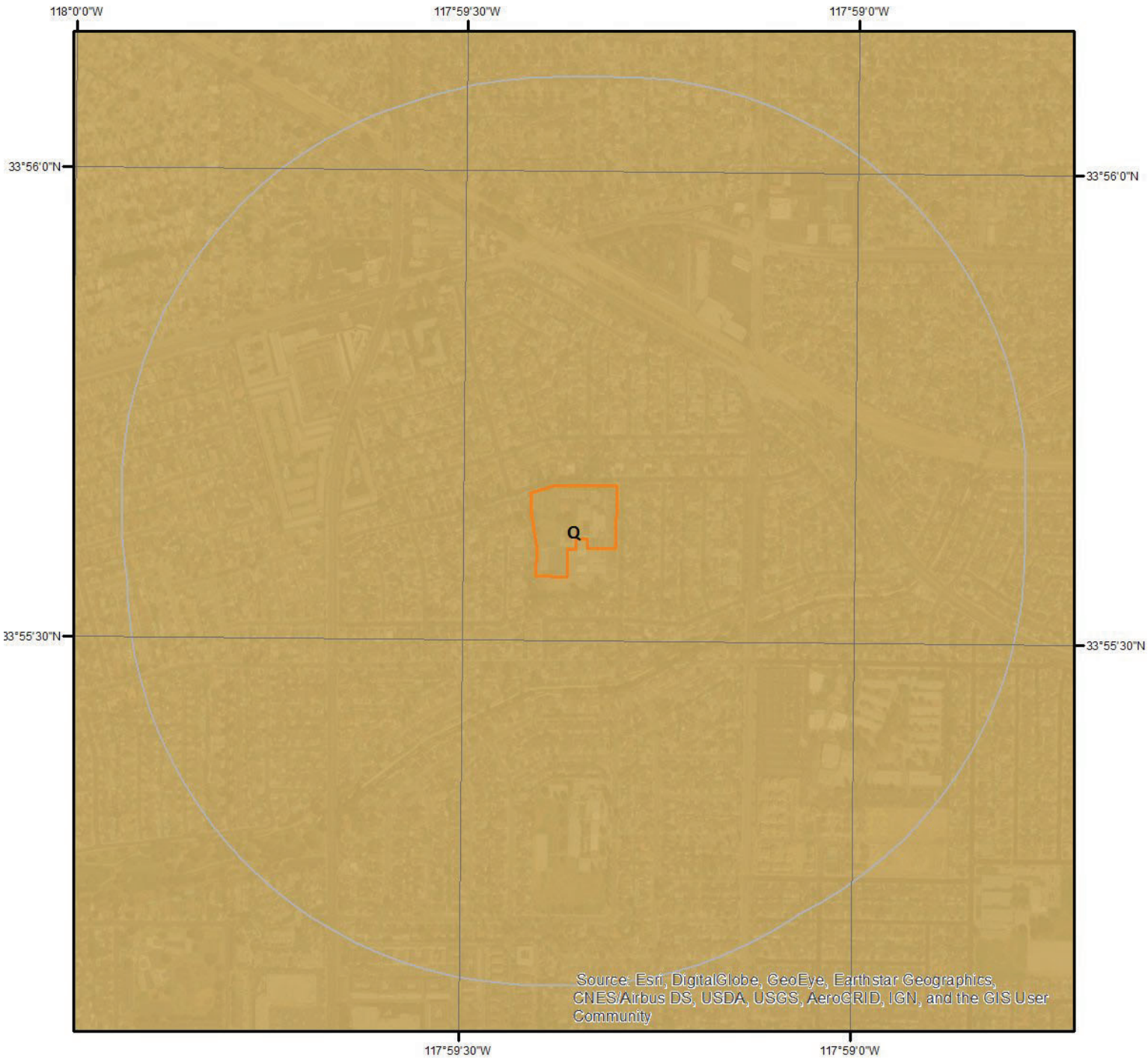
Flood Zone X-01

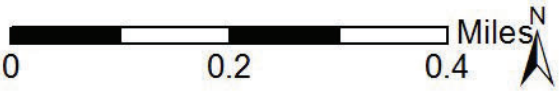
Zone:	X
Zone subtye:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-12

Zone:	X
Zone subtye:	AREA OF MINIMAL FLOOD HAZARD

Geologic Information





Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

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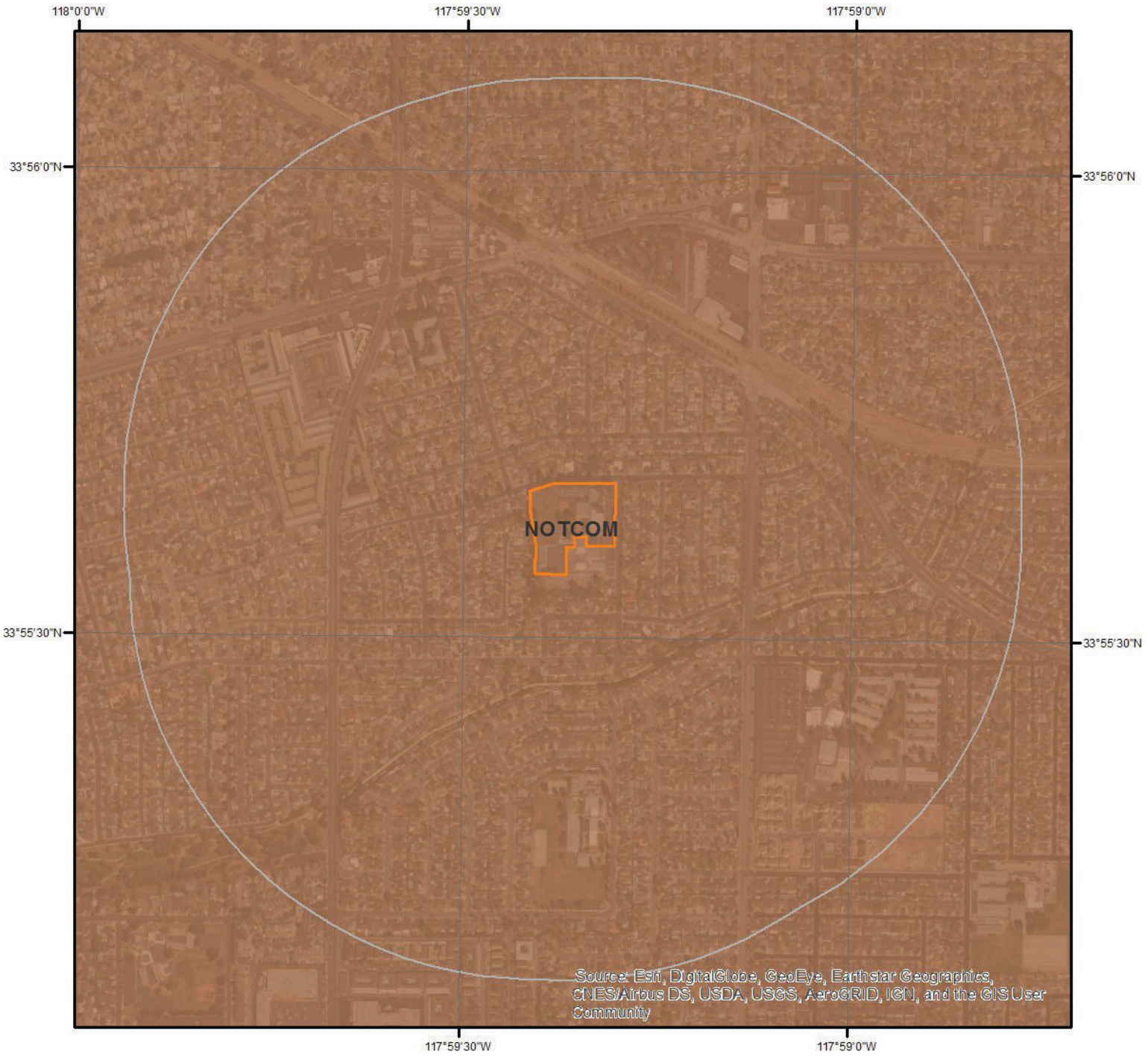
Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Q

Unit Name:	Quaternary alluvium and marine deposits
Unit Age:	Pliocene to Holocene
Primary Rock Type:	alluvium
Secondary Rock Type:	terrace
Unit Description:	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast.

Soil Information



SSURGO Soils

0 0.2 0.4 Miles N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

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Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit NOTCOM

Map Unit Name: No Digital Data Available

No more attributes available for this map unit

Wells and Additional Sources



Wells & Additional Sources

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation

N

0 0.15 0.3 0.6 Miles

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	PWS ID	Distance (ft)	Direction
30	CA3600530	4,799.40	NNW

Safe Drinking Water Information System (SDWIS)

Map Key	PWS ID	Distance (ft)	Direction
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW
30	CA3600530	4,799.40	NNW

USGS National Water Information System

Map Key	Monitoring Loc Identifier	Distance (ft)	Direction
10	USGS-335603118590401	2,425.81	NNE
23	USGS-335609118000103	4,275.99	NW
23	USGS-335609118000105	4,275.99	NW
23	USGS-335609118000102	4,275.99	NW
23	USGS-335609118000104	4,275.99	NW
23	USGS-335609118000101	4,275.99	NW
24	USGS-335609118595801	4,285.80	NW
27	USGS-335609118000201	4,329.10	NW

State Sources

Oil and Gas Wells

Map Key	All Well Key	Distance (ft)	Direction
1		0.00	-
2		535.41	W
3		1,048.05	NW
4		1,249.34	WSW
5		1,428.30	W
6		1,803.56	N
7		1,862.34	WSW
8		2,033.50	W
9		2,417.89	WSW
11		2,610.74	W
12		2,831.77	W
13		2,879.20	SE
14		2,795.36	SW

Wells and Additional Sources Summary

15	3,214.64	W
16	3,225.32	SW
17	3,665.85	WNW
18	3,767.37	WNW
19	3,848.86	WSW
20	3,893.60	WSW
21	3,983.94	W
22	4,020.67	NE
29	4,531.03	WSW
31	4,746.99	NNE
32	4,952.68	SE

Public Water Supply Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Water Wells

Map Key	Site Code	Distance (ft)	Direction
25	339360N1180002W002	4,290.01	NW
26	339360N1180002W001	4,304.66	NW
28	339360N1180011W002	4,490.96	NW
28	339360N1180011W001	4,490.96	NW
28	339360N1180011W003	4,490.96	NW

Well Investigation Program Case List

Map Key	ID	Distance (ft)	Direction
	No records found		

Public Water Systems Violations and Enforcement Data

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	PWSV

PWS ID: CA3600530
PWS Type Code: TNCWS
PWS Type Description: Transient Non-Community Water System
Primary Source Code: SW
Primary Source Desc: Surface Water
PWS Activity Code: A
PWS Activity Description: Active
PWS Deactivation Date:
Phone Number: 909-794-6724

--Details--
Population Served Count: 500
City Served:
County Served: San Bernardino
State Served: CA
Zip Code Served:

Safe Drinking Water Information System (SDWIS)

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	CA3600530004	Pop Cat 11 Cd:	2
Facility Name:	Treatment Plant	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	19-AUG-14	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	No	Phone No:	909-794-6724
Facility Type Cd:	TP	Phone Ext No:	-
Facility Type Desc:	Treatment Plant	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	-	Avlblty Desc:	-
Water Type Code:	-	Wtr Tp Desc:	-

Wells and Additional Sources Detail Report

DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	3
Submission Year:	2014	Validity Ind:	No
Submission Yr Qrtr:	2014Q3		

--Details--

Treatment ID:	01
Treatment Process Code:	421
Treatment Process:	Hypochlorination, Post
Treatment Objective Code:	D
Treatment Objective:	Disinfection
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Treatment ID:	02
Treatment Process Code:	421
Treatment Process:	Hypochlorination, Post
Treatment Objective Code:	D
Treatment Objective:	Disinfection
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-

Treatment Plant Zip Code: -
Treatment Comments: -

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	55746	Pop Cat 11 Cd:	2
Facility Name:	TREATMENT PLANT	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	No	Phone No:	909-794-6724
Facility Type Cd:	TP	Phone Ext No:	-
Facility Type Desc:	Treatment Plant	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	-	Avlblty Desc:	-
Water Type Code:	-	Wtr Tp Desc:	-
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Reported and accepted
Subms Sts Cd Vio:	Y	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	003
Is Wholesaler:	No	Sub Quarter:	1

Wells and Additional Sources Detail Report

Submission Year:	2016	Validity Ind:	No
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	60907	Pop Cat 11 Cd:	2
Facility Name:	TREATMENT UNIT	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	No	Phone No:	909-794-6724
Facility Type Cd:	TP	Phone Ext No:	-
Facility Type Desc:	Treatment Plant	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	-	Avlblty Desc:	-
Water Type Code:	-	Wtr Tp Desc:	-
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State

Wells and Additional Sources Detail Report

Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Reported and accepted
Subms Sts Cd Vio:	Y	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	002
Is Wholesaler:	No	Sub Quarter:	1
Submission Year:	2016	Validity Ind:	No
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	14909
Treatment Process Code:	341
Treatment Process:	Filtration, Cartridge
Treatment Objective Code:	P
Treatment Objective:	Particulate removal
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	FILTRATION, CARTRIDGE

Treatment ID:	14908
Treatment Process Code:	421
Treatment Process:	Hypochlorination, Post
Treatment Objective Code:	D
Treatment Objective:	Disinfection
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	HYPOCHLORINATION, POST

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	CA3600530003	Pop Cat 11 Cd:	2

Wells and Additional Sources Detail Report

Facility Name:	Treatment Plant	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	19-AUG-14	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	No	Phone No:	909-794-6724
Facility Type Cd:	TP	Phone Ext No:	-
Facility Type Desc:	Treatment Plant	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	-	Avlblty Desc:	-
Water Type Code:	-	Wtr Tp Desc:	-
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	3
Submission Year:	2014	Validity Ind:	No
Submission Yr Qrtr:	2014Q3		

--Details--

Treatment ID:	02
Treatment Process Code:	421
Treatment Process:	Hypochlorination, Post
Treatment Objective Code:	D
Treatment Objective:	Disinfection

Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Treatment ID:	01
Treatment Process Code:	341
Treatment Process:	Filtration, Cartridge
Treatment Objective Code:	P
Treatment Objective:	Particulate removal
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	37869	Pop Cat 11 Cd:	2
Facility Name:	WELL 1	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	Yes	Phone No:	909-794-6724
Facility Type Cd:	WL	Phone Ext No:	-
Facility Type Desc:	Well	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	GW	Wtr Tp Desc:	Ground water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-

Wells and Additional Sources Detail Report

Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	002
Is Wholesaler:	No	Sub Quarter:	1
Submission Year:	2016	Validity Ind:	No
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	3	Pop Cat 11 Cd:	2
Facility Name:	TREATMENT PLANT	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	18-DEC-13	ORG Name:	Camp Arbolado

Wells and Additional Sources Detail Report

Primacy Agency:	California	Admin Name:	Suman Rama
Is Source Ind:	No	Phone No:	9097946724
Facility Type Cd:	TP	Phone Ext No:	-
Facility Type Desc:	Treatment Plant	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	mfarrell@dph.sbcounty.gov
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	-	Wtr Tp Desc:	-
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	4
Submission Year:	2013	Validity Ind:	No
Submission Yr Qrtr:	2013Q4		

--Details--

Treatment ID:	2
Treatment Process Code:	421
Treatment Process:	Hypochlorination, Post
Treatment Objective Code:	D
Treatment Objective:	Disinfection
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Treatment ID:	1
Treatment Process Code:	341

Treatment Process:	Filtration, Cartridge
Treatment Objective Code:	P
Treatment Objective:	Particulate removal
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	CA3600530001	Pop Cat 11 Cd:	2
Facility Name:	Santa Ana River	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	19-AUG-14	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	Yes	Phone No:	909-794-6724
Facility Type Cd:	RS	Phone Ext No:	-
Facility Type Desc:	Reservoir	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	SW	Wtr Tp Desc:	Surface water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-

Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	3
Submission Year:	2014	Validity Ind:	No
Submission Yr Qrtr:	2014Q3		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	CA3600530002	Pop Cat 11 Cd:	2
Facility Name:	Well 1	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	Yes	Phone No:	909-794-6724
Facility Type Cd:	WL	Phone Ext No:	-
Facility Type Desc:	Well	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	GW	Wtr Tp Desc:	Ground water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-

Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	1
Submission Year:	2016	Validity Ind:	No
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	2	Pop Cat 11 Cd:	2
Facility Name:	WELL 1	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K

Wells and Additional Sources Detail Report

Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	18-DEC-13	ORG Name:	Camp Arbolado
Primacy Agency:	California	Admin Name:	Suman Rama
Is Source Ind:	Yes	Phone No:	9097946724
Facility Type Cd:	WL	Phone Ext No:	-
Facility Type Desc:	Well	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	mfarrell@dph.sbcounty.gov
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	GW	Wtr Tp Desc:	Ground water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	U	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	4
Submission Year:	2013	Validity Ind:	No
Submission Yr Qrtr:	2013Q4		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-

Treatment Comments: -

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	1	Pop Cat 11 Cd:	2
Facility Name:	SANTA ANA RIVER	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	18-DEC-13	ORG Name:	Camp Arbolado
Primacy Agency:	California	Admin Name:	Suman Rama
Is Source Ind:	Yes	Phone No:	9097946724
Facility Type Cd:	IN	Phone Ext No:	-
Facility Type Desc:	Intake	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	mfarrell@dph.sbcounty.gov
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	SW	Wtr Tp Desc:	Surface water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	U	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	-
Is Wholesaler:	No	Sub Quarter:	4
Submission Year:	2013	Validity Ind:	No

Wells and Additional Sources Detail Report

Submission Yr Qrtr:	2013Q4
--Details--	
Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	43449	Pop Cat 11 Cd:	2
Facility Name:	DISTRIBUTION SYSTEM	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	No	Phone No:	909-794-6724
Facility Type Cd:	DS	Phone Ext No:	-
Facility Type Desc:	Distribution System/Zone	Alt Phone No:	-
Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	-	Avlblty Desc:	-
Water Type Code:	-	Wtr Tp Desc:	-
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water

Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Reported and accepted
Subms Sts Cd Vio:	Y	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	DST
Is Wholesaler:	No	Sub Quarter:	1
Submission Year:	2016	Validity Ind:	Yes
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NNW	0.91	4,799.40	246.86	SDWIS

PWS ID:	CA3600530	Pop Cat 11:	101-500
Facility ID:	43450	Pop Cat 11 Cd:	2
Facility Name:	SANTA ANA RIVER	Pop Cat 2:	<10,000
EPA Region Code:	09	Pop Cat 2 Cd:	1
EPA Region:	Region 9	Pop Cat 3:	<=3300
Season Begin Date:	01-01	Pop Cat 3 Cd:	1
Season End Date:	12-31	Pop Cat 4:	<10K
Deactivation Date:	-	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	-	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	01-APR-16	ORG Name:	_RAMA, SUMAN
Primacy Agency:	California	Admin Name:	_RAMA, SUMAN
Is Source Ind:	Yes	Phone No:	909-794-6724
Facility Type Cd:	IN	Phone Ext No:	-
Facility Type Desc:	Intake	Alt Phone No:	-

Activity Status Cd:	A	Fax No:	-
Activity Status:	Active	Email Addr:	-
Availability Code:	P	Avlblty Desc:	Permanent
Water Type Code:	SW	Wtr Tp Desc:	Surface water
DBPR Schd Ctg Cd:	-	DBPR Schd Ctg:	-
Facility Activity Cd:	A	Fac Activity:	Active
Filtrtn Status Cd:	-	Filt Stat Desc:	-
GW or SW Code:	SW	GW or SS:	Surface water
LT2 Sch Ctgry Cd:	-	LT2 Sched Ctg:	-
Owner Type Code:	P	Owner Type:	Private
PWS Type Code:	TNCWS	PWS Type:	Transient non-community system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SW	Primary Srce:	Surface water
Seller Treatmnt Cd:	-	Seller Trt Dsc:	-
Submsn Status Cd:	Y	Sub Stat Dsc:	Unreported
Subms Sts Cd Vio:	U	Pop Srvd Cnt:	500
Is Grant Eligible:	Yes	Srvc Cnctn Cnt:	1
Outstnding Perfrm:	-	Seller PWSID:	-
Outstndng Perf Dt:	-	Sllr PWS Nm:	-
Schl or Dycare:	No	CDS ID:	-
Source Treated Ind:	-	Country Code:	US
Src Wtr Protected:	-	Cntry Nm BTP:	-
Src Wtr Prot Dt:	-	State Code:	CA
NPM Candidate:	Yes	State Fac ID:	001
Is Wholesaler:	No	Sub Quarter:	1
Submission Year:	2016	Validity Ind:	No
Submission Yr Qrtr:	2016Q1		

--Details--

Treatment ID:	-
Treatment Process Code:	-
Treatment Process:	-
Treatment Objective Code:	-
Treatment Objective:	-
Treatment Plant City:	-
Treatment Plant State:	-
Treatment Plant Addr 1:	-
Treatment Plant Addr 2:	-
Treatment Plant Zip Code:	-
Treatment Comments:	-

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	NNE	0.46	2,425.81	265.84	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	

Wells and Additional Sources Detail Report

Organiz Name:	USGS California Water Science Center	Aquifer Name:	Other aquifers
Well Depth:	728	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	728	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:		Latitude:	33.9341798
Source Map Scale:	24000	Longitude:	-117.9861748
Monitoring Loc Name:	003S011W01P001S		
Monitoring Loc Identifier:	USGS-335603118590401		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070106		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	266		
Vertical Measure Unit:	feet		
Vertical Accuracy:	1.6		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from Digital Elevation Model		
Vert Coord Refer System:	NAVD88		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.81	4,275.99	215.17	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:		Aquifer Type:	
Well Depth Unit:		Country Code:	US
Well Hole Depth:	1298	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	19991013	Latitude:	33.9359556
Source Map Scale:	24000	Longitude:	-118.0001667
Monitoring Loc Name:	003S011W02KXXXS		
Monitoring Loc Identifier:	USGS-335609118000103		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			

Drainage Area Unit:	
Contrib Drainage Area:	
Contrib Drainage Area Unit:	
Horizontal Accuracy:	.5
Horizontal Accuracy Unit:	seconds
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)
Horiz Coord Refer System:	NAD83
Vertical Measure:	210
Vertical Measure Unit:	feet
Vertical Accuracy:	2.5
Vertical Accuracy Unit:	feet
Vertical Collection Mthd:	Interpolated from topographic map.
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.81	4,275.99	215.17	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	220	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	1298	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	19991013	Latitude:	33.9359556
Source Map Scale:	24000	Longitude:	-118.0001667
Monitoring Loc Name:	003S011W02K007S		
Monitoring Loc Identifier:	USGS-335609118000105		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	210		
Vertical Measure Unit:	feet		
Vertical Accuracy:	2.5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		

Vert Coord Refer System: NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.81	4,275.99	215.17	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	940	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	1298	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	19991013	Latitude:	33.9359556
Source Map Scale:	24000	Longitude:	-118.0001667
Monitoring Loc Name:	003S011W02K005S		
Monitoring Loc Identifier:	USGS-335609118000102		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	210		
Vertical Measure Unit:	feet		
Vertical Accuracy:	2.5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.81	4,275.99	215.17	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	470	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	1298	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	19991013	Latitude:	33.9359556

Source Map Scale:	24000	Longitude:	-118.0001667
Monitoring Loc Name:	003S011W02K006S		
Monitoring Loc Identifier:	USGS-335609118000104		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	210		
Vertical Measure Unit:	feet		
Vertical Accuracy:	2.5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.81	4,275.99	215.17	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	1280	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	1298	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	19991013	Latitude:	33.9359556
Source Map Scale:	24000	Longitude:	-118.0001667
Monitoring Loc Name:	003S011W02K004S		
Monitoring Loc Identifier:	USGS-335609118000101		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		

Horiz Coord Refer System:	NAD83
Vertical Measure:	210
Vertical Measure Unit:	feet
Vertical Accuracy:	2.5
Vertical Accuracy Unit:	feet
Vertical Collection Mthd:	Interpolated from topographic map.
Vert Coord Refer System:	NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	NW	0.81	4,285.80	214.26	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	Other aquifers
Well Depth:	945	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	946	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:		Latitude:	33.9358464
Source Map Scale:	24000	Longitude:	-118.000342
Monitoring Loc Name:	003S011W02K001S		
Monitoring Loc Identifier:	USGS-335609118595801		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	18070106		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	214		
Vertical Measure Unit:	feet		
Vertical Accuracy:	4.3		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from Digital Elevation Model		
Vert Coord Refer System:	NAVD88		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	NW	0.82	4,329.10	212.47	FED USGS

Organiz Identifier:	USGS-CA	Formation Type:	

Wells and Additional Sources Detail Report

Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:	620	Aquifer Type:	
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	640	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	LOS ANGELES
Construction Date:	20000124	Latitude:	33.9358333
Source Map Scale:	24000	Longitude:	-118.0005556
Monitoring Loc Name:	003S011W02K008S		
Monitoring Loc Identifier:	USGS-335609118000201		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:			
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	.5		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Mapping grade GPS unit (handheld accuracy range 12 to 40 ft)		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	210		
Vertical Measure Unit:	feet		
Vertical Accuracy:	2.5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Oil and Gas Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	-	0.00	0.00	253.93	OGW

API No:	03708674	Operator Code:	A2450
All Well Key:		Operator Name:	Phillips Petroleum Co.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	12
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB

Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.927484000000000
Release Date:		Long83:	-117.988752000000010
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708674		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	W	0.10	535.41	256.71	OGW

API No:	03708661	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	12
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.926789999999997
Release Date:		Long83:	-117.991902000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708661		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	NW	0.20	1,048.05	248.41	OGW

Wells and Additional Sources Detail Report

API No:	03708670	Operator Code:	R3900
All Well Key:		Operator Name:	Rothschild Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	12
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.929758000000000
Release Date:		Long83:	-117.992542000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708670		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	WSW	0.24	1,249.34	253.02	OGW

API No:	03708658	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	12
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000

Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.926215999999997
Release Date:		Long83:	-117.994206000000010
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708658		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	W	0.27	1,428.30	242.59	OGW

API No:	03708665	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.927854000000004
Release Date:		Long83:	-117.994928000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708665		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	N	0.34	1,803.56	254.57	OGW

API No:	03705143	Operator Code:	00489
All Well Key:		Operator Name:	Associated Piping & Engineering

			Co.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Any Field
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	1
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	Yes	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.932710000000000
Release Date:		Long83:	-117.989782000000010
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03705143		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	WSW	0.35	1,862.34	231.66	OGW

API No:	03708660	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	

BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.925662000000003
Release Date:		Long83:	-117.996200000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708660		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	W	0.39	2,033.50	241.65	OGW

API No:	03708662	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.927622999999997
Release Date:		Long83:	-117.996932000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708662		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	WSW	0.46	2,417.89	239.92	OGW

API No:	03708663	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	

Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.925055999999998
Release Date:		Long83:	-117.997951000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708663		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	W	0.49	2,610.74	243.62	OGW

API No:	03708664	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.926431000000001

Release Date:		Long83:	-117.998763999999990
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708664		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	W	0.54	2,831.77	232.71	OGW

API No:	03708671	Operator Code:	R3900
All Well Key:		Operator Name:	Rothschild Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.928559000000000
Release Date:		Long83:	-117.999495999999990
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708671		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	SE	0.55	2,879.20	291.34	OGW

API No:	03706192	Operator Code:	U0200
All Well Key:		Operator Name:	Union Oil Company of California
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Any Field

Wells and Additional Sources Detail Report

Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	12
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	Yes	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.920433000000003
Release Date:		Long83:	-117.982516000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03706192		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	SW	0.53	2,795.36	235.41	OGW

API No:	03708673	Operator Code:	A2450
All Well Key:		Operator Name:	Phillips Petroleum Co.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	Yes	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.919997000000002
Release Date:		Long83:	-117.995607000000010
SPUD Date:		Source83:	hud

ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708673		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	W	0.61	3,214.64	241.56	OGW

API No:	03708666	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.925393000000000
Release Date:		Long83:	-118.000648000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708666		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	SW	0.61	3,225.32	252.52	OGW

API No:	03709168	Operator Code:	C5640
All Well Key:		Operator Name:	Chevron U.S.A. Inc.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area

Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.920029999999997
Release Date:		Long83:	-117.997781000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03709168		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	WNW	0.69	3,665.85	218.83	OGW

API No:	03708672	Operator Code:	S3100
All Well Key:		Operator Name:	SWEPI, LP
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.930401000000003
Release Date:		Long83:	-118.001845000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	

Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps
Location:	
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708672

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	WNW	0.71	3,767.37	219.33	OGW

API No:	03708669	Operator Code:	R3900
All Well Key:		Operator Name:	Rothschild Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.929882999999997
Release Date:		Long83:	-118.002349000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708669		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	WSW	0.73	3,848.86	236.92	OGW

API No:	03708667	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	

OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.924214999999997
Release Date:		Long83:	-118.002564000000010
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708667		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	WSW	0.74	3,893.60	230.88	OGW

API No:	03708659	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.922198000000002
Release Date:		Long83:	-118.002018000000010
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			

Wells and Additional Sources Detail Report

URL: https://secure.conservation.ca.gov/WellSearch/Details?api=03708659

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	W	0.75	3,983.94	222.51	OGW

API No:	03708668	Operator Code:	P4800
All Well Key:		Operator Name:	Pyramid Oil Company
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.927024000000003
Release Date:		Long83:	-118.003349000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03708668		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	NE	0.76	4,020.67	296.84	OGW

API No:	03705225	Operator Code:	09649
All Well Key:		Operator Name:	T. W. Branch
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Any Field
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	1

Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	Yes	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.936686000000002
Release Date:		Long83:	-117.980546000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03705225		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
29	WSW	0.86	4,531.03	183.30	OGW

API No:	03709169	Operator Code:	C5640
All Well Key:		Operator Name:	Chevron U.S.A. Inc.
Well No:		Operator St:	
Well Status:	B	Field Code:	
Well Type:	OG	Field Name:	Leffingwell (ABD)
Well Symbol:		Area Code:	
Well Stat Desc:	Buried	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	11
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	No	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.920298000000003
Release Date:		Long83:	-118.003275000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03709169		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
31	NNE	0.90	4,746.99	309.76	OGW

API No:	03705581	Operator Code:	05366
All Well Key:		Operator Name:	Livingston Drilling & Dev. Co.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Any Field
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	1
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	11W
Dryhole:	Yes	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.939568999999999
Release Date:		Long83:	-117.981696000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=03705581		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	SE	0.94	4,952.68	307.52	OGW

API No:	05901182	Operator Code:	C5640
All Well Key:		Operator Name:	Chevron U.S.A. Inc.
Well No:		Operator St:	
Well Status:	P	Field Code:	
Well Type:	OG	Field Name:	Any Field
Well Symbol:		Area Code:	
Well Stat Desc:	Plugged and Abandoned	Area Name:	Any Area
Well Sym Desc:		District:	1
Well Type Desc:		Geo District:	
OID:	-1	County APIC:	
Elevation:		Section:	7
Total Depth:	0.000000000000000	Township:	03S
Red Can Flag:		Range:	10W

Wells and Additional Sources Detail Report

Dryhole:	Yes	Base Meridian:	SB
Conf Well:	No	Directional:	
Dir Drill:	No	Redrill:	0.000000000000000
Hyd Frac:		Lat27:	
BLM Well:	No	Long27:	
EPA Well:	No	Lat83:	33.918246000000003
Release Date:		Long83:	-117.975544000000000
SPUD Date:		Source83:	hud
ABD Date:		Confidential:	
Comp Date:		Comments:	
Source83 Desc:	Heads Up Digitized - Coordinates generated from scanned, geo-referenced, static scale, Mylar maps		
Location:			
URL:	https://secure.conservation.ca.gov/WellSearch/Details?api=05901182		

Water Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NW	0.81	4,290.01	215.17	WATER WELLS

Site Code:	339360N1180002W002	County Name:	Los Angeles
State Well No:	03S11W02K007S	Latitude:	33.936003
CASGEM Station ID:	46603	Longitude:	-118.000175
Station Use Desc:	Observation	Basin ID:	185
Loc Well Designate:	Whittier1_5	Basin CD:	4-011.04
Total Depth (ft):	220	Basin Desc:	Central
Is Voluntary Rprt:	No	Basin Region Code:	4
Completion Rpt No:	767049	Basin Region Desc:	South Coast
Loc Method:	Surveyed to a benchmark	Basin Region Actv:	Y
Loc Accuracy:	2.5 ft	Basin Region Order:	4

--Details--

Meas Date:	11/8/2011 12:00:00	Elevation ID:	1824876
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.91	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/31/2003 12:00:00	Elevation ID:	1824832
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.55	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2005 12:00:00	Elevation ID:	1824841
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	15.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	5/27/2004 12:00:00	Elevation ID:	1824834
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.25	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	

WS Reading:	0		
Meas Date:	11/1/2002 12:00:00	Elevation ID:	1824825
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	20.03	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	3/27/2003 12:00:00	Elevation ID:	1824827
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.5	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	9/27/2001 12:00:00	Elevation ID:	1824819
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.32	Coop Org Name:	Water Replenishment District of

			Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/28/2008 12:00:00	Elevation ID:	1824855
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.17	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/16/2008 12:00:00	Elevation ID:	1824856
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.28	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2001 12:00:00	Elevation ID:	1824815
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California

RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.39	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/2/2002 12:00:00	Elevation ID:	1824823
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.7	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/15/2014 9:32:00	Elevation ID:	2014750
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	20.73	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/22/2011 12:00:00	Elevation ID:	1824872
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043

GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.3	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/18/2015 14:19:00	Elevation ID:	2143051
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	21.34	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/14/2016 14:39:00	Elevation ID:	2198862
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	22.99	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/5/2005 12:00:00	Elevation ID:	1824840
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y

Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	15.46	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/25/2007 12:00:00	Elevation ID:	1824851
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.62	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	5/2/2011 12:00:00	Elevation ID:	1824873
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.04	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/14/2012 13:47:00	Elevation ID:	68068
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest

			hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.87	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/18/2012 13:42:00	Elevation ID:	92322
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.09	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/11/2014 13:25:00	Elevation ID:	2109665
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	20.87	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/14/2016 11:28:00	Elevation ID:	2183185
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1

Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	22.48	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/17/2015 8:22:00	Elevation ID:	2156996
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	21.94	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/22/2015 13:32:00	Elevation ID:	2177994
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	22.35	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/30/2004 12:00:00	Elevation ID:	1824838
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement

Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.99	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/28/2005 12:00:00	Elevation ID:	1824843
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	15.93	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/27/2005 12:00:00	Elevation ID:	1824844
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.26	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/25/2007 12:00:00	Elevation ID:	1824852
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.98	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	11/8/2007 12:00:00	Elevation ID:	1824853
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.23	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/3/2000 12:00:00	Elevation ID:	1824810
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.3	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	

WS Reading:	0		
Meas Date:	11/12/2001 12:00:00	Elevation ID:	1824820
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.6	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	9/30/2002 12:00:00	Elevation ID:	1824824
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.89	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	4/23/2003 12:00:00	Elevation ID:	1824828
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.39	Coop Org Name:	Water Replenishment District of

			Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/7/2005 12:00:00	Elevation ID:	1824839
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	15.19	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/22/2009 12:00:00	Elevation ID:	1824862
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.48	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/18/2013 9:56:00	Elevation ID:	1684568
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California

RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.17	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/8/2000 12:00:00	Elevation ID:	1824811
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.44	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/13/2001 12:00:00	Elevation ID:	1824816
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.46	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/23/2009 12:00:00	Elevation ID:	1824865
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043

GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/26/2011 12:00:00	Elevation ID:	1824875
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.8	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/11/2013 11:35:00	Elevation ID:	1735572
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.73	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/18/2013 13:06:00	Elevation ID:	1817884
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y

Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.69	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/17/2015 12:53:00	Elevation ID:	2119236
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	20.81	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/15/2016 14:12:00	Elevation ID:	2224362
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	24	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2013 9:05:00	Elevation ID:	1795710
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest

			hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.21	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/31/2004 12:00:00	Elevation ID:	1824833
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.03	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/27/2004 12:00:00	Elevation ID:	1824836
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.94	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/2/2008 12:00:00	Elevation ID:	1824857
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1

Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.79	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/31/2002 12:00:00	Elevation ID:	1824826
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/29/2017 12:48:00	Elevation ID:	2236143
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	21.18	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/26/2003 12:00:00	Elevation ID:	1824830
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement

Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.14	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/27/2006 12:00:00	Elevation ID:	1824848
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.78	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/24/2009 12:00:00	Elevation ID:	1824861
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.36	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	1/4/2008 12:00:00	Elevation ID:	1824854
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.11	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/31/2008 12:00:00	Elevation ID:	1824859
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.58	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/15/2010 12:00:00	Elevation ID:	1824871
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.36	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	

WS Reading:	0		
Meas Date:	12/21/2011 11:20:00	Elevation ID:	37307
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.89	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/25/2014 11:09:00	Elevation ID:	1991210
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	20.37	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2016 11:30:00	Elevation ID:	2219119
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	23.59	Coop Org Name:	Water Replenishment District of

			Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	6/15/2012 13:04:00	Elevation ID:	56272
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.23	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	8/14/2000 12:00:00	Elevation ID:	1824812
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.78	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		
Meas Date:	3/29/2002 12:00:00	Elevation ID:	1824822
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California

RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.11	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/15/2017 12:33:00	Elevation ID:	2257493
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	21.63	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/6/2001 12:00:00	Elevation ID:	1824817
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.82	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/12/2001 12:00:00	Elevation ID:	1824818
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043

GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.15	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	1/5/2000 12:00:00	Elevation ID:	1824809
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.04	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/27/2003 12:00:00	Elevation ID:	1824831
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.28	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/1/2004 12:00:00	Elevation ID:	1824835
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y

Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.46	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2006 12:00:00	Elevation ID:	1824845
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.07	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2010 12:00:00	Elevation ID:	1824867
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.26	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/27/2000 12:00:00	Elevation ID:	1824813
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest

			hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.06	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/28/2000 12:00:00	Elevation ID:	1824814
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.32	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2006 12:00:00	Elevation ID:	1824847
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.48	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/30/2008 12:00:00	Elevation ID:	1824860
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1

Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.18	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/26/2001 12:00:00	Elevation ID:	1824821
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.75	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/24/2010 12:00:00	Elevation ID:	1824868
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.71	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/20/2012 13:11:00	Elevation ID:	54982
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement

Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.05	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	1/4/2007 12:00:00	Elevation ID:	1824849
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.07	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/12/2014 14:01:00	Elevation ID:	1881199
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.64	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/15/2008 12:00:00	Elevation ID:	1824858
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.27	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/28/2011 12:00:00	Elevation ID:	1824874
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.27	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/26/2003 12:00:00	Elevation ID:	1824829
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.54	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	

WS Reading:	0		
Meas Date:	6/30/2009 12:00:00	Elevation ID:	1824863
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.95	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/29/2009 12:00:00	Elevation ID:	1824866
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.76	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2010 12:00:00	Elevation ID:	1824869
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.15	Coop Org Name:	Water Replenishment District of

			Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/28/2004 12:00:00	Elevation ID:	1824837
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	19.51	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/6/2007 12:00:00	Elevation ID:	1824850
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	17.27	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2005 12:00:00	Elevation ID:	1824842
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California

RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	15.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/28/2006 12:00:00	Elevation ID:	1824846
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	16.07	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/2/2009 12:00:00	Elevation ID:	1824864
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.41	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/28/2010 12:00:00	Elevation ID:	1824870
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043

GS Elevation:	217.63	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.88	Coop Agcy Org ID:	5043
RP Reading:	18.4	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	NW	0.82	4,304.66	214.91	WATER WELLS

Site Code:	339360N1180002W001	County Name:	Los Angeles
State Well No:	03S11W02K008S	Latitude:	33.936001
CASGEM Station ID:	46602	Longitude:	-118.000246
Station Use Desc:	Observation	Basin ID:	185
Loc Well Designate:	Whittier1_3	Basin CD:	4-011.04
Total Depth (ft):	620	Basin Desc:	Central
Is Voluntary Rprt:	No	Basin Region Code:	4
Completion Rpt No:	767050	Basin Region Desc:	South Coast
Loc Method:	Surveyed to a benchmark	Basin Region Actv:	Y
Loc Accuracy:	2.5 ft	Basin Region Order:	4

--Details--

Meas Date:	1/4/2008 12:00:00	Elevation ID:	1824786
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	100.1	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/20/2012 13:01:00	Elevation ID:	54981
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft

Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.12	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/15/2012 13:10:00	Elevation ID:	56273
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	101.68	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/26/2003 12:00:00	Elevation ID:	1824762
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.99	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/31/2004 12:00:00	Elevation ID:	1824765
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot

Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.21	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	5/27/2004 12:00:00	Elevation ID:	1824766
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.86	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/28/2008 12:00:00	Elevation ID:	1824787
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	100.08	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/15/2008 12:00:00	Elevation ID:	1824790
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES

Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.23	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/2/2009 12:00:00	Elevation ID:	1824796
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	104.9	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/2/2002 12:00:00	Elevation ID:	1824755
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.62	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/27/2003 12:00:00	Elevation ID:	1824763
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y

Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.34	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/15/2014 9:35:00	Elevation ID:	2014749
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	112.1	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/14/2016 14:35:00	Elevation ID:	2198863
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	120.32	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/7/2005 12:00:00	Elevation ID:	1824771

Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	104.53	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/28/2005 12:00:00	Elevation ID:	1824775
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.26	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/22/2009 12:00:00	Elevation ID:	1824794
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	103.31	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/17/2015 12:57:00	Elevation ID:	2119235
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	115.12	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/29/2002 12:00:00	Elevation ID:	1824754
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.08	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/1/2004 12:00:00	Elevation ID:	1824767
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.8	Coop Org Name:	Water Replenishment District of Southern California

Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/2/2008 12:00:00	Elevation ID:	1824789
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	101.03	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/30/2008 12:00:00	Elevation ID:	1824792
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.47	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/30/2009 12:00:00	Elevation ID:	1824795
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043

RP Reading:	103.95	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/28/2010 12:00:00	Elevation ID:	1824802
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.93	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/8/2000 12:00:00	Elevation ID:	1824743
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.71	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/6/2007 12:00:00	Elevation ID:	1824782
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of

			Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	97.74	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/25/2007 12:00:00	Elevation ID:	1824784
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99.34	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/16/2008 12:00:00	Elevation ID:	1824788
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	100.36	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/23/2009 12:00:00	Elevation ID:	1824797
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft

Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.3	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/29/2009 12:00:00	Elevation ID:	1824798
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.18	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/18/2015 14:23:00	Elevation ID:	2143050
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	116.02	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/15/2016 14:08:00	Elevation ID:	2224363
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot

Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	122.23	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/15/2001 12:00:00	Elevation ID:	1824747
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.32	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/26/2003 12:00:00	Elevation ID:	1824761
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.42	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/29/2004 12:00:00	Elevation ID:	1824769
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES

Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.6	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/27/2005 12:00:00	Elevation ID:	1824776
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	101.93	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	1/4/2007 12:00:00	Elevation ID:	1824781
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/24/2009 12:00:00	Elevation ID:	1824793
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y

Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.53	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2010 12:00:00	Elevation ID:	1824799
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.49	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/17/2015 9:26:00	Elevation ID:	2156995
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	117.18	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/27/2003 12:00:00	Elevation ID:	1824759

Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.15	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/5/2005 12:00:00	Elevation ID:	1824772
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.56	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/24/2010 12:00:00	Elevation ID:	1824800
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.6	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2010 12:00:00	Elevation ID:	1824801
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.15	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/18/2013 9:00:00	Elevation ID:	1684569
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	103.76	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/11/2014 13:28:00	Elevation ID:	2109667
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	113.86	Coop Org Name:	Water Replenishment District of Southern California

Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	11/8/2011 12:00:00	Elevation ID:	1824808
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	103.18	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/6/2001 12:00:00	Elevation ID:	1824749
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.37	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/26/2001 12:00:00	Elevation ID:	1824753
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043

RP Reading:	108.25	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/11/2013 11:30:00	Elevation ID:	1735575
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	104.56	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/28/2000 12:00:00	Elevation ID:	1824746
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	109.35	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/28/2006 12:00:00	Elevation ID:	1824778
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of

			Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99.32	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	8/14/2000 12:00:00	Elevation ID:	1824744
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.68	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/12/2014 14:05:00	Elevation ID:	1881200
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	109	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/14/2016 11:18:00	Elevation ID:	2183184
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft

Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	119.61	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	11/8/2007 12:00:00	Elevation ID:	1824785
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99.35	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/15/2010 12:00:00	Elevation ID:	1824803
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/21/2011 11:24:00	Elevation ID:	37306
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot

Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.56	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/31/2002 12:00:00	Elevation ID:	1824758
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2006 12:00:00	Elevation ID:	1824777
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	100.25	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2013 9:00:00	Elevation ID:	1795711
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES

Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.99	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	11/12/2001 12:00:00	Elevation ID:	1824752
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.49	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/30/2002 12:00:00	Elevation ID:	1824756
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.47	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/30/2001 12:00:00	Elevation ID:	1824748
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y

Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.06	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/27/2004 12:00:00	Elevation ID:	1824768
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.2	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/22/2015 13:26:00	Elevation ID:	2177993
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	118.94	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/29/2017 12:51:00	Elevation ID:	2236145

Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	121.44	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/27/2006 12:00:00	Elevation ID:	1824780
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99.68	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/23/2003 12:00:00	Elevation ID:	1824760
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.9	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/30/2004 12:00:00	Elevation ID:	1824770
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.31	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2006 12:00:00	Elevation ID:	1824779
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	99.44	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	5/2/2011 12:00:00	Elevation ID:	1824805
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	104.65	Coop Org Name:	Water Replenishment District of Southern California

Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2005 12:00:00	Elevation ID:	1824774
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	101.74	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/28/2011 12:00:00	Elevation ID:	1824806
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	104.21	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/14/2012 13:41:00	Elevation ID:	68067
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043

RP Reading:	103.28	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	4/3/2000 12:00:00	Elevation ID:	1824742
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	109.21	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/25/2014 11:14:00	Elevation ID:	1991209
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	110.51	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/15/2017 12:38:00	Elevation ID:	2257492
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of

			Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	121.08	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/27/2000 12:00:00	Elevation ID:	1824745
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	109.08	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	7/12/2001 12:00:00	Elevation ID:	1824750
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.35	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/27/2001 12:00:00	Elevation ID:	1824751
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft

Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	108.03	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	11/1/2002 12:00:00	Elevation ID:	1824757
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.65	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/31/2003 12:00:00	Elevation ID:	1824764
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	106.62	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/28/2005 12:00:00	Elevation ID:	1824773
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot

Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	101.74	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	10/31/2008 12:00:00	Elevation ID:	1824791
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	102.34	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	3/22/2011 12:00:00	Elevation ID:	1824804
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	105.31	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	6/25/2007 12:00:00	Elevation ID:	1824783
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES

Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	98.1	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/26/2011 12:00:00	Elevation ID:	1824807
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	103.57	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/18/2012 13:36:00	Elevation ID:	92323
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	103.4	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	12/18/2013 13:10:00	Elevation ID:	1817885
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y

Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	107.88	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Meas Date:	9/13/2016 11:00:00	Elevation ID:	2219120
Meas Method ID:	1	Elev Meas Mtd Desc:	Electric sounder measurement
Meas Accuracy ID:	2	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	1
Meas Issue Code:		Elev Meas Mtd Cd:	ES
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy to nearest hundredth of a foot
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	0.01 Ft
Meas Issue Tp Ord:		Org ID:	5043
GS Elevation:	217.48	Org Name:	Water Replenishment District of Southern California
RP Elevation:	217.98	Coop Agcy Org ID:	5043
RP Reading:	121.1	Coop Org Name:	Water Replenishment District of Southern California
Casgem Reading:	Y	Comments:	
WS Reading:	0		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	NW	0.85	4,490.96	208.18	WATER WELLS

Site Code:	339360N1180011W002	County Name:	Los Angeles
State Well No:	03S11W02K005S	Latitude:	33.936
CASGEM Station ID:	3908	Longitude:	-118.0011
Station Use Desc:	Unknown	Basin ID:	185
Loc Well Designate:		Basin CD:	4-011.04
Total Depth (ft):		Basin Desc:	Central
Is Voluntary Rprt:	Yes	Basin Region Code:	4
Completion Rpt No:		Basin Region Desc:	South Coast
Loc Method:	Unknown	Basin Region Actv:	Y
Loc Accuracy:	Unknown	Basin Region Order:	4

--Details--

Meas Date:	12/15/1999 0:00:00	Elevation ID:	1506852
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown

Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	129.65	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	3/2/2000 0:00:00	Elevation ID:	1506853
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	104.62	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	3/15/2000 0:00:00	Elevation ID:	1506854
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	104.48	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	NW	0.85	4,490.96	208.18	WATER WELLS

Wells and Additional Sources Detail Report

Site Code:	339360N1180011W001	County Name:	Los Angeles
State Well No:	03S11W02K004S	Latitude:	33.936
CASGEM Station ID:	26423	Longitude:	-118.0011
Station Use Desc:	Unknown	Basin ID:	185
Loc Well Designate:		Basin CD:	4-011.04
Total Depth (ft):		Basin Desc:	Central
Is Voluntary Rprt:	Yes	Basin Region Code:	4
Completion Rpt No:		Basin Region Desc:	South Coast
Loc Method:	Unknown	Basin Region Actv:	Y
Loc Accuracy:	Unknown	Basin Region Order:	4

--Details--

Meas Date:	3/15/2000 0:00:00	Elevation ID:	1506851
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	104.4	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	3/2/2000 0:00:00	Elevation ID:	1506850
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	104.63	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	12/15/1999 0:00:00	Elevation ID:	1506849
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK

Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	146.18	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	NW	0.85	4,490.96	208.18	WATER WELLS

Site Code:	339360N1180011W003	County Name:	Los Angeles
State Well No:	03S11W02K006S	Latitude:	33.936
CASGEM Station ID:	26424	Longitude:	-118.0011
Station Use Desc:	Unknown	Basin ID:	185
Loc Well Designate:		Basin CD:	4-011.04
Total Depth (ft):		Basin Desc:	Central
Is Voluntary Rprt:	Yes	Basin Region Code:	4
Completion Rpt No:		Basin Region Desc:	South Coast
Loc Method:	Unknown	Basin Region Actv:	Y
Loc Accuracy:	Unknown	Basin Region Order:	4

--Details--

Meas Date:	12/15/1999 0:00:00	Elevation ID:	1506855
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	112.65	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	3/2/2000 0:00:00	Elevation ID:	1506856
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown

Wells and Additional Sources Detail Report

Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	111.1	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Meas Date:	3/15/2000 0:00:00	Elevation ID:	1506857
Meas Method ID:	7	Elev Meas Mtd Desc:	Unknown
Meas Accuracy ID:	5	Elev Meas Mtd Actv:	Y
Meas Issue ID:		Elev Meas Mtd Order:	7
Meas Issue Code:		Elev Meas Mtd Cd:	UNK
Meas Issue Desc:		Elev Accuracy Desc:	Water level accuracy is unknown
Meas Issue Actv:		Elev Accuracy Actv:	Y
Meas Issue Class:		Elev Accuracy Cd:	Unknown
Meas Issue Tp Ord:		Org ID:	1
GS Elevation:	212.43	Org Name:	Department of Water Resources
RP Elevation:	212.43	Coop Agcy Org ID:	5167
RP Reading:	110.74	Coop Org Name:	United States Geological Survey
Casgem Reading:	N	Comments:	
WS Reading:	0		

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *LOS ANGELES* County: **2**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *LOS ANGELES* County

No Measures/Homes:	69
Geometric Mean:	0.4
Arithmetic Mean:	0.7
Median:	0.5
Standard Deviation:	1
Maximum:	5.6
% >4 pCi/L:	1
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the EPA/State Residential Radon Survey of California conducted during 1989-90. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

U.S. Fish & Wildlife Service Wetland Data — **US WETLAND**

The U.S. Fish & Wildlife Service Wetland layer represents the approximate location and type of wetlands and deepwater habitats in the United States.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

State Sources

Oil and Gas Wells — **OGW**

A list of Oil and Gas well locations. This is provided by California's Department of Conservation Division of

Oil, Gas and Geothermal Resources.

Public Water Supply Wells **PWSW**

List of community water supply wells in California. This data was made available by California Department of Water Resources, Division of Statewide Integrated Water Management, who indicates that the management of the data in an ongoing project, and some county data is not represented. Location information is provided using the Public Land Survey System (PLSS) and is subject to the accuracy limitations inherent to the PLSS system.

Water Wells **WATER WELLS**

A list of water wells maintained by the Department of Water Resources (DWR) Water Data Library.

Well Investigation Program Case List **WIP**

The Well Investigation Program (WIP) was developed by the State Water Resources Control Board (SWRCB) to locate, assess and remediate sources of solvent contamination impacting drinking water wells. This list contains WIP cases (active and historical) for the San Gabriel and San Fernando Valley area and was provided by the Los Angeles Regional Water Quality Control Board.

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Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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Appendix F - Regulatory Records

Leighton

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

April 9, 2018

Mr. Glenn Castillo
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA 91311
VIA EMAIL: Glenn.Castillo@dtsc.ca.gov

Subject: **File Review**

Dear Mr. Castillo:

Leighton and Associates, Inc. is requesting information for the property located at:

- **11537 Grovedale Drive, Whittier, California 90604**

The Assessor Parcel Number is: **8039-014-027.**

We are requesting information concerning hazardous waste/materials, underground storage tanks, leaking underground storage tanks, cleanups, inspections, violations, or any other environmental sensitive spills, responses or incidents. Thank you for your assistance.

Sincerely,

LEIGHTON AND ASSOCIATES, INC.

Brian Pierce, PG
Project Geologist
(858) 300-8495
bpierce@leightongroup.com

Department of Toxic Substances Control

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

April 10, 2018

Mr. Brian Pierce, PG
Leighton and Associates, Inc.
3934 Murphy Canyon Road, Suite B 205
San Diego, CA 92123-4425

11537 Grovedale Drive, Whittier, CA 90604
APN: 8039-014-027
PR3-041018-02

Dear Mr. Pierce:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

We would like to inform you about EnviroStor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6521.

Sincerely,

Robert Hardison

Robert Hardison/cs
Regional Records Coordinator

Printed on Recycled Paper

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

April 9, 2018

Ms. Jone Barrio
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630
VIA EMAIL: Jone.Barrio@dtsc.ca.gov

Subject: **File Review**

Dear Ms. Barrio:

Leighton and Associates, Inc. is requesting information for the property located at:

- **11537 Grovedale Drive, Whittier, California 90604**

The Assessor Parcel Number is: **8039-014-027.**

We are requesting information concerning hazardous waste/materials, underground storage tanks, leaking underground storage tanks, cleanups, inspections, violations, or any other environmental sensitive spills, responses or incidents. Thank you for your assistance.

Sincerely,

LEIGHTON AND ASSOCIATES, INC.



Brian Pierce, PG
Project Geologist
(858) 300-8495
bpierce@leightongroup.com

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

April 11, 2018

Brian Pierce
LEIGHTON CONSULTING
3934 Murphy Canyon Road, #B-205
San Diego, CA 92123

11537 GROVEDALE DRIVE, WHITTIER, CA
PR4-041018-6

Dear Mr. Pierce:

The Department of Toxic Substances Control has received your letter to review records under the Public Records Act.

After a thorough review of our files we have found that, no such records exist at this office pertaining to the site/facility referenced above.

We would like to inform you about EnviroStor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available at each DTSC Regional File Room Office for use by community members to view EnviroStor.

If you have any questions, would like further information regarding your request, please contact our Regional Records Coordinator at (714) 484-5337.

Sincerely,

Julie Johnson

Julie Johnson
Regional Records Coordinator

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee , Director
1001 I Street
P.O. Box 806
Sacramento , CA 958120806

Edmund G. Brown Jr.
Governor

Facility Search Results

Selection Criteria:

Facility:
Search on: Physical Address
Street: Grovedale
Zip: 90604
Status: Active and Inactive
Sort Direction: asc
Sorted By: EPA ID
Records Found: 7

EPA ID Number	Name	Address	City	Zip
CAC001172936	LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR	WHITTIER	906040000
CAC002699356	ARCHIE HASKINS	12146 GROVEDALE DR	WHITTIER	90604
CAC002734620	KENNETH MC COID	11440 GROVEDALE DR	WHITTIER	906043523
CAC002810194	LORENZO ORTEGA	11520 GROVEDALE DR	WHITTIER	906043634
CAC002863375	KEITH HUBBERT	11614 GROVEDALE DR	WHITTIER	906043636
CAC002931805	EPPERLY, DALE	11703 GROVEDALE DRIVE	WHITTIER	90604
CAL000195667	LOWELL JOINT SCHOOL DISTRICT	11537 GROVEDALE DR	WHITTIER	906040000

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Report Generation Date: 04/10/2018

California Waste Code by Year Matrix

ID Number: CAL000195667
Entity Type: Generator

2006 ▾ 2018 ▾ Select Years

Calif. Code	Description	2006	2007	2008	2009	2010	2011	2012	2013	2015	2016
122	ALKALINE SOLUTION (PH>=12.5) W/O METALS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02085	0.02085	0.00000
134	AQ SOL (2 < PH < 12.5) W ORG RESIDUES < 10%	0.08400	0.00000	0.00000	1.09200	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
151	ASBESTOS-CONTAINING WASTE	0.00000	0.00000	0.00000	0.00000	0.20000	0.50000	0.20000	0.10000	0.20000	0.12500
181	OTHER INORGANIC SOLID WASTE	0.00000	0.00000	0.00000	0.03000	0.01000	0.00000	0.00000	0.15000	0.05000	0.20750
212	OXYGENATED SOLVENTS	0.14000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
213	HYDROCARBON SOLVENTS	0.00000	0.86500	0.24500	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
214	UNSPECIFIED SOLVENT MIXTURE	0.00000	0.00000	0.00000	0.05000	0.19800	0.05400	0.01080	0.03600	0.01800	0.03440

221	WASTE OIL AND MIXED OIL	0.00000	0.00000	0.00000	0.00000	0.34200	0.45600	0.00000	0.00000	0.00000	0.00000
223	UNSPECIFIED OIL-CONTAINING WASTE	0.00000	0.00000	0.00000	0.00000	0.00000	0.06255	0.00000	0.00000	0.00000	0.00000
291	LATEX WASTE	0.00000	0.00000	0.35425	0.00000	0.00000	0.00000	0.12510	0.00000	0.00000	0.55870
343	UNSPECIFIED ORGANIC LIQUID MIXTURE	0.00000	0.00000	0.17000	0.00000	0.00000	0.00000	0.00000	0.00000	0.18700	0.00000
352	OTHER ORGANIC SOLIDS	0.00000	0.00000	0.01000	0.00000	0.00000	0.00000	0.00500	0.12510	0.00000	0.00000
461	PAINT SLUDGE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.05000	0.00000	0.00000
481	TETRAETHYL LEAD SLUDGE	0.00000	0.00000	0.00000	0.00000	0.10000	0.00000	0.00000	0.00000	0.00000	0.00000
541	PHOTOCHEMICALS / PHOTOPROCESSING WASTE	0.08757	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
791	LIQUIDS W PH<=2	0.00000	0.00000	0.00000	0.00000	0.01251	0.00000	0.00000	0.00000	0.00000	0.00000
	Grand Totals	**0.31157**	**0.86500**	**0.77925**	**1.17200**	**0.86251**	**1.07255**	**0.34090**	**0.48195**	**0.47585**	**0.92560**

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Report Generation Date: 04/10/2018

RCRA Waste Code by Year Matrix

ID Number: **CAL000195667**
Entity Type: **Generator**

2006 ▾ 2018 ▾ Select Years

RCRA Code	Federal Waste Description	2006	2007	2008	2009	2010	2011	2012	2013	2015	2016
	Blank/Unknown	0.08400	0.00000	0.36425	0.03000	0.64200	1.01855	0.33010	0.42510	0.25000	0.88370
D001	Ignitable	0.00000	0.69500	0.41500	1.09200	0.19800	0.05400	0.01080	0.03600	0.20500	0.03440
D002	Corrosives	0.00000	0.00000	0.00000	0.00000	0.01251	0.00000	0.00000	0.02085	0.02085	0.00000
D011	Silver	0.08757	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
D018	Benzene	0.14000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
D035	Methyl ethyl ketone	0.00000	0.07500	0.00000	0.05000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
F003	Non-halogenated solvents	0.00000	0.00000	0.00000	0.00000	0.01000	0.00000	0.00000	0.00000	0.00000	0.00750

F005	Non-halogenated solvents	0.00000	0.09500	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Grand Totals	**0.31157**	**0.86500**	**0.77925**	**1.17200**	**0.86251**	**1.07255**	**0.34090**	**0.48195**	**0.47585**	**0.92560**

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Report Generation Date: 04/10/2018

California Regional Water Quality Control Board
Los Angeles Region

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Main Phone (213) 576-6600
Records Review FAX (213) 576-6676 **E-Mail**: RB4-Publicrecords@waterboards.ca.gov

Matthew Rodriquez
Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

Records Review Request Form

In order to respond to your request for review of public records, your assistance in indentifying the subject matter of the request is appreciated. Please limit your request to one facility or one site address for each request form. If you know the type of case or file that is being requested, please check the appropriate programs, or indicate if you would like to review all records:

Your contact information:

Name: BRIAN PIERCE Date: 4/1/2018

Company: LEIGHTON & ASSOCIATES

Mailing Address: 3534 MURPHY CANYON ROAD, B-205

City: SAN DIEGO State: CA Zip Code: 92123

Phone Number: (619) 405-2387 Fax Number: E-Mail Address: bpierce@leightongroup.com

Requested Record Type:

- ☐ NPDES permitting
  - ☐ Individual permits
  - ☐ General permits
- ☐ Contaminated Sediment
- ☐ Total Maximum Daily Loads (If known, specify the TMDL of interest)
- ☐ Basin Planning (specify amendment or Resolution No. of interest, if appropriate)
- ☒ Enforcement (If known, specify the case or site)
- ☐ Storm Water
  - ☐ Municipal Permits
    - ☐ Ventura
    - ☐ Los Angeles
    - ☐ Cal Trans
    - ☐ Other
  - ☐ General Industrial Stormwater Permit
  - ☐ General Construction Stormwater Permit
- ☒ Underground Tanks
- ☒ Remediation
- ☐ Groundwater Permitting
  - ☐ Waste Discharge Requirements (WDR)
    - ☐ WDR for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic Compound or Hexavalent Chromium Impacted Sites
      - ☐ WDR for Onsite Wastewater Treatment Systems or land discharge
- ☒ Land Disposal
- ☐ All Records

Time Period of Documents Requested: ☒ All From: To:

Requested Facility/Site Information

Facility Name: CARDEN SCHOOL OF WHITTIER

Facility Address: 11537 GROVEDALE DRIVE

City: WHITTIER State: CA Zip Code: 90604

Facility WDID No. (if known): NPDES Permit No. (if known):

Case No./C.I. No. (if known) File No. (if known)

Brian Pierce

From: Gallardo, Laura@Waterboards <Laura.Gallardo@waterboards.ca.gov> on behalf of WB-RB4-PublicRecords <RB4-PublicRecords.RB4-PublicRecords@waterboards.ca.gov>
Sent: Thursday, April 19, 2018 4:15 PM
To: Brian Pierce
Cc: Gallardo, Laura@Waterboards
Subject: RE: Public Records Request/2018041004

The Regional Board has reviewed its files and has concluded that it does not have any records that are responsive to your request.

From: Brian Pierce [mailto:bpierce@leightongroup.com]
Sent: Monday, April 09, 2018 5:07 PM
To: WB-RB4-PublicRecords <RB4-PublicRecords.RB4-PublicRecords@waterboards.ca.gov>
Subject: Public Records Request

Please see the attached request.

Thanks,

Brian Pierce, PG
Project Geologist
LEIGHTON | Solutions You Can Build On

3934 Murphy Canyon Road, B205
San Diego, California 92123
Phone: (858) 300-8495
Cell: (619) 405-2387
bpierce@leightongroup.com

Please consider the environment before printing this e-mail.

Los Angeles County Department of Public Works

YOU ARE NOT REQUIRED TO FILL OUT THIS FORM IN ORDER TO RECEIVE PUBLIC RECORDS UNDER THE CALIFORNIA PUBLIC RECORDS ACT. COMPLETING THIS FORM IS OPTIONAL. THE INFORMATION REQUESTED BELOW, HOWEVER, SERVES TO ASSIST OUR EMPLOYEES IN PROCESSING YOUR PUBLIC RECORDS REQUEST.

PUBLIC RECORDS INSPECTION/COPYING REQUEST

In accordance with the California Public Records Act, California Government Code 6250, et al., the Los Angeles County Department of Public Works (DPW) will respond to requests for DPW records and documents, and provide access to records and documents that have been designated public information. Every person has a right to inspect public records as provided in the Act during the Department's office hours.

("Public records" consist of any information relating to the public's business prepared, owned, used, or retained by any public agency. Included are handwritten, typewritten, printed or photocopied documents; photographic films and prints; maps; magnetic or paper tapes; magnetic or punched cards; discs; and other forms of data.)

Pursuant to the Act, certain records are not subject to disclosure. DPW, upon request for a copy of records, shall determine within 10 days from the request whether to comply with the request and shall immediately notify the person making the request of such determination. In unusual circumstances, the 10-day period specified above may be extended an additional 14 days upon written notice to the requestor, stating the reasons for the extension and the date a determination is expected.

Requested By: Bria Pierce (Please Print)
Date: 04/09/2018

I prefer to be contacted by: ☐ Telephone ☐ U.S. Mail ☒ E-mail

Telephone: 619-405-2387
U.S. Mail: 3934 Murphy Canyon Road, B-205
San Diego, CA 92123
E-Mail: bpierce@leightongroup.com

DOCUMENTS REQUESTED: Property Address: 11537 Grovedale Drive, Whittier CA 90604,

We are requesting any information concerning hazardous materials, underground storage tanks, leaking underground storage tanks, cleanups, inspections, or any other environmentally sensitive spills, responses, or incidents.

Time-period of interest: All Project Number, if any: _____ Thomas Guide co-ordinates: _____

(OPTIONAL) Are the documents requested being sought for the purpose of a claim or litigation?
Yes ☐ No ☒

If yes, please indicate: Firm Name: _____

Case Name: _____

Case Number: _____ Court Location: _____

I understand that I may be charged for this service. Estimated cost (if over $50) $ _____

Documents delivered by _____ _____
Signature Date

Total cost $ _____ Cost detail _____

01-0039 DPW Rev. 12/10

RESPONSE TO PUBLIC RECORDS REQUEST

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT BOULEVARD, ALHAMBRA, CA 91803

Brian Pierce **Date: 4/18/18**
bpierce@leightongroup.com

RESPONSE IN CONNECTION WITH YOUR PUBLIC RECORDS REQUEST – BRIAN PIERCE – NO. 3220

We have reviewed your Public Records Act request received on April 10, 2018, and we offer the following:

☐ Attached are records responsive to your request. Please see remarks for further information.

☐ We have reviewed our files and collected the records you requested. Please see remarks for further information.

☑ **After a thorough and diligent search, we failed to find any records that satisfy your request. Please see remarks for further information.**

Remarks:

The County of Los Angeles Department of Public Works has no records for information concerning hazardous materials, underground storage tanks, leaking underground storage tanks, cleanups, inspections, or any other environmentally sensitive spills, responses, or incidents for 11537 Grovedale Drive, Whittier, CA

For more information regarding this response, please contact:

Elisa Lojero
Claims & Litigation Section
Survey/Mapping & Property Management Division
Phone: (626) 458-7022
Fax: (626) 979-5408
Email: elojero@dpw.lacounty.gov
Office Hours: Monday through Thursday from 7 a.m. to 5 p.m.

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

	District: 1 - Long Beach
Former owner: AMINOIL U.S.A. INC.	Date: March 20, 1985

ALL WELLS IN:

LOS ANGELES COUNTY		ORANGE COUNTY
Dominguez	Rosecrans	Huntington Beach
Inglewood	Seal Beach	Orange County
Lawndale	Wilmington	
Long Beach	L. A. County	
Long Beach Airport		

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
March 4, 1985	PHILLIPS OIL CO.	Corp.
	Address: P. O. Box 191, Huntington Beach, CA 92648 (213) 592-5501	Telephone No. (714) 536-6521

Reported by

Confirmed by

New operator new status (status abbreviation)	Request designation of agent
PA	D. W. Wheeler, same address
Old operator new status (status abbreviation)	Remarks
Ab	All assets of Aminoil U.S.A. Inc. have been acquired by Phillips Oil Company, see ownership file for property transfer.

Deputy Supervisor: V. F. Gaede

Signature: Robert H. Lamerdin

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form OGD148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

cc: Conservation Committee
H. B. Fire Dept.
L. A. County Assessor
Dept. of Oil Prop.

FORM 159 (9-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

(32)

Los Angeles, California

October 3 1956

Mr. Richard H Smith Agent
Signal Oil and Gas Company
P O Box 17126 Foy Station
Los Angeles 17 California

Dear Sir

Your report of abandonment of Well No. "Signal-Stern Realty" 1, Sec. 12, T. 3 S, R. 11 W, S B B. & M., (Leffingwell Area) ~~field~~, Los Angeles County, dated September 11, 1956, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	121
39 ah	ah		Blanket	EB	m I.

cc Mr E H Musser
Mr D S Johnston
Conservation Committee
Mr L A Dutton
Fire Prevention Bureau

es

E. H. MUSSER
State Oil and Gas Supervisor

By R. N. Walling
Deputy Supervisor

17601 5-55 11,200 SPO

COMPLETED PRODUCING ON _____

ABANDONED ON 8/17/54

CLERK (32)

Date Received 9-19-56 Form 100 ___ 101 ___ 103 ___

Elec. Log ___ Radio Log ___

Direct. Surv. ___ Other Data Hist of abandon

Location ___

___

Elevation ___ Clerk JCart

Prod. Repts. ___ Clerk ___

ENGINEER

BOND Blanket Release ___ Date Elig. ___ 150b ___

End Prem. year ___ Release Requested ___ Superseded ___

Aband. ___

HOLD BOND ___ Reason ___

___

Data Needed none

___ Final Letter ✓ Eng. (72)

RECEIPT FOR

___ New Well Records

✓ Subsequent Work

Well Summary ___ (100)

Drillers Log ___ (101)

Core Record ___ (101)

History ✓ (103)

Elec. Log ___

Other ___

___

Redrill ___

Deepen ___

Plug ___

Alter Csg. ___

Abandon ✓

P-35 10M DUP. 3-56

32

DIVISION OF OIL AND GAS
RECEIVED
SEP 19 1956
LOS ANGELES, CALIFORNIA

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD (Leffingwell) Los Angeles County SIGNED Paul Anderson

DATE September 11, 1956 TITLE Chief Production Engineer

DATE 1956

Abandonment Record

Note: All depths refer to Kelly bushing which is 12.17' above top of the cellar.

8-3 With tubing hanging at 8664' filled hole with salt water. Plugged 7" casing through 2-1/2" tubing hanging at 8664', with 110 sax of slow cement. This plugging was done in two stages.

8-4 Top of the plug was found at 8216' with tubing. Plug was witnessed and approved by the Division of Oil and Gas.

8-6 Moved Emmons and Edmondson gin pole to Sterns Realty 1. Set up gin pole.

8-7 Installed casing jacks and unlanded 7" casing.

8-8 Installed Regan Blow out preventer. Ran McCullough Magna-tector. Found pipe free to 2650'. Ran Cavins plug on bailer and set at 2622'. Dumped two sax of cement on plug at 2622'. Shot 7" casing off in collar at 2602'.

8-9 Pulled casing up 20' and dumped 8 sax of cement on plug at 2622' for a total of 10 sax of cement from 2622'. Plug was approved by The Division of Oil and Gas.

8-14 Laid down 72 joints of 7" casing. Ran 4-1/2" bailer and bailed from 803' to 830'.

8-15 Bailed from 830' to 833' with 4-1/2" bailer. Ran 5" x 52' bailer. Bailed from 833' to 900'. Drove two wooden plugs to 900'.

8-16 Dumped 39 sax of construction cement from 900' using 4-1/2" bailer. Found top of cement plug at 773'. Plug witnessed and approved by the Division of Oil and Gas.

8-17 Hung wooden plug at 14' in 13-3/8" casing. Plugged from 14' to 4' with 9 sax of construction cement. Plug was witnessed and approved by the Division of Oil and Gas.

The 13-3/8" casing head was removed and a steel plate was welded on the 13-3/8" casing.

WELL ABANDONED.

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 156-1267

Mr. Richard H Smith
P O Box 17126 Foy Station
LOS ANGELES 17
Agent for SIGNAL OIL & GAS CO

Los Angeles 15 Calif.
August 21 1956

DEAR SIR:

Operations at your well No. 1 Sec. 12, T. 3 S, R. 11 W, S B B. & M., "Signal-Stern Realty" Leffingwell Area ~~Field~~, in Los Angeles County, were witnessed on August 17, 1956. Mr. G. Lee, Engineer, representative of the supervisor was present from 8:00 to 9:00 a.m. There were also present W. House, Engineer, H. Emmons, Contractor.

Present condition of well: 13-3/8" cem. 803'; 7" cem. 8755', four ½" test holes 8301', W.S.O., four ½" test holes 8487', W.S.O., four ½" holes 8332', four ½" holes 8551', perfs. 8304'-8316' (cem. off), 8323'-8330' (cem. off), 8307'-8312', 8494'-8530', 8535'-8548', 8726'-8733', shot and pulled from 2602'. T.D. 8760', plugged with cement 8664'-8601', 8586'-8216', 2622'-2602', 900'-773', and 14'-4'.

The operations were performed for the purpose of witnessing the plugging operations in the process of abandonment.

Mr. xxxxxxxxx reported:

ENGINEER G. LEE VISITED THE WELL FROM 3:15 - 3:45 P.M., AUGUST 16, 1956, AND MR. W. HOUSE REPORTED: 1. The 7" casing was shot at 2602' and pulled up 30'.

2. On August 8, 1956, 10 sacks of cement was dumped into the hole beginning at 2622', and calculated to fill to 2602'.
3. On August 15, 1956, 39 sacks of cement was dumped into the hole beginning at 900'.

THE ENGINEER NOTED THAT the bailer could not be spudded below 773' and brought up a sample of set cement.

THE ENGINEER ARRIVED AT THE WELL AT 8:00 A.M. AND NOTED:

1. The hole was bridged at 14' with a wooden plug.
2. Nine sacks of cement was poured into the hole.
3. The top of the cement in the 13-3/8" casing was at the cellar floor, 4' below the ground surface.

4/H

THE PLUGGING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

GL:OH

cc Mr D S Johnston

E. H. MUSSER
State Oil and Gas Supervisor

By R. W. Walling Deputy

FEK

12362 2-58 18,100 ② SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 156-1214

Mr. Richard H Smith
P O Box 17126 Foy Station
Los Angeles 17 California
Agent for SIGNAL OIL AND GAS COMPANY

Los Angeles 15 Calif.
August 10 1956

DEAR SIR: "Signal-Stern Realty"

Operations at your well No. 1 Sec. 12, T. 3 S., R. 11 W., S.B. B. & M., Leffingwell Area ~~Field~~ in Los Angeles County, were witnessed on August 4, 19 56. Mr. M. Dosch, Engineer, representative of the supervisor was present from 10:30 to 11:15 p.m. There were also present W. House, Engineer
K. Soundy, Head Well Puller

Present condition of well: 13-3/8" cem. 803', 7" cem. 8755' four ½" test holes 8301', W.S.O., four ½" test holes 8487', W.S.O., four ½" holes 8332', four ½" holes 8551'; perfs 8304'-8316' cem. off, 8323'-8330' cem. off. 8307'-8312', 8494'-8530', 8535'-8548', 8726'-8733'; T.D. 8760', plugged with cement 8664'-8601', 8586'-8216'

The operations were performed for the purpose of testing the location and hardness of a cement plug proposed to be 8760' to 8275' in the process of abandonment.

Mr. House reported:

1. The hole could not be cleaned out below 8664', due to heaving sand.
2. On August 3, 1956, 50 sacks of cement was pumped into the hole through 2-1/2" tubing hanging at 8664', filling to 8601'.
3. On August 4, 1956, 60 sacks of cement was pumped into the hole through 2-1/2" tubing hanging at 8586', filling to 8216'.

THE ENGINEER NOTED THAT the cement plug at the reported depth of 8216' supported 4 points of the weight of the 2-1/2" tubing.
THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 8216' ARE APPROVED.

MD:ys

cc Mr D S Johnston

H/Y

House-RMB 8/13/57
"found hole bridged at shoe of 13⅜"
will try to clean out with bailer
It may be necessary to run tbg to
clean out to 700' for plug

E. H. MUSSER
State Oil and Gas Supervisor

By R. W. Walling RMB Deputy

5440 9-54 17,850 ⓢ SPO

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 156-1083

Mr. Richard H Smith
P O Box 17126 Foy Station
LOS ANGELES 17
Agent for SIGNAL OIL AND GAS CO

Los Angeles 15 Calif.
July 30, 1956

DEAR SIR:

Your proposal to abandon Well No. 1 "Signal-Stern Realty",

Section 12, T. 3 S, R. 11 W, S B B. & M., Leffingwell Area ~~Field~~, Los Angeles County,

dated July 24, 1956, received July 27, 1956, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE
The 7" casing was cemented at 8755'.
Jet perforations 8304'-8316' and 8323'-8330' were squeezed with cement.
The 7" casing was jet perforated 8307'-8312', 8535'-8548', and 8726'-8733'.

THE NOTICE STATES
"The present condition of the well is:
1. Total Depth: 8760'

2. Complete casing record, including plugs:
13-3/8", 54.5# casing cemented at 803' 7" 23#, 26# & 29# casing cemented at 8775'.
W.S.O. at 8301', 8332', 8487' and 8551'; perforated with four 1/2" jet shots per foot 8548'-8535', 8530'-8494', 8330'-8323' and 8316'-8304.

3. Last Produced 7/13/56 (Date) 4 (Oil, B/D) 12 (Water, B/D)"

PROPOSAL
"The proposed work is
1. Fill hole with cement and sand from bottom to 8275'.
2. Cut 7" casing above "free-point" and pull casing up approximately 30'. Place cement plug 20' into and 20' above stub of 7" casing. Pull balance of casing.
3. Place bridge plug at 900' and fill with cement from 900' to 783' or 20' inside 13-3/8" casing.
4. Place 10' cement plug at surface of 13-3/8" casing. Weld steel plate on top of 13-3/8" casing and Abandon location."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT
1. All perforations shall be plugged with cement.
2. THIS DIVISION SHALL BE NOTIFIED TO WITNESS the location and hardness of each cement plug.

NOTE This division shall be consulted if the proposed work is not to be performed under your direct supervision.

L/G

RMB:OH

E. H. MUSSER, State Oil and Gas Supervisor

By R. N. Nelling, Deputy

cc Mr D S Johnston

Blanket bond.

FORM 108. 25462 10-55 25,550 ④ SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUL 27 1956
LOS ANGELES, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only

Los Angeles Calif. July 24 19 56

DIVISION OF OIL AND GAS

In compliance with Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well No. "Signal-Stern-Realty" 1, Sec. 12, T. 3S,

R. 11W, S.B. B. & M., (Leffingwell) Field, Los Angeles County,

commencing work on August 1 19 56.

THE PRESENT CONDITION OF THE WELL IS:

1. Total Depth: 8760'

2. Complete casing record, including plugs:
13-3/8", 54.5# casing cemented at 803' 7", 23#, 26# & 29# casing cemented at 8775'. W.S.O. at 8301', 8332', 8487' and 8551'; perforated with four 1/2" jet shots per foot 8548'-8535', 8530'-8494', 8330'-8323' and 8316'-8304.

3. Last Produced 7/13/56 (Date) 4 (Oil, B/D) 12 (Water, B/D)

ADDITIONAL DATA FOR DRY HOLE

4. Oil or Gas showings and results of tests:

5. Stratigraphic markers and depths:

6. Geologic age at bottom:

7. Base of fresh water sands:

THE PROPOSED WORK IS

1. Fill hole with cement and sand from bottom to 8275'.

2. Cut 7" casing above "free-point" and pull casing up approximately 30'. Place cement plug 20' into and 20' above stub of 7" casing. Pull balance of casing.

3. Place bridge plug at 900' and fill with cement from 900' to 783' or 20' inside 13-3/8" casing.

4. Place 10' cement plug at surface of 13-3/8" casing. Weld steel plate on top of 13-3/8" casing and Abandon location.

abandon

MAP	MAP BOOK	CARDS	BOND	FORMS 114	121
			Blanket		

P. O. Box 17126, Foy Station, L.A.17
(Address)

Michigan 8311
(Telephone No.)

SIGNAL OIL & GAS COMPANY
(Name of Operator)

By Paul Conchera

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

New field designation from Los Angeles County to Leffingwell field. Effective 7-1-56.

(26)

STENOGRAPHER

Date Received 9-14-54 Form 100 ____ 101 ____ 103 ____

Elec. Log _____ Radio Log _____

Direct. Surv. _____ Other Data Subsequent History

Location _____

Elevation _____ Steno. MM

ENGINEER

BOND End. 1-8-54 Release ____ Date Elig. _____ 150b _____

End Prem.Yr. ____ Release Requested ____ Superseded ____ Aban. ____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ____ Eng. KMB

RECEIPT FOR

Well Summary _____

Drillers Log _____

Core Record _____

History ✓

Elec. Log _____

Radio Log _____

Direct.Surv. _____

Redrill _____

Deepen _____

Plug _____

Alter Csg. ✓

Abandon _____

P-35 10M DUP. 5-53 BP

Mr. Walling 26

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

DIVISION OF OIL AND GAS
RECEIVED
SEP 14 1954
LOS ANGELES, CALIFORNIA

WELL NO. "Signal-Stern-Realty" 1 SEC. 12 T. 3 S. R. 11 W. S.B. B. & M.

FIELD (Leffingwell Area) LOS ANGELES COUNTY SIGNED R A Smith

DATE 9-9-54 TITLE General Production Superintendent

DATE

Following is a record of all work done since the previous record dated July 16, 1954.

NOTE: All measurements are from the Kelly bushing which is 12.17' above the top of the cellar.

1954

May 26 Pulled rods and tubing. Bailed 8647'-8667'. Ran Halliburton HM 7" squeeze packer on 2-1/2" tubing to 8270' with 2-1/2" tail to 8576'. Filled hole with salt water and circulated to kill well. Set packer at 8270' and broke down formation at 4600 p.s.i. using salt water. Opened by-pass on packer and pumped in 100 cu.ft. of Halliburton MCA mixed with fresh water. Followed acid with 168 cu.ft. of salt water.

May 27 Closed tool and squeezed 61 cu.ft. of acid into formation. Initial pressure 4600 p.s.i. Final pressure 4000 p.s.i. Backed up casing with 1200 p.s.i. while pumping acid away. Pressure dropped to 2000 p.s.i. when pump was shut down and bled off to zero after twenty minutes. Unseated packer and started swabbing. Swabbed 16 hours and recovered 119 bbls. of water. Fluid level 2400' from surface.

May 28 Swabbed 8 hours and recovered 43 bbls. of water. Fluid level 2380' from surface. Recovered a total of 162 bbls. of water by swabbing. Pulled tubing and packer. Ran tubing, pump and rods.

May 29 Well pumping at 7:00 a.m.

PRODUCTION AFTER ACIDIZING

	Gross	Cut	Net	Gas-MCF	Stroke	C. P.	T. P.	Gravity
May 29	150	100	0	20	12x74	0	60	-
May 30	147	100	0	20	12x74	0	60	-
May 31	145	100	0	20	12x74	30	60	-
June 1	146	100	0	10	12x74	50	50	-
June 2	174	100	0	10	12x74	50	50	-
June 3	192	100	0	10	12x74	43	45	-
June 4	195	100	0	10	15x74	48	65	-

35 10M DUP. 5-53 BP

DIVISION OF OIL AND GAS
RECEIVED
SEP 14 1954
LOS ANGELES, CALIFORNIA

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD (Leffingwell Area) LOS ANGELES COUNTY

SIGNED

DATE 9-9-54

TITLE General Production Superintendent

DATE 1954

PRODUCTION PRIOR TO CEMENTING

	Gross	Cut	Net	Gas-MCF	Stroke	C. P.	T. P.	Gravity
July 21	206	95	10	12	15x74	1020	50	28.3
July 22	206	95	10	12	15x74	1000	50	28.3
July 23	204	95.5	9	12	15x74	1000	50	28.3
July 24	204	96	8	12	15x74	1000	50	28.3
July 25	204	96	8	12	15x74	980	50	28.3
July 26	201	97.5	5	12	15x74	940	50	28.3
July 27	211	96	8	12	15x74	940	50	28.3

July 28 Pulled rods and pump.

July 29 Pulled tubing.

July 30 Ran Lane-Wells 2-1/2" x 7" circulating type packer and set at 8448'. Swabbed tubing down from 500'-5800'.

July 31 Ran tubing, pump and rods. Put well on production. Filled tubing with salt water. Pumped 11 bbls. of water in 18 hours.

Aug. 1 Pumped 26 bbls. cutting 50% in 24 hours. Large volume water source appears to be above 8448'.

Aug. 2 Pulled rods and pump. Unseated packer and pulled tubing.

Aug. 3 Ran Baker Model "N" bridging plug on McCullough shooting line. Set plug at 8335'. Pin did not shear. Could not pull setting tool loose. Whipped line out of rope socket. Ran McCullough overshot fishing tool with torque jars on 2-1/2" tubing. Hooked on to fish and started out of hole with tubing. Did not recover fish. Laid down McCullough jars and ran back with overshot and Bowen straight pull jars. Hooked on to fish. Jars tripped at 78 points.

Aug. 4 Pulled tubing and recovered fish. Found pin between setting tool and bridging plug sheared in a normal manner. Ran Halliburton 7" Hydraulic Retrievable cementer on 2-1/2" tubing. Set tool at 8234'. Tested tubing at 5000 p.s.i. Lost 100 p.s.i./minute. Tested tubing and cement tool. Lost 800 p.s.i. in 3 minutes. Pulled tubing and cement tool. Ran back second Halliburton Hydraulic Retrievable cementer. Tested tubing and tool every 45 stands to 5000 p.s.i.

Aug. 5 Set Halliburton Hydraulic Retrievable cementer at 8252'. Tested casing with 3000 p.s.i. Tested tubing to 5700 p.s.i. with 3000 p.s.i. on casing. Broke-down perforations at 4500 p.s.i. Squeezed perforations 8304'-8316' and 8323'-8330' with 50 sacks of Hi-Temperature cement. Displaced with 288 cu.ft. of

-35 10M DUP. 5-53 BP

(26)

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern-Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD Leffingwell (Los Angeles County Area)

SIGNED

DATE 9-9-54

TITLE General Production Superintendent

DATE	
1954 Aug. 5 (cont'd.)	salt water. Final squeeze pressure 7500#. Pulled tubing and cement tool.
Aug. 6	Drilled out set cement 8287'-8539', equivalent to 44 sacks. Drilled up Baker Model "N" at 8335'. Circulated down with salt water to 8589'.
Aug. 7	Pulled tubing and bit. Ran tubing with gas anchor. Swabbed 49 bbls. of salt water. Lowered fluid level from surface to 1500'.
Aug. 8	Swabbed 101 bbls. of salt water. Fluid level lowered from 1500'-4600'.
Aug. 9	Swabbed 85 bbls. of salt water. Fluid level 7300' from surface.
Aug. 10	Shut well in for 8 hours. Fluid level rose from 7300' to 7069' (231' in 8 hours). Ran pump and rods. Put well on production.
Aug. 11	Well pumped off after pumping 41 bbls. Pulled rods, pump and tubing.
Aug. 12	Bailed 8664' to 8750' (cement and rotary mud).
Aug. 13	Ran Lane-Wells jet gun. Gun would not go below 8706'. Ran bailer and bailed heavy rotary mud 8710'-8750'. Re-ran Lane-Wells jet gun. Spudded gun 8726'-8735'. Perforated 8733'-8726' with four 1/2" jet holes per foot. Re-perforated 8548'-8535' and 8530'-8494' with four 1/2" jet holes per foot. Fluid level rose from 7420' to 7350' while shooting. Bailed rotary mud from 8750'.
Aug. 14	Ran tubing, pump and rods. Put well on production. Filled tubing with salt water.
Aug. 15	Pumped 59 bbls. of salt water in 22 hours before pumping off. Shut down at 6:00 p.m. Unseated pump.
Aug. 23	Seated pump and put well on production. Filled tubing with salt water. Pumped 127 bbls. in 20 hours before pumping off. Last 5 bbls. pumped showed some oil with the salt count.
Aug. 24	Pulled rods, pump and tubing.
Aug. 25	Re-perforated 8312'-8307' with four 1/2" holes per foot using Lane-Wells jet gun. Fluid level was 7130' from surface when shooting. Ran tubing, pump and rods. Put well on production.

-35 10M DUP. 5-53 BP

RECEIVED
SEP 14 1954
LOS ANGELES, CALIFORNIA

(26)

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern-Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD (Leffingwell Area) LOS ANGELES COUNTY

SIGNED

DATE 9-9-54

TITLE General Drilling Superintendent

DATE

1954

	Gross	Cut	Net	Gas-MCF	Bean	Strokes	C.P.	T.P.	Gravity
Aug. 25	56*	100	-	19	30/64"	12x74	53	53	-
Aug. 26	18	19	15	19	30/64	8x74	53	53	28.1
Aug. 27	21	38	13	19	30/64	8x74	53	53	28.1
Aug. 28	23	4.0	22	19	30/64	8x74	53	53	29.7
Aug. 29	20	25	15	19	30/64	8x74	53	53	29.7
Aug. 30	22	86	3	19	30/64	8x74	53	53	29.7
Aug. 31	20	60	8	19	30/64	8x74	50	50	29.0
Sept. 1	20	70	6	19	30/64	8x74	50	50	29.0
Sept. 2	21	60	8	19	30/64	8x74	50	50	29.0
Sept. 3	21	75	5	19	30/64	8x74	50	50	29.7
Sept. 4	22	77	5	19	30/64	8x74	50	50	29.7
Sept. 5	22	77	5	19	30/64	8x74	50	50	29.7
Sept. 6	21	75	5	19	30/64	8x74	50	50	29.4

*9 hours production.

* Summary of Subsequent history

Squeezed perfs. 8304'-8316' with cem. ✓ ✓ 8323'-8330' ✓ ✓

gun perf. 8733'-8726'

re-perf. 8548'-8535'
8530'-8494'
8312'-8307'

HEN:gg

*RMB

STENOGRAPHER

RECEIPT FOR

Date Received 9-27-54 Form 100 101 103

Elec. Log Radio Log

Direct. Surv. Other Data well summary list, core rec

Location 990' E'ly instead of N'ly (typographical error) Our records show

Elevation Ok Steno. Ord

ENGINEER

BOND 1-8-54 refer Release ✓ Date Elig. 7/27/54 150b 8/26/54

End Prem.Yr. ✓ Release Requested Superseded Aban.

HOLD BOND Reason

Data Needed

Final Letter Eng. RMB

Well Summary ✓

Drillers Log

Core Record ✓

History ✓

Elec. Log

Radio Log

Direct.Surv.

Redrill

Deepen

Plug

Alter Csg.

Abandon

10

* correction letter to be written RMB → Correction letter written 8-25-54

N P36 7500 DUP. 1-52 MPS

DIVISION OF OIL AND GAS
RECEIVED
JUL 27 1954
LOS ANGELES, CALIFORNIA

31

Signal Oil and Gas Company

WELL SUMMARY REPORT

Well No. "Signal-Stern-Realty" 1 Sec. 12, T. 3 S., R. 11 W., S.B. B. & M.

Field Leffingwell (Los Angeles County) Elevation of ground 234.34 feet. Kelly bushing 246.51 feet.

Location 990' N'ly along property line and 990' W'ly at right angles to said line from the S.E. corner of Lot 6, Tract 850.

Date July 16, 1954

Signed D. A. Johnston

H. E. Wheeler
(Engineer or Geologist)

Title Drilling Superintendent

Total depth 8760' Plugged depth --
Junk None

Commenced drilling 1-31-54
Completed drilling 3-12-54
Commenced producing 4- 3-54
Flowing/gas lift/pumping

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	89	30.5	40	23	70	85
Production after 15 days	31	30.4	50	22	75	58

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing Landed In	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8"	803'	Surface	54.5#	New	Smls.	J-55	17"	500	
7"	8755'	Surface	23#, 26# & 29#	New	Smls.	N-80	10-5/8"	400	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
7"	at	8301'	four 1/2" holes (WSO)	-	-	Johnston jet gun
7"	at	8332'	four 1/2" holes (WSO)	-	-	Johnston jet gun
7"	at	8487'	four 1/2" holes (WSO)	-	-	Johnston jet gun
7"	at	8551'	four 1/2" holes (WSO)	-	-	Johnston jet gun
7"	8304'	8316'	four 1/2" holes per ft.	-	-	Lane Wells jet gun
7"	8323'	8330'	four 1/2" holes per ft.	-	-	Lane Wells jet gun
7"	8494'	8530'	four 1/2" holes per ft.	-	-	Lane Wells jet gun
7"	8535'	8548'	four 1/2" holes per ft.	-	-	Lane Wells jet gun

Electrical Log Depths 803' - 8758'

HW:gg

P-35 10M DUP. 5-53 BP

DIVISION OF OIL AND GAS
RECEIVED
JUL 27 1954
LOS ANGELES, CALIFORNIA

31

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern-Realty" 1 SEC. 12 T. 3 S. R. 11 W. S.B. B. & M.

FIELD Leffingwell Los Angeles County SIGNED J. A. Johnston

DATE July 16, 1954 TITLE Drilling Superintendent

DATE	
1954	NOTE: All measurements are from the Kelly bushing which is 12.17' above the top of the cellar.
	Rig "G" power equipment was used.
Jan. 31	Spudded in at 5:00 a.m. Drilled 17" hole 0'-830'.
Feb. 2	13-3/8", 54.5#, J-55, seamless, 8-R thread, new casing equipped with a Baker special guide shoe was cemented at 803' with 500 sax of Colton construction cement. Used top displacing plug. Displaced cement with 72⅘ cu.ft. of mud. Bumped plug. Final pressure 500#. Bled off to 200# and closed in casing. Oil Well Cementing Co. equipment was used.
Feb. 4	Drilled out shoe and firm cement 801'-830'. Before drilling out shoe, a casing test was made by applying 1000# pressure and holding for 15 minutes without loss.
Feb. 4 to Mar. 7	Drilled 10-5/8" hole 830'-8280'.
Mar. 7	Ran Schlumberger electric log 830'-8277'. Ran Schlumberger sidewall sampler (see core description).
Mar. 7 to Mar. 11	Drilled 10-5/8" hole 8280'-8700'.
Mar. 11	Ran Schlumberger electric log 8277'-8697'. Ran Schlumberger sidewall sampler (see core description). Drilled 10-5/8" hole 8700'-8760'.
Mar. 12	Total Depth: 8760'. Ran Schlumberger electric log 8697'-8758'. Ran Schlumberger sidewall sampler (see core description).
Mar. 13	7", 23#, 26# and 29#, N-80, seamless, 8-R thread, new, Smith, Youngstown and Pittsburg casing equipped with a Baker guide shoe, Baker differential fill-up float collar at 8675' and 8 casing guides and 16 scratchers located between 8290' and 8752' was cemented at 8755' with 400 sax of Colton high temperature cement.

P-35 10M DUP. 5-53 BP

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern Realty" 1 SEC. 12 T. 3 S. R. 11 W. S.B. B. & M.

FIELD Leffingwell (Los Angeles County) SIGNED D. S. Johnston (or sheet hereof)

DATE July 16, 1954 TITLE Drilling Superintendent

DATE

1954

Mar. 13 (Contd.)

Used top displacing plug. Displaced cement with 1910 cu.ft. of mud. Bumped plug. Final pressure 800#. Bled off to 200# and closed in casing. Oil Well Cementing Co. equipment was used.

Casing detail as follows:

0' - 110'	7", 29#, N-80
110' - 1111'	7", 26#, N-80
1111' - 5947'	7", 23#, N-80
5947' - 7970'	7", 26#, N-80
7970' - 8755'	7", 29#, N-80

Mar. 17

Drilled out firm cement 8672'-8750'. A casing test was made by applying 1500# pressure and holding for 15 minutes without loss.

Ran Johnston jet gun and tester on 3-1/2" drill pipe with 959' of mud cushion. Shot four 1/2" holes at 8301'. Set packer at 8256' with bottom of tailpiece at 8277'. Opened valve at 3:05 p.m. for 60 minutes. There was a weak steady blow for 17 minutes, dead for 23 minutes, weak heading blow for the duration. Recovered 180' of slightly gas cut mud, 360' of heavily gas cut mud, 450' of heavily oil and gas cut mud and 300' of oil and gas cut muddy water. Net recovery was 331', equivalent to 2.3 bbls. Salt count 15' above the tool showed 182 grains per gallon. The recording pressure charts showed the tester was open for one hour. Final pressure was 800#. W.S.O. was witnessed and approved by F. Foster for the Division of Oil and Gas.

Mar. 18

Ran Johnston jet gun and tester on 3-1/2" drill pipe with 959' of mud cushion. Shot four 1/2" holes at 8332'. Set packer at 8274' with bottom of tailpiece at 8295'. Opened valve at 5:00 a.m. for 120 minutes. There was a weak blow for 28 minutes, medium blow for 47 minutes, weak blow for the duration. Gas reached the surface in 47 minutes. A slight spray of oil reached the surface in 100 minutes. Recovered 240' of slightly gas cut mud with traces of oil, 270' of oil and gas cut mud, 720' of heavily oil and gas cut mud, 210' of oil and gas cut mud and 60' of muddy water with traces of oil. Net recovery was 540', equivalent to 4 bbls. The recording pressure charts showed the tester was open for two hours. Final pressure was 725#.

Ran Johnston jet gun and tester on 3-1/2" drill pipe with 1010' of mud cushion. Shot four 1/2" holes at 8487'. Set packer at 8441' with bottom of tailpiece at 8462'. Opened valve at 4:15 p.m. for

P-35 10M DUP. 5-53 BP

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD Leffingwell (Los Angeles County) SIGNED 1st sheet first D S Johnston

DATE July 16, 1954 TITLE Drilling Superintendent

DATE 1954	
Mar. 18 (Contd.)	60 minutes. There was a weak blow for 2 minutes, dead for 20 minutes, weak blow for 1 minute, dead for 7 minutes, closed and re-opened valve at 30 minutes, weak blow for 3 minutes, dead for the duration. Recovered 1080' of medium drilling fluid. Net recovery was 70', equivalent to 0.5 bbl. The recording pressure charts showed the tester was open for one hour. Final pressure 650#. W.S.O. was witnessed and approved by F. Foster for the Division of Oil and Gas.
Mar. 19	Ran Johnston jet gun and tester on 3-1/2" drill pipe with 1050' of mud cushion. Shot four 1/2" holes at 8551'. Set packer at 8505' with bottom of tailpiece at 8526'. Opened valve at 12:50 a.m. for 70 minutes. There was no blow for the duration. Recovered 1360' of thick drilling fluid. Net recovery was 310', equivalent to 2.3 bbls. The recording pressure chart showed the tester was open for one hour and ten minutes. Final pressure 900#.
Mar. 20	Ran Lane Wells jet gun and shot four 1/2" holes per foot at the following intervals:

8304'-8316'	12'	48 holes
8323'-8330'	7'	28 holes
8494'-8530'	36'	144 holes
8535'-8548'	13'	52 holes
	Total	272 holes

2-1/2", 6.5#, J-55, seamless, 8-R thread, E.U. tubing including 41' of tailpiece, sub, D&B pump shoe at 8619' and Knowlton tubing catcher at 6628' was landed at 8650' (pump shoe at 8607', cellar measurement).

Mar. 21 — Changed from drilling fluid to salt water.

Changed from salt water to oil.

Mar. 22 — Swabbed total of 387 bbls. of oil from 6:00 a.m., 3-22-54 to 10:00 a.m., 3-24-54.

Mar. 25 — Moved out drilling equipment.

Moved in pulling unit and ran pump and rods.

Installed pumping unit.

P-35 10M DUP. 5-53 BP

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well — P-35

WELL NO. "Signal-Stern-Realty" 1, SEC. 12, T. 3 S., R. 11 W., S.B. B. & M.

FIELD Leffingwell (Los Angeles County) SIGNED 1st sheet last D S Johnston

DATE July 16, 1954 TITLE Drilling Superintendent

DATE		Hours On	Gross	Cut	Net	Gas	GOR	Stroke	C.P.	T.P.	Grav.
1954 Mar. 25	Put Well On Production.										
Apr. 4		24	149	40	89	23	258	13x74	85	70	30.5
Apr. 5		24	115	52	55	23	418	14x74	85	60	30.5
Apr. 6		24	81	33	54	23	426	14x74	80	60	30.5
Apr. 7		24	79	50	39	23	590	13x74	60	60	30.5
Apr. 8		24	74	60	29	23	793	13x74	57	55/80	30.5
Apr. 19		24	62	50	31	22	710	12.5x74	58	75	30.4

HEW:gg

FORM P29 10M DUP. 9 51. MPS

Los Angeles County

(31)

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

DIVISION OF OIL AND GAS
RECEIVED
JUL 27 1954
LOS ANGELES, CALIFORNIA

FIELD: Ieffingwell Area)

COMPANY: Signal Oil and Gas Company

WELL: "Signal-Stern-Realty" 1

ELEVATION: 246'

PAGE: 1

DATE: 3-17-54

CORE BBL. MAKE: Schlumberger

SIZE & TYPE: Sidewall sampler

DESCRIBED BY: Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
1	3365'							X	CONGLOMERATE: Gray to brown, massive, dirty, large angular fragments, varied colored pebbles, no odor.	
2	5159'						X		GRAY SAND: Gray, firm, very fine grained, very silty, no odor, no fluorescence.	
3	5190'								No Recovery.	
4	5401'						X		GRAY SAND: Gray, firm, fine grained, well sorted, slightly silty, no odor.	
5	7081'						X		GRAY SAND: Light gray, fine to coarse grained, poorly sorted, clean, bad odor, no cut.	
6	7122'						X		GRAY SAND: Light gray, fine to medium grained with pebbles up to 1/4", no odor.	
7	7302'						X		GRAY SAND: Light gray, soft, very fine to coarse grained, silty, no odor.	

FORM P29 10M DUP. 9 51 MPS

Los Angeles County

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 2

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
8	7306'							X	CONGLOMERATE: Light gray, very soft, very fine grained to pebbly, silty, no odor.	
9	7316'						X		GRAY SAND: Light gray with black specs, fairly clean, no odor, no cut.	
10	7322'								No Recovery.	
11	7683'						X		GRAY SAND: Light gray with black specs, fine grained, silty, no odor, no cut.	
12	7696'						X		GRAY SAND: As last above.	
13	7843'						X		GRAY SAND: As last above.	
14	7901'						X		GRAY SAND: Brownish gray, firm, fine grained, very silty, tight, finely micaceous, no odor, no cut.	

FORM P29 10M DUP. 9 51 MPS

SIGNAL OIL & GAS COMPANY

CORE RECORD P-29

FIELD Leffingwell Area (Los Angeles County)

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 3

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
15	8103'							X	SILTSTONE: Dark gray, sandy, with inclusions of light gray, very fine to fine grained, friable sand. No odor, no cut.	
16	8111'						X		GRAY SAND: Gray, firm, fine grained, clean, no odor, no cut, no fluorescence.	
17	8114'							X	CLAYSTONE: Brown, soft, massive.	
18	8130'						X		GRAY SAND: Gray to dark brown, mottled and streaked, hard, very fine grained, very silty, tight, no odor, no cut.	
19	8154'							X	CLAYSTONE: Dark brown, massive, tough.	
20	8163'						X		GRAY SAND: Gray, soft, massive, very fine grained, silty, bad odor.	

FORM P29 10M DUP. 9 51 MPS

SIGNAL OIL & GAS COMPANY

CORE RECORD P-29

FIELD (Leffingwell Area) Los Angeles County

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 4

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
21	8168'						X		GRAY SAND: Gray to brown, mottled and streaked, firm, massive, very fine grained, silty, tight, no odor, no cut.	
22	8178'					X			OIL SAND: Grayish tan, firm, massive, very fine to fine grained, well sorted, good odor, straw cut.	
23	8188'					X			OIL SAND: Light brownish gray, very fine grained, well sorted, oil stained, good odor, light amber cut.	
24	8196'						X		GRAY SAND: Gray, firm, massive, fine grained, well sorted, silty, no odor.	
25	8202'								No Recovery.	
26	8223'						X		GRAY SAND: Brownish gray, firm, massive, fine grained, well sorted, silty, no odor.	
28	8234'						X		GRAY SAND: Grey, firm, massive, fine grained, well sorted, silty, with very thin streak of dark brown	

FORM P29 10M DUP. 9 51 MPS

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area Los Angeles County
COMPANY Signal Oil and Gas Company
WELL "Signal-Stern-Realty" 1
ELEVATION 246'

PAGE 5

DATE 3-17-54
CORE BBL. MAKE Schlumberger
SIZE & TYPE Sidewall sampler
DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
28 (Continued)									claystone. No odor, no cut.	
	8240'						X		GRAY SAND: As last above without claystone.	
30	8257'						X		GRAY SAND: Mottled brownish gray, firm to hard, massive; gray portion is very fine to fine grained; brown portion is silt. Very tight, no odor,no cut.	
31	8268'						X		GRAY SAND: Gray, firm, massive, very fine to fine grained, well sorted, slightly silty, no odor, no cut.	
32	8271'						X		GRAY SAND: As in Sample #28 (8234').	
33	8285'						X		GRAY SAND: Gray, firm, fine grained, clean, no odor, no cut.	
34	8311'					X			OIL SAND: Tan, soft, fine grained, well sorted, fairly clean, sharp petroleum odor, pale amber cut, good fluorescence.	

FORM P29 10M DUP. 9 51 MPS

Los Angeles County

(FIELD Leffingwell Area)

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

DATE 3-17-54

COMPANY Signal Oil and Gas Company

CORE BBL. MAKE Schlumberger

WELL "Signal-Stern-Realty" 1

SIZE & TYPE Sidewall Sampler

PAGE 6

ELEVATION 246'

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
35	8312'								No Recovery.	
	8326'						X		GRAY SAND: Brownish gray, firm, fine grained, silty, tight, fleeting odor, no cut, no fluorescence.	
37	8327'					X			OIL SAND: (very small sample) Tannish, soft, fine grained, fair odor, pale amber cut, good fluorescence.	
38	8351'						X		GRAY SAND: Gray, soft, fine grained, slightly silty, no odor, no fluorescence.	
39	8368'						X		GRAY SAND: As last above with fleeting odor.	
40	8386'						X		GRAY SAND: Gray, soft, very fine grained, slightly silty, no odor, no fluorescence.	
41	8409'						X		GRAY SAND: Light gray, firm, very fine grained, dirty, no odor, no fluorescence.	

FORM P29 10M DUP. 9 51 MPS

Los Angeles County

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD (Leffingwell Area)

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 7

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
42	8426'						X		GRAY SAND: Light gray, soft, friable, fine grained, silty, no odor, no fluorescence.	
43	8445'						X		GRAY SAND: Tannish gray, soft, friable, fine grained, poorly sorted, with some siltstone. No odor, no cut, no fluorescence.	
44	8466'						X		GRAY SAND: As in sample #42 (8426').	
45	8487'							X	SILTSTONE: Dark brown, soft, with minute inclusions of very fine grained gray sand. No odor.	
46	8497'					X			OIL SAND: Tannish gray, soft, very fine grained, fairly silty, good sharp odor, pale amber cut, good fluorescence.	
47	8504'					X			OIL SAND: Light tannish gray, soft, fine grained, fairly silty, good odor, pale yellow cut, good fluorescence.	

FORM P29 10M DUP. 9 51 MPS

Los Angeles County

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area) DATE 3-17-54

COMPANY Signal Oil and Gas Company CORE BBL. MAKE Schlumberger

WELL "Signal-Stern-Realty" 1 SIZE & TYPE Sidewall sampler

ELEVATION 246' PAGE 8 DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
48	8512'					X			OIL SAND: Grayish brown, soft, friable, fine grained, well sorted, clean, very sharp odor, light amber cut, good fluorescence.	
49	8522'						X		GRAY SAND: Light gray, very fine grained, very silty, no odor, no cut, no fluorescence.	
50	8523'						X		GRAY SAND: Light gray speckled with black, very fine grained, fairly clean, no odor, no cut, no fluorescence.	
51	8528'								No Recovery.	
52	8539'					X			OIL SAND: Grayish brown, fairly soft, fine grained, poorly sorted, fairly clean. Good sharp odor, very pale cut, good fluorescence.	
53	8545'					X			OIL SAND: Gray, soft, fine grained, fairly silty, good odor and fluorescence, amber cut.	

FORM P29 10M DUP. 5-53 MPS

Los Angeles County

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 9

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall Sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
54	8558'							X	Entire sample was solid quartz.	
	8563'						X		GRAY SAND: Gray, firm, very fine grained, clean. No odor, no fluorescence.	
56	8564'							X	SILTSTONE: Brown, sandy, with a little soft, fine grained, gray sand. No odor, cut or fluorescence.	
57	8582'					X			OIL SAND: Tannish gray, firm, friable, fine grained, fair odor, pale amber cut, good fluorescence (small sample).	
58	8584'								No Recovery.	
59	8588'						X		GRAY SAND: Gray speckled with black, soft, fine grained, silty. No odor, cut or fluorescence.	
60	8613'						X		GRAY SAND: Gray, firm, fine grained, silty. Fleeting odor, no cut or fluorescence.	

FORM P29 10M DUP. 5-53 MPS

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area (Los Angeles County)

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 10

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
61	8618'						X		GRAY SAND: Dark brownish gray, firm, fine grained, tight. Fleeting odor, no cut or fluorescence.	
62	8627'					X			OIL SAND: Tannish gray, firm, very fine to fine grained, silty, good odor, light brown cut, good fluorescence.	
63	8665'						X		GRAY SAND: Gray, firm, very fine grained, very silty, fleeting odor, no cut or fluorescence.	
64	8717'								No Recovery.	
65	8729'								No Recovery.	
66	8723'				X				SHALE: (Siltstone) Dark gray, firm, bedded, mineral fluorescence.	
67	8733'					X			OIL SAND: Brown, firm, very fine grained, silty, tight, pale amber cut, weak odor.	

FORM P29 10M DUP. 5-53 MPS

Los Angeles County

SIGNAL OIL & GAS COMPANY
CORE RECORD P-29

FIELD Leffingwell Area

COMPANY Signal Oil and Gas Company

WELL "Signal-Stern-Realty" 1

ELEVATION 246'

PAGE 11

DATE 3-17-54

CORE BBL. MAKE Schlumberger

SIZE & TYPE Sidewall sampler

DESCRIBED BY Liedholm; LaBouff; Anderson

CORE NO.	FROM	TO	THICK-NESS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
68	8743'							X	SANDY SILTSTONE: Grayish brown, fine grained, very silty and clayey. Weak odor, pale amber cut.	

L:IB:A:gg

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 154-335

Mr. Walter Greenfield
Los Angeles 17 Calif

Los Angeles Calif.
March 23 1954

Agent for SIGNAL OIL AND GAS CO

DEAR SIR:

Your well No. "Signal-Stern Realty" 1, Sec. 12, T. 3 S, R. 11 W S B B & M.
(Leffingwell Area) ~~Field~~, in Los Angeles County, was tested for water shut-off on March 18, 1954. Mr. J F Foster, Inspector, designated by the supervisor was present from 7:30 p.m. to 8:30 p.m. as prescribed by law; there were also present G Rice, Engineer
C Henderson, Drilling foreman

Shut-off data: 7 in. 23,26,29 lb. casing was cemented xxx at 8755 ft. on March 13, 1954 in 10-5/8 in. hole with 400 ~~sacks~~—sacks of cement xxx calculated to fill behind casing to 7402 ft. below surface.

Casing record of well: 13-3/8" cem. 803'; 7" cem. 8755'; 4, 1/2" holes 8332'; 4, 1/2" test holes 8301', W.S.O. and 8487', W.S.O.

Present depth 8760 ft. cmt. bridge 8755 ft. to 8750 ft. Cleaned out cmt. 8745 ft. to 8750 ft. for test. A pressure of 1500 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8750 ft. A Johnston gun and tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~, with 1010 ft. of ~~water~~ mud cushion, and packer set at 8441 ft. with tailpiece to 8462 ft. Tester valve, with 3/8 in. bean, was opened at 4:15 p.m. and remained open for 1 hr. and xxx min. During this interval there was a very weak blow for 2 minutes, no blow for 20 minutes, very weak blow for 1 minute, no blow for 7 minutes, very*

Mr. Rice reported:

*weak blow for 3 minutes and no blow thereafter.

1. The 7" casing was jet-shot with 4, 1/2" test holes at 8332' for company test of shut-off and tested dry.
2. The 7" casing was shot-perforated with 4, 1/2" jet holes at 8487' and the test was made as noted above.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, a net recovery of 70' of cement-cut drilling fluid was found in the drill pipe above the tester, equivalent to 0.5 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hour.

THE 7" SHUT-OFF AT 8487' IS APPROVED.

Andrews - RMB 6/19/57
7" perfs 8301-8548' may aband well
plug all perf to 8280' - DOG check top
pull all csg possible & cap stub 40 cem.
base fresh water sands estimated at 890'
plug 900' - 780' up inside 13 3/8" shoe - DOG check top
plug surface DOG witness

JFF:ES

cc Walter Greenfield
D Johnston

R. D. BUSH, State Oil and Gas Supervisor

By R. N. Walling, Deputy

87312 10-53 28 500 SPO

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 154-334

Mr. Walter Greenfield
P O Box 17126 Foy Station
Los Angeles 17 California

Los Angeles 15 Calif.
March 23 1954

Agent for SIGNAL OIL AND GAS CO

DEAR SIR:

Your well No. "Signal-Stern Realty" 1, Sec. 12, T. 3 S, R. 11 W, S B B & M. (Leffingwell Area) ~~Field~~ in Los Angeles County, was tested for water shut-off on March 17, 1954. Mr. J F Foster, Inspector, designated by the supervisor was present from 6:45 p.m. to 9:30 p.m. as prescribed by law; there were also present G Rice and W Richards, Engineers

Shut-off data: 7 in. 23,26,29 lb. casing was cemented xxx at 8755 ft. on March 13, 1954 in 10-5/8 in. hole with 400 ~~cu. ft.~~ sacks of cement xxx calculated to fill behind casing to 7402 ft. below surface.

Casing record of well: 13-3/8" cem. 803'; 7" cem. 8755'; 4, 1/2" test holes 8301', W.S.O.

Present depth 8760 ft. cmt. bridge 8755 ft. to 8750 ft. Cleaned out cmt. 8745 ft. to 8750 ft. for test. A pressure of 1500 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8750 ft. A Johnston gun and tester was run into the hole on 3-1/2 in. drill pipe ~~tubing~~ with 959 ft. of ~~water~~-mud cushion, and packer set at 8256 ft. with tailpiece to 8277 ft. Tester valve, with 3/8 in. bean, was opened at 3:05 p.m. and remained open for 1 hr. and xxx min. During this interval there was a very light blow for 17 minutes no blow for 23 minutes, and a very light heading blow thereafter.

Mr. Rice reported:

1. A 10-5/8" rotary hole was drilled 803' to 8760'.
2. The 7" casing was cemented as noted above.
3. Cement was drilled out of the 7" casing from 8745'-8750', equivalent to 1 sack, and the hole was cleaned out to 8750'.
4. The 7" casing was shot-perforated with 4, 1/2" jet holes at 8301'.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, a net recovery of 331' of very gassy, slightly oily drilling fluid was found in the drill pipe above the tester, equivalent to 2.5 bbl.
2. There was no evidence of free water.
3. The recording pressure bomb chart showed that the tester valve was open 1 hour.
4. Water filtered from fluid sample taken above the tester tested 310 grains of salt per gallon.

THE 7" SHUT-OFF AT 8301' IS APPROVED.

G
M

cc Walter Greenfield
D S Johnston

JF:FS

R. D. BUSH, State Oil and Gas Supervisor

By R. N. Walling, Deputy

87312 10-53 28,500 SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 154-269

Los Angeles, Calif. March 11, 1954

Mr. Walter Greenfield
P O Box 17126 Foy Station
Los Angeles 17, Calif.
Agent for SIGNAL OIL AND GAS CO

DEAR SIR: "Signal-Stern Realty"

Operations at your well No. 1 Sec. 12, T. 3 S, R. 11 W, S B B. & M., (Leffingwell Area) Field, in Los Angeles County, were witnessed by W C Bradford, Inspector, representative of the supervisor, on March 2, 1954. There was also present C Henderson, Foreman; C Burch, Driller

Casing Record	Junk
13-3/8" cem. 803'; T.D. 7850'	(None)

The operations were performed for the purpose of inspecting blowout prevention equipment and installation

The inspector arrived at the well at 1:00 p.m. and Mr. Henderson reported:

1. A 17" rotary hole was drilled from the surface to 803'.
2. On February 2, 1954, 13-3/8" 54.5 lb. casing was cemented at 803' with 500 sacks of cement.
3. Cement returned to the surface.
4. A 10-5/8" rotary hole was drilled 803'-7850'.

THE INSPECTOR NOTED that the well was equipped with the following blowout prevention equipment:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. A Hydril blowout preventer for closing around the 4-1/2" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 2" mud fill-up line with a 2" high pressure Nordstrom into the 13-3/8" casing below the above equipment.

The inspection was completed at 1:30 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

WCB:ES B/F

cc Walter Greenfield
D S Johnston

R. D. BUSH
State Oil and Gas Supervisor

By R. N. Walling Deputy

82547 7-53 17,650 ② SPO

FORM 165

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Los Angeles 15 California

August 25 19 54

MR. Walter Greenfield Agent
Signal Oil and Gas Co
P O Box 17126 Foy Station
Los Angeles 17 California

DEAR SIR:

In accordance with your notice to drill of January 6, 19 54
(letter, form, conversation)

the following change pertaining to your well No. "Signal-Stern Realty" 1,

Sec. 12, T. 3 S., R. 11 W., S. B. B. & M., Los Angeles County ~~field~~,

District No. 1, is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. P154-61, dated January 14, 1954, has been corrected as follows: The location of the well is 990 feet N'ly, instead of E'ly, along property....

☐ Your notice to dated
(Drill, abandon, etc.)
and our report No. P, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☐ Other:

Corrections Made as Follows:	By Whom
Form 114	
" 115	
" 121	
" 148	
Cards	
Production Reports	
Well Records (Folders	
(Reports	V young
Field Maps	
Map Book	

Yours truly

E. H. MUSSER
State Oil and Gas Supervisor

By R. W. Walling
Deputy Supervisor

RMB:my
cc - Messrs Walter Greenfield
D S Johnston

96308 3-54 6250 S

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

E

No. P 154-61

Los Angeles 15 Calif. January 14 1954

Mr. Walter Greenfield
P O Box 17126 Foy Station
LOS ANGELES 17 Calif.

12/

Agent for SIGNAL OIL AND GAS CO

DEAR SIR:

Your proposal to drill Well No. 1 "Signal-Stern Realty",

Section 12, T. 3 S, R. 11 W, S B B. & M., (Leffingwell Area) ~~Field~~, Los Angeles County,

dated Jan. 6 1954, received Jan. 11 1954, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES
"Location of Well: 990 feet ~~E'ly.~~ N'ly* along property and 990 feet W'ly. at right angles to said line from the S.E. corner of Lot 6, Tract 850.
Elevation of ground above sea level 234 feet ---- datum.
All depth measurements taken from top of Kelly bushing which is 12 feet above ground."

PROPOSAL
"PROPOSED CASING PROGRAM

Size of Casing Inches A.P.I.	Weight	Grade and Type	Top	Bottom	Cementing Depths
13-3/8"	54.5#	J-55 Seamless	Surface	800'	800'
7"	23#, 26#, 29#	N-80 Seamless	Surface	8700'	8700'

Intended zone or zones of completion: To be determined from electrical log.
It is understood that if changes in this plan become necessary we are to notify you before running casing."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT
1. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
2. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

RMB:OH

B/F

cc Walter Greenfield
D S Johnston

R. D. BUSH
State Oil and Gas Supervisor

By R. M. Walling Deputy

Bond Endorsement dated 1-8-54

43268 4-51 25M SPO

*Correction letter 8-25-54; my

FORM 105

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

B-O 1-7-54

DIVISION OF OIL AND GAS
RECEIVED
JAN 11 1954
LOS ANGELES, CALIFORNIA

E

037-08674

Notice of Intention to Drill New Well

This notice and surety bond must be filed before drilling begins

Los Angeles, Calif. January 6, 1953

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence the work of drilling well No. "Signal-Stern Realty" 1, Sec. 12, T. 3 S., B&M R. 11 W., S.B. B. & M., Leffingwell Area ~~Field~~, Los Angeles County.

Legal description of lease Lot 6, Tract 850
(Attach map or plat to scale)

Location of Well: 990 feet N'ly. (Direction) along property section line and 990 feet W'ly. (Direction) at right angles to said line from the S.E. corner of property section Lot 6, Tract 850.

Elevation of ground above sea level 23± feet ---- datum.

All depth measurements taken from top of Kelly bushing which is 12 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
13-3/8"	54.5#	J-55 Seamless	Surface	800'	800'
7"	23#, 26#, 29#	N-80 Seamless	Surface	8700'	8700'

Intended zone or zones of completion: To be determined from electrical log.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
33 GJ3	GJ3 1-12-54	EB	Endorsement dated 1-8-54	EB	EB

It is understood that if changes in this plan become necessary we are to notify you before running casing.

Address Box 17126, Foy Station
Los Angeles 17, California

SIGNAL OIL AND GAS COMPANY
(Name of Operator)

Telephone Number Michigan 8311

By D. L. Johnston CCL

SEND ONE COPY OF NOTICE TO DIVISION OFFICE IN DISTRICT WHERE WELL IS LOCATED

Appendix G - Historical Use Documentation

Leighton



1954 Aerial Photograph

ENVIRONMENTAL RISK INFORMATION SERVICES

HISTORICAL AERIAL REPORT

for the site:
Benchmark East Whittier Phase I ESA
11537 Grovedale Drive
Whittier, CA 90604
PO #:

Report ID: 20180402212
Completed: 4/3/2018

ERIS Information Inc.
Environmental Risk Information Services (ERIS)
A division of Glacier Media Inc.
T: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

Search Results Summary

Date	Source	Scale	Comment
2016	**NAIP** - National Agriculture Information Program	1"=500'	
2014	**NAIP** - National Agriculture Information Program	1"=500'	
2012	**NAIP** - National Agriculture Information Program	1"=500'	
2010	**NAIP** - National Agriculture Information Program	1"=500'	
2005	**NAIP** - National Agriculture Information Program	1"=500'	
1994	**USGS** - US Geological Survey	1"=500'	
1987	**NHAP** - National High Altitude Photography	1"=500'	
1980	**USGS** - US Geological Survey	1"=500'	
1974	**USGS** - US Geological Survey	1"=500'	
1963	**USGS** - US Geological Survey	1"=500'	
1953	**ASCS** - Agriculture and Soil Conservation Service	1"=500'	*BEST COPY AVAILABLE*
1947	**FAIRCHILD** - Private Company	1"=500'	
1936	**FAIRCHILD** - Private Company	1"=500'	
1928	**FAIRCHILD** - Private Company	1"=500'	



Date: **2016**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



Date: **2014**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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ENVIRONMENTAL RISK INFORMATION SERVICES

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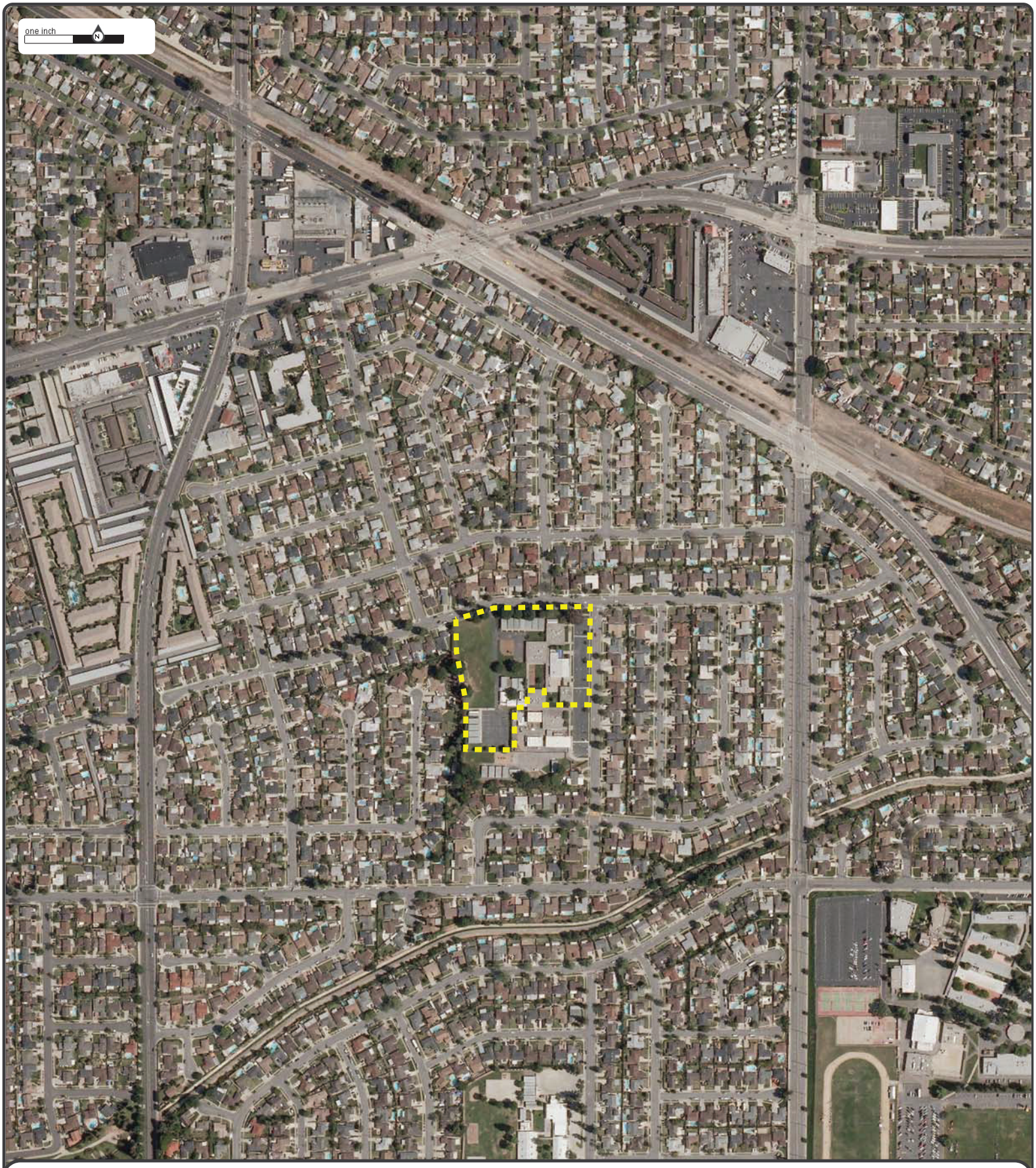
Date: **2012**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

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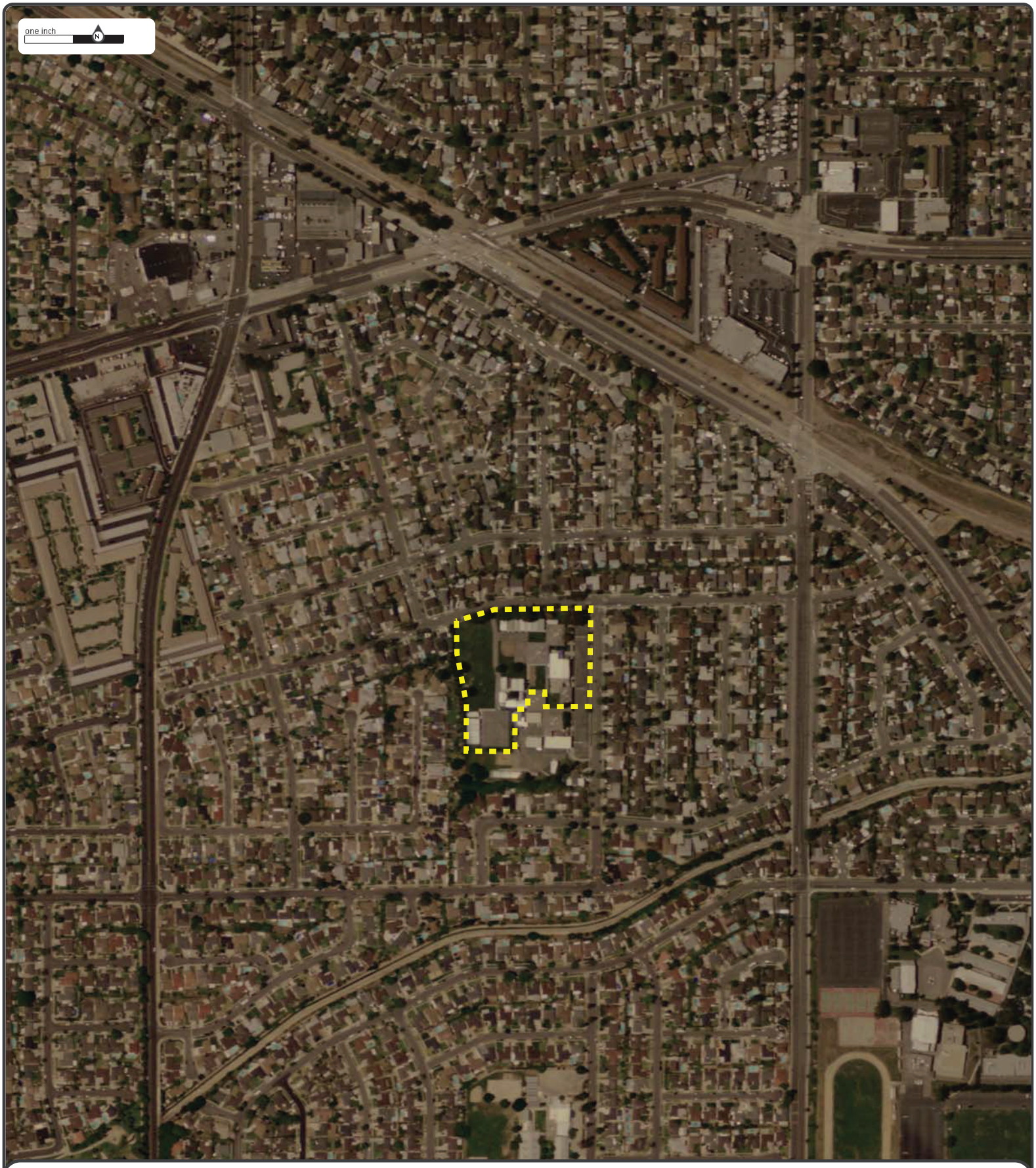
Date: **2010**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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Date: **2005**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1994**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1987**
Source: **NHAP**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1980**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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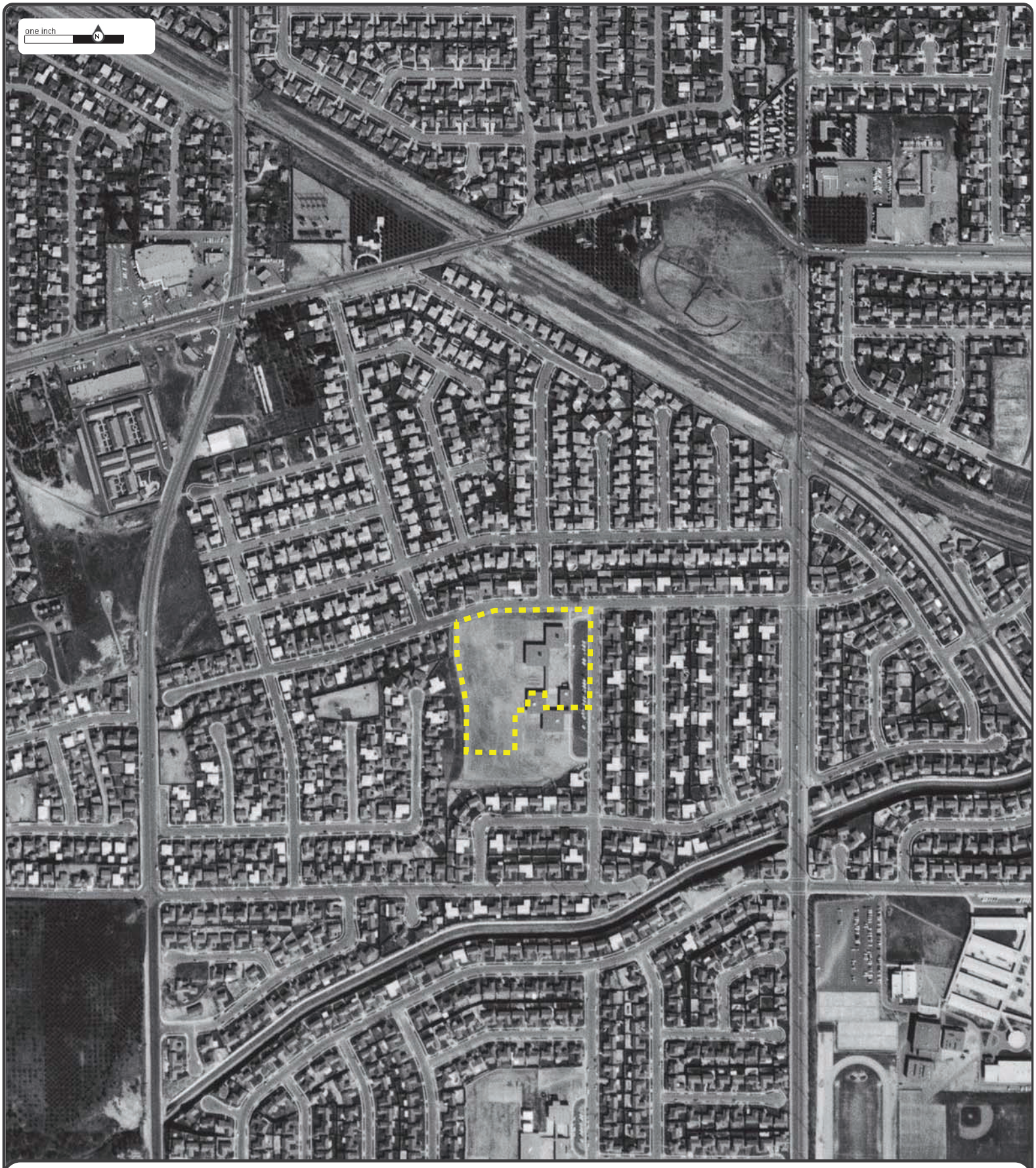
Date: **1974**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1963**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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Date: **1953**
Source: **ASCS**
Scale: **1" to 500'**
Comments: *BEST COPY AVAILABLE*

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1947**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



Date: **1936**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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Date: **1928**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments:

Subject: 11537 Grovedale Drive Whittier CA
Approx Center: 33.92709 / -117.9893

N

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ENVIRONMENTAL RISK INFORMATION SERVICES

FIRE INSURANCE MAP RESEARCH RESULTS

Date: 4/2/2018

Order Number: 20180402212
Site Name: Benchmark East Whittier Phase I ESA
Address: 11537 Grovedale Drive,Whittier,CA

ERIS has searched our in-house collection of Fire Insurance Maps for the address at:
11537 Grovedale Drive,Whittier,CA

Please note that no information was found for your site or adjacent properties.

If you have any questions regarding the enclosed information, please do not hesitate to contact us.

Individual Fire Insurance Maps for the subject property and/or adjacent sites are included with the ERIS environmental database report to be used for research purposes only and cannot be resold for any other commercial uses other than for use in a Phase I environmental assessment.

Address: 38 Lesmill Rd Unit 2, Toronto, ON M3B 2T5
Phone: 1-866-517-5204
info@erisinfo.com • www.erisinfo.com

ENVIRONMENTAL RISK INFORMATION SERVICES

TOPOGRAPHIC MAP RESEARCH RESULTS

Date: 2018-04-02

Order Number: 20180402212

Site Name: Benchmark East Whittier Phase I ESA
Address: 11537 Grovedale Drive, Whittier, CA, 90604

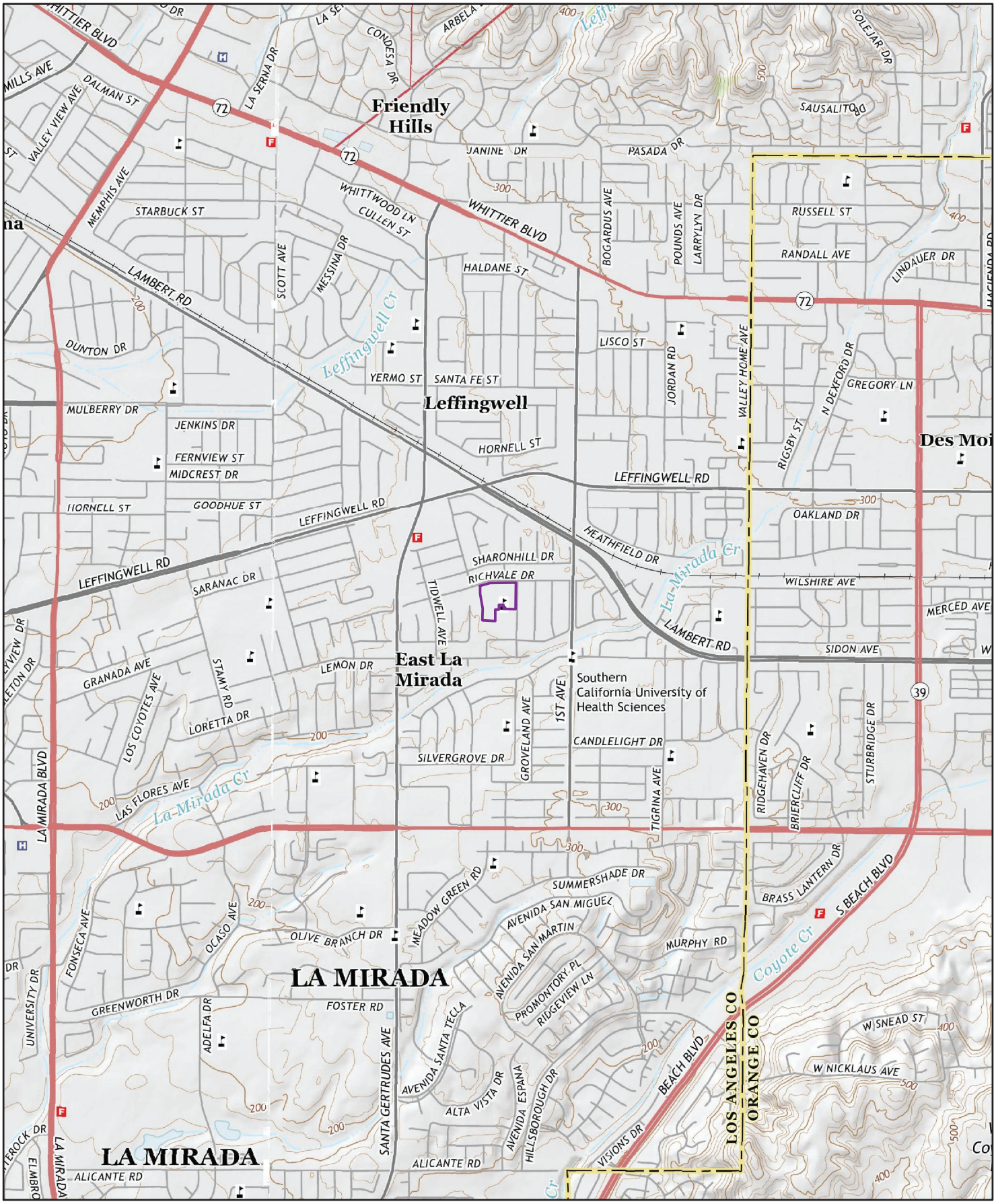
We have searched USGS collections of current topographic maps and historical topographic maps for the project property. Below is a list of maps found for the project property and adjacent area. Maps are from 7.5 and 15 minute topographic map series, if available.

Year	Map Series
2015	7.5
1981	7.5
1974	7.5
1972	7.5
1964	7.5
1952	7.5
1950	7.5
1935	7.5
1927	7.5
1942	15
1901	15
1898	15
1896	15

Topographic Maps included in this report are produced by the USGS and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property.

No warranty of Accuracy or Liability for ERIS: *The information contained in this report has been produced by ERIS Information Inc. (in the US) and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS', using Topographic Maps produced by the USGS. This maps contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.*

Address: 38 Lesmill Road Unit 2, Toronto, ON M3B 2T5
Phone: 1-866-517-5204 Fax: 416-447-7658
info@erisinfo.com www.erisinfo.com



2015

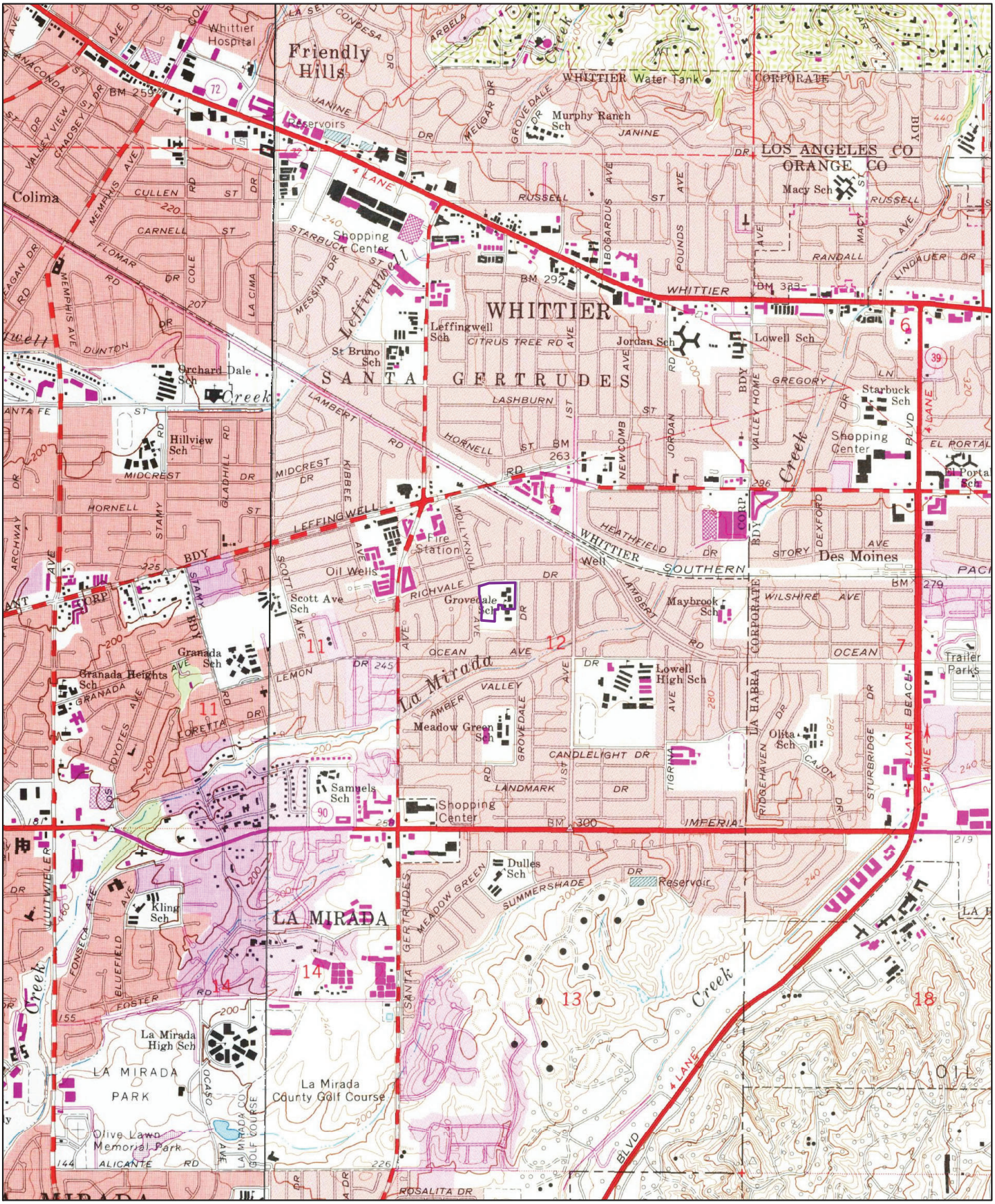
Miles
0 0.2 0.4 0.8

Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ENVIRONMENTAL RISK INFORMATION SERVICE



1981

0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE



1974

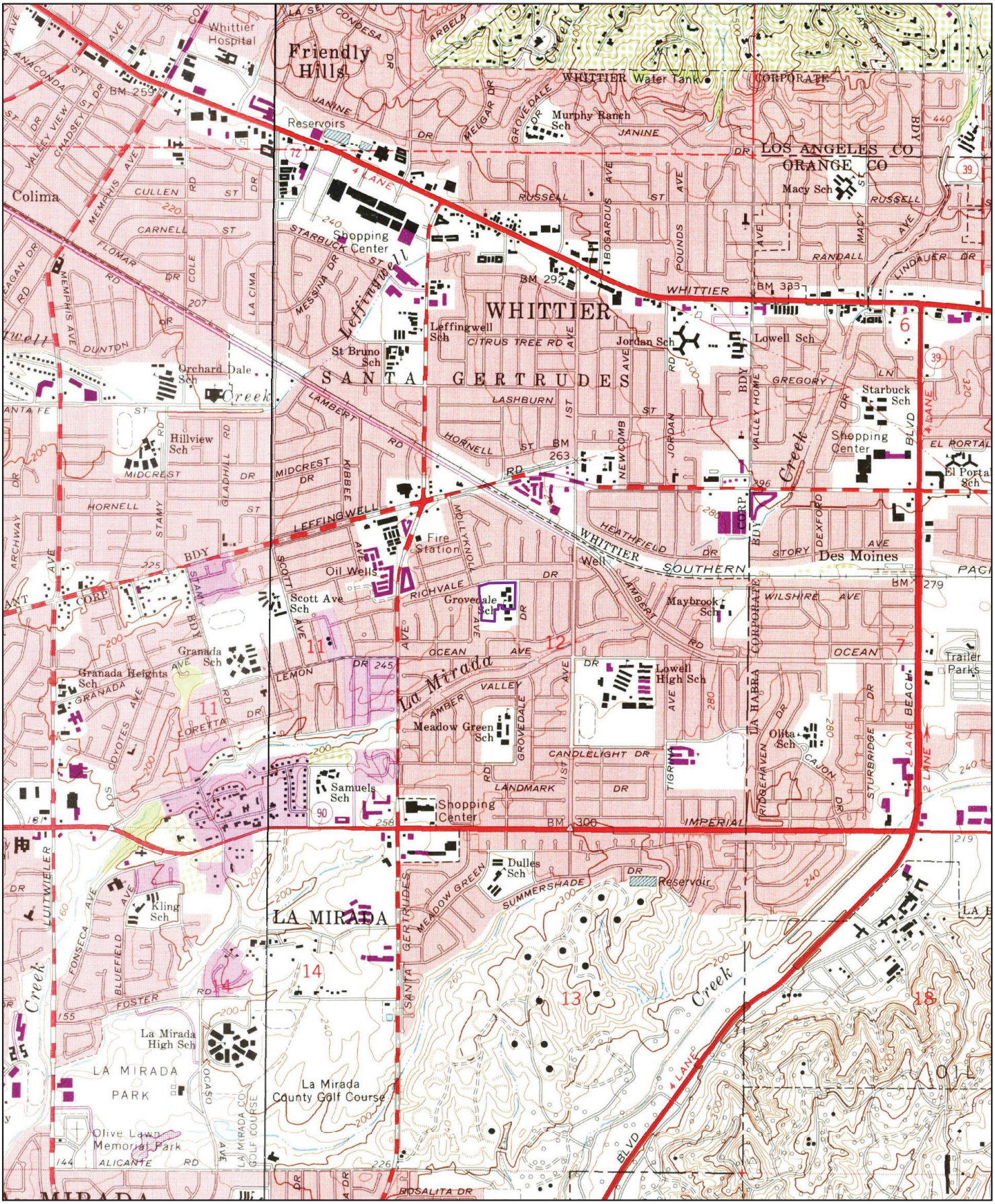
0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICE



1972

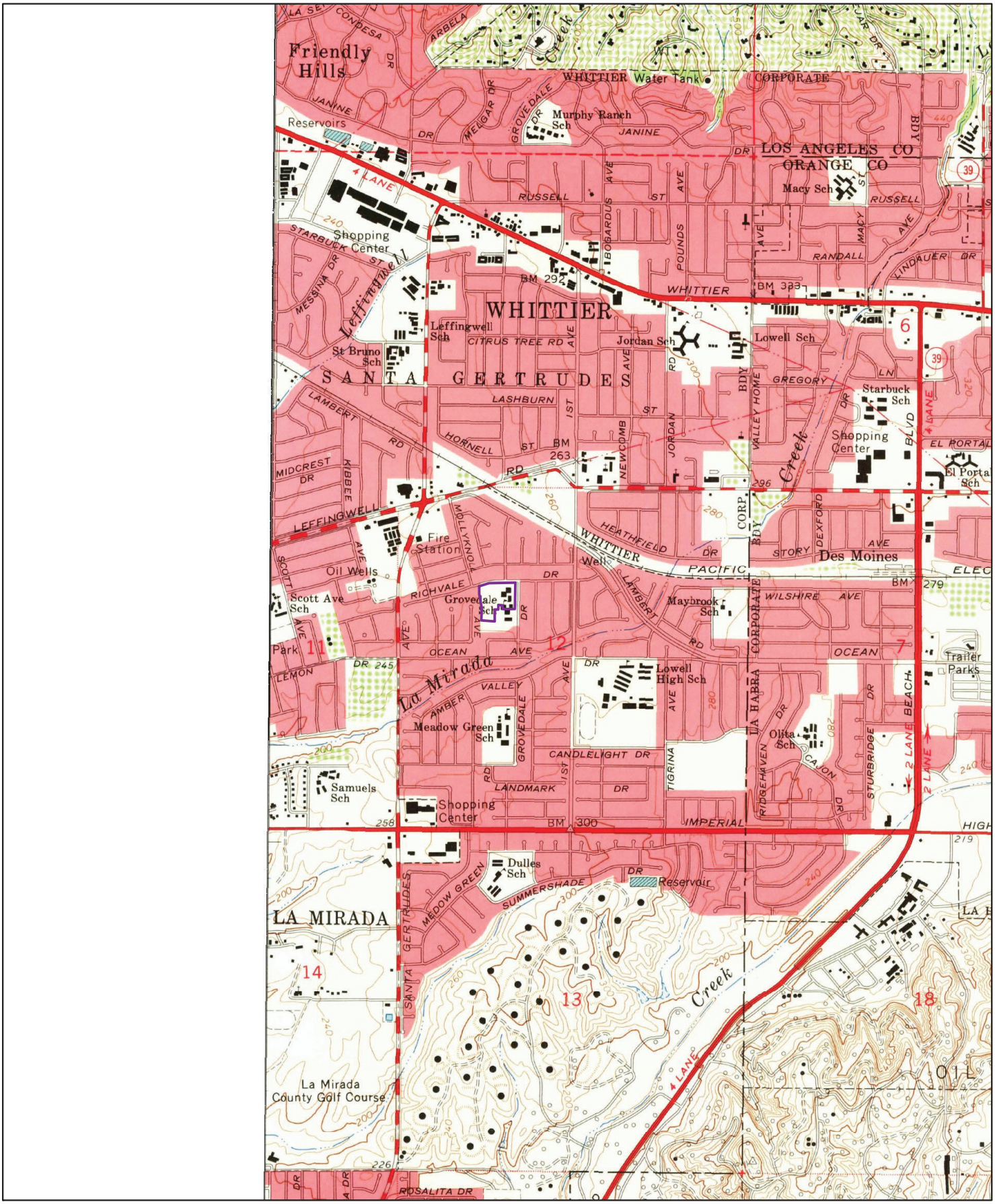
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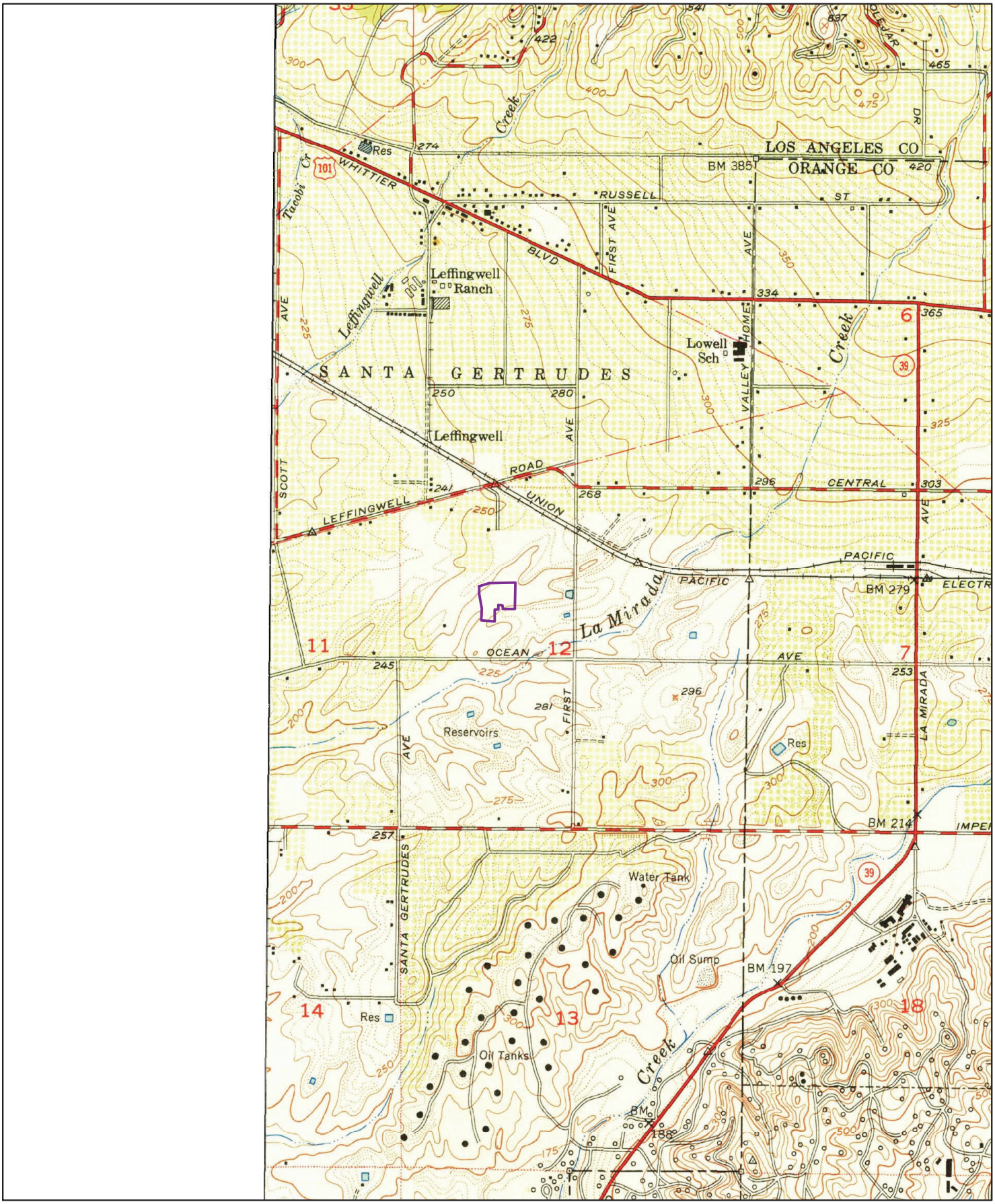
Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE


Friendly Hills
WHITTIER Water Tank
CORPORATE
Murphy Ranch Sch
JANINE
Reservoirs
LOS ANGELES CO
ORANGE CO
Macy Sch
RUSSELL
4 LANE
Shopping Center
STARBUCK ST
MESSINA DR
Leffingwell
BM 292
WHITTIER
BM 333
RANDALL
LINDAUER DR
Leffingwell Sch
CITRUS TREE RD
Jordan Sch
Lowell Sch
St Bruno Sch
SANTA GERTRUDES
LASHBURN ST
GREGORY LN
Starbuck Sch
LAMBERT RD
HORNELL ST
BM 263
MIDCREST DR
KIBBEE
Shopping Center
EL PORTAL
El Porta Sch
LEFFINGWELL
Fire Station
HEATHFIELD DR
WHITTIER
PACIFIC
Des Moines
STORY AVE
DEXFORD
Oil Wells
Well
BM 279
Scott Ave Sch
RICHVALE
Grovedale Sch
Maybrook Sch
WILSHIRE AVE
Park
OCEAN AVE
La Mirada
Lowell High Sch
Trailer Parks
LEMON
DR 245
VALLEY
AMBER
Meadow Green Sch
CANDLELIGHT DR
LA HABRA
Olita Sch
2 LANE
BEACH
Samuels Sch
LANDMARK DR
Shopping Center
BM 300
IMPERIAL
Dulles Sch
Reservoir
SUMMERSHADE
MEADOW GREEN
LA MIRADA
SANTA GERTRUDES
La Mirada County Golf Course
Creek
4 LANE
RIDGEHAVEN DR
STURBRIDGE
CAJON
TIGRINA
RIDGEHAVEN
RIDGEHAVEN DR
RIDGEHAVEN DR
RIDGEHAVEN DR



1952

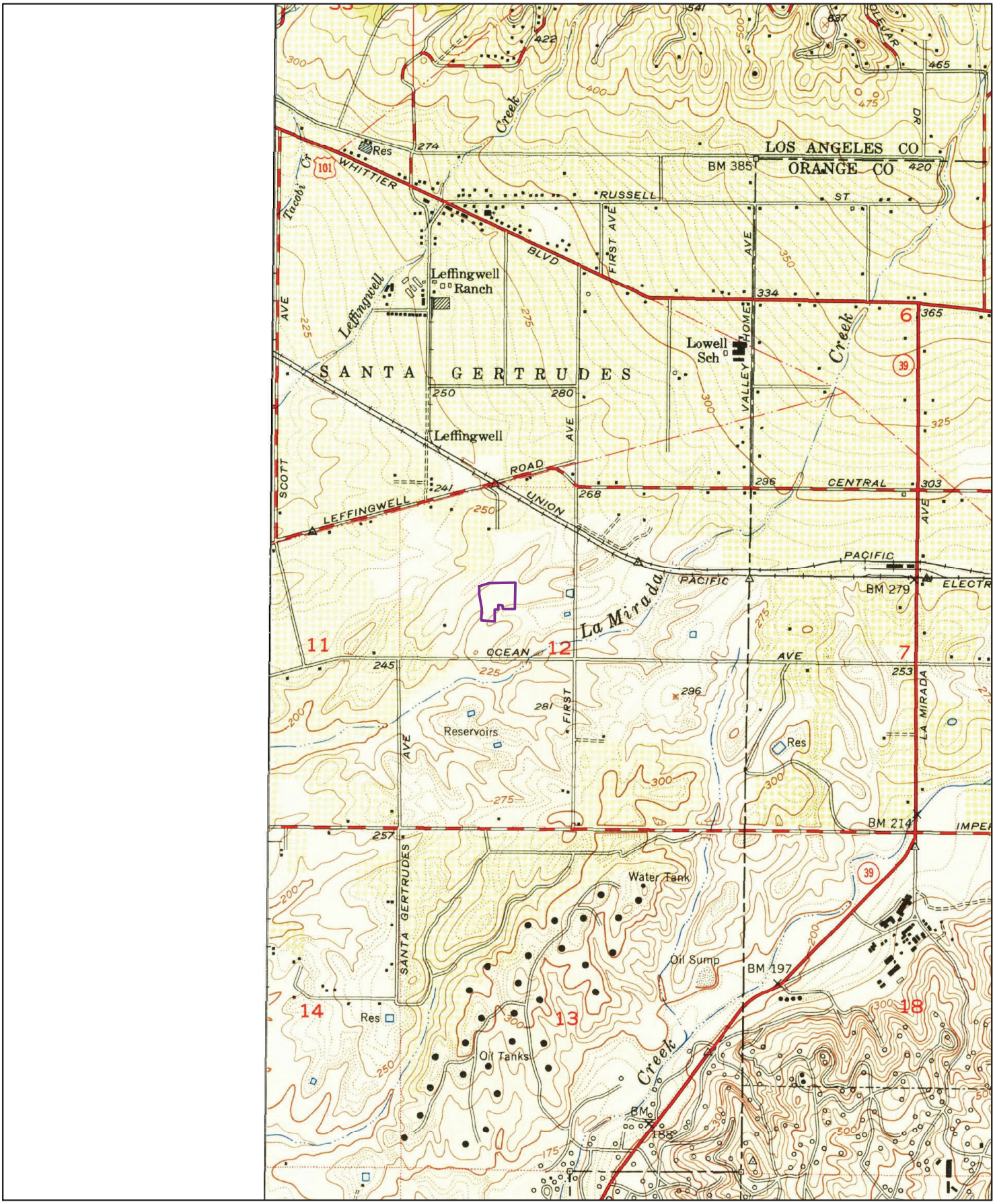
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Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE



1950

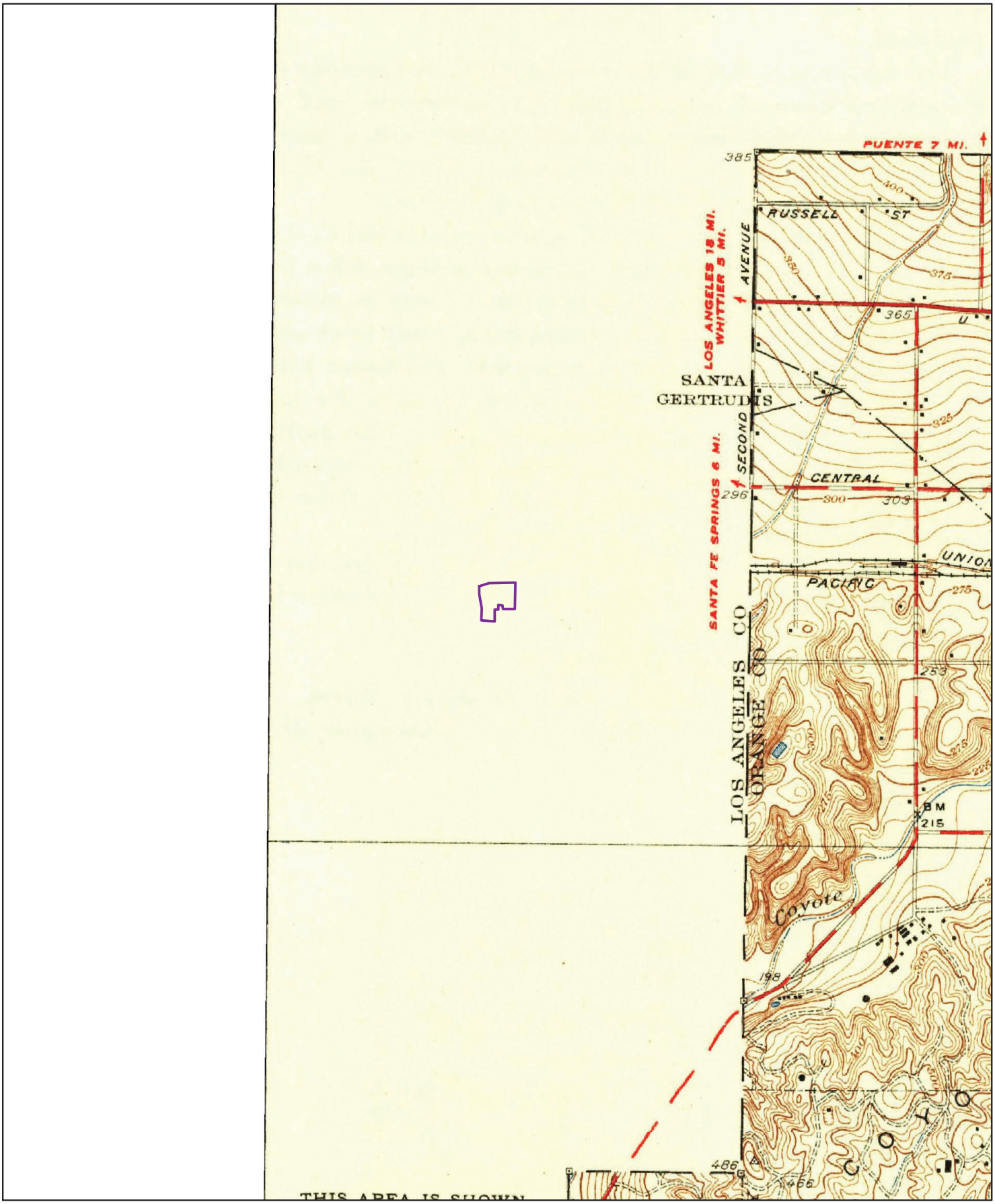
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Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ENVIRONMENTAL RISK INFORMATION SERVICE



1935

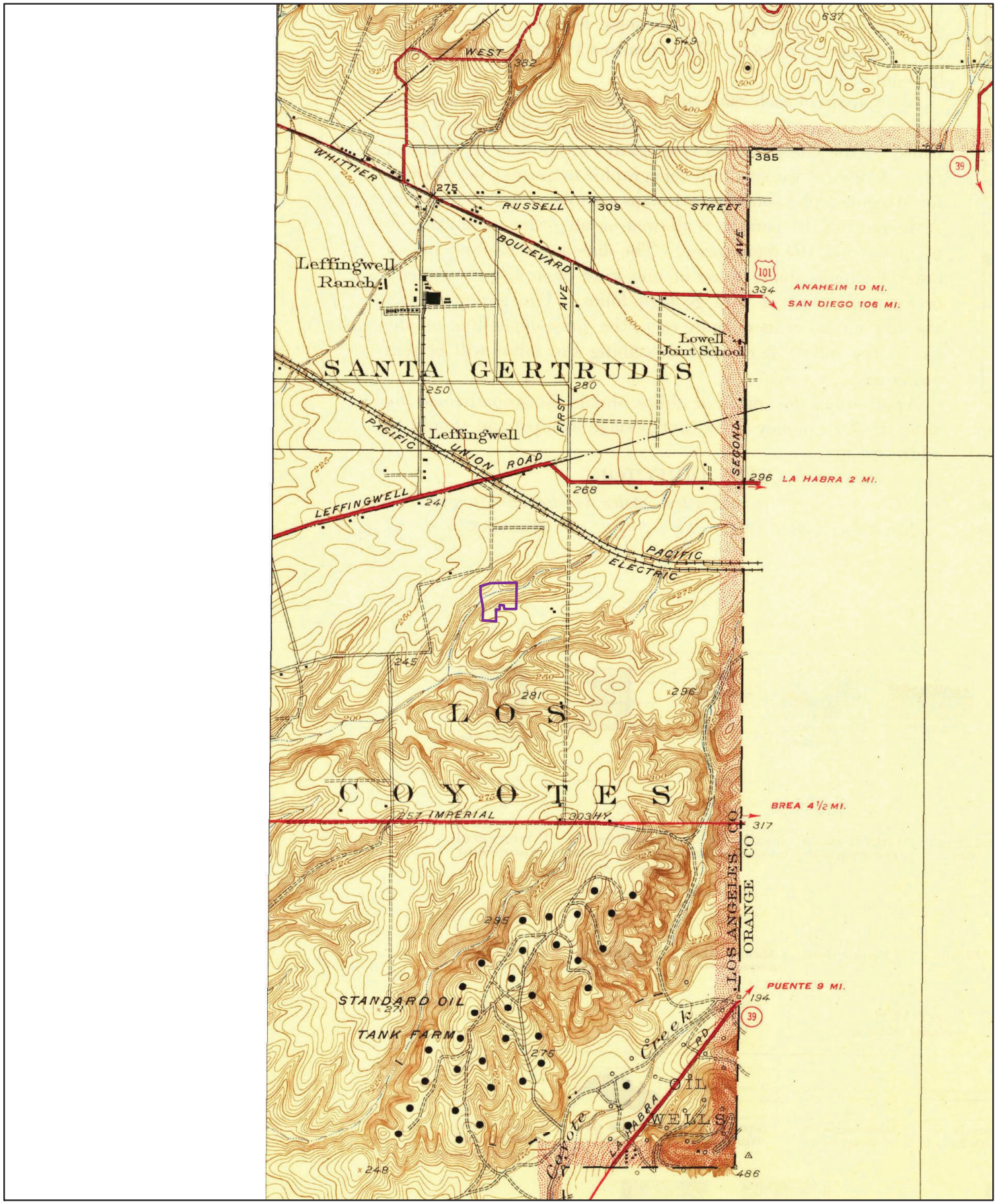
0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): Coyote Hills,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE



1927

0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): La Habra,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE



1942

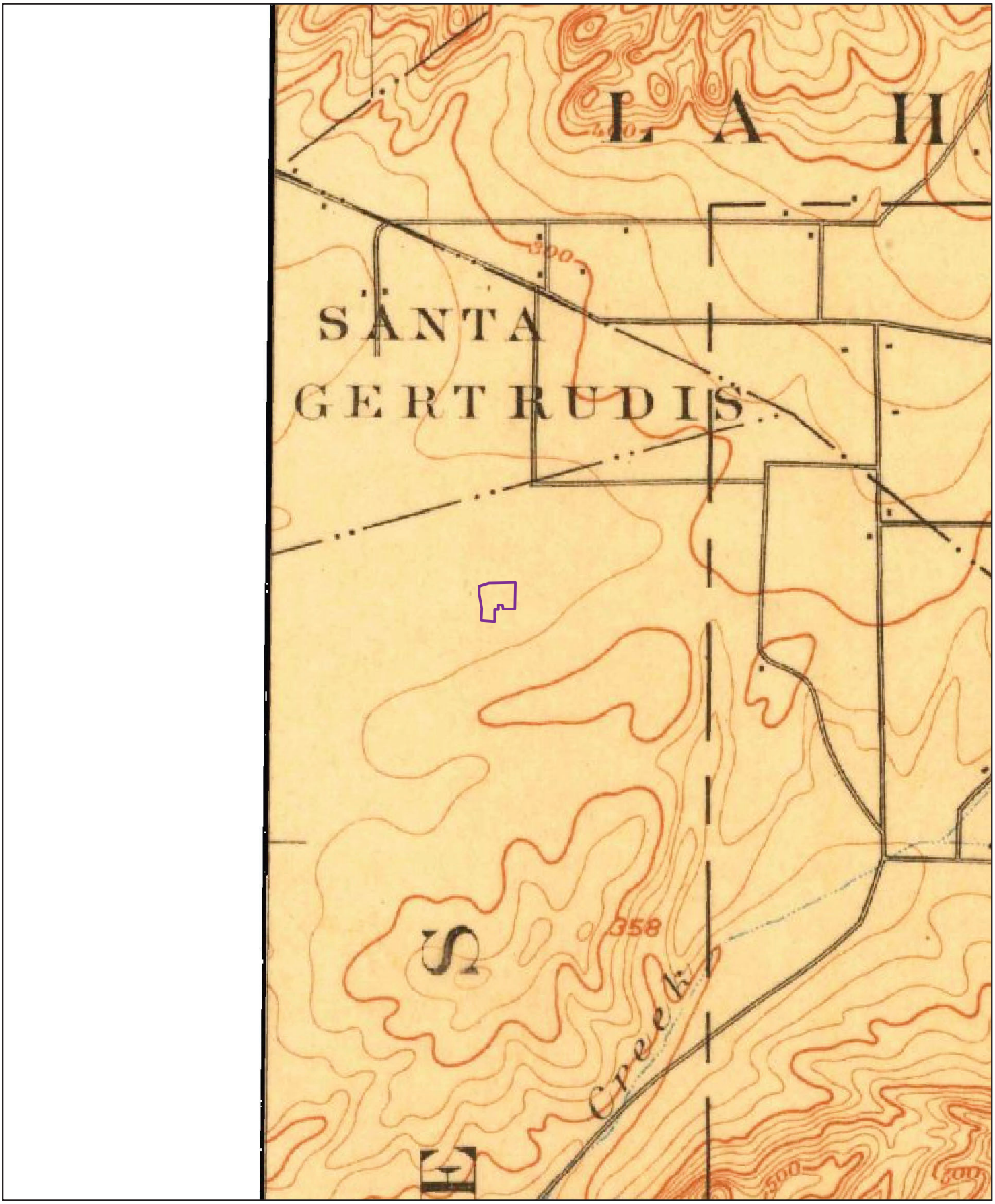
0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): Anaheim,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICE



1901

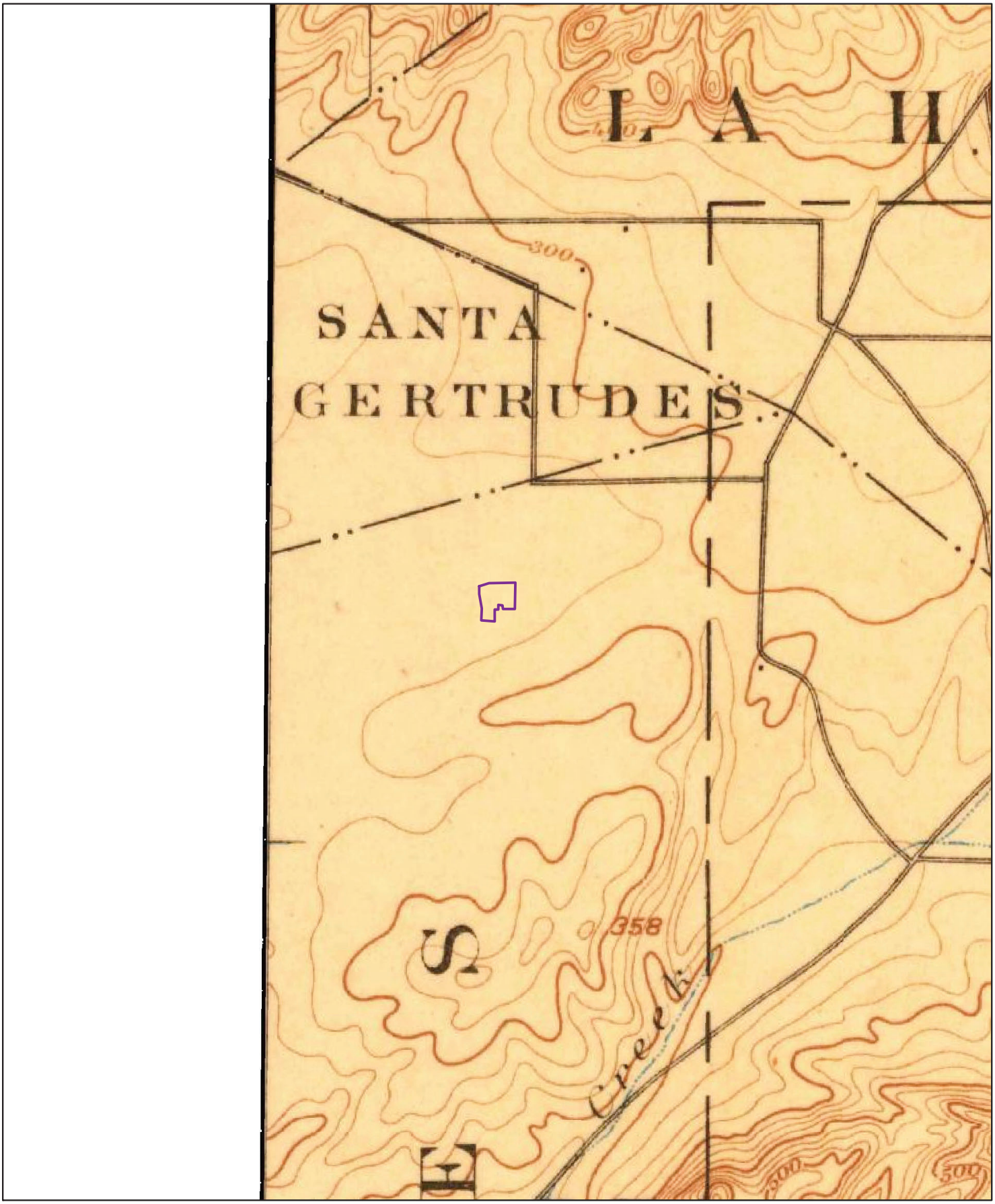
0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): Anaheim,CA

Source: USGS 15 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICE



1898

0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): Anaheim,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICE



1896

0 0.2 0.4 0.8 Miles

Order No. 20180402212

Quadrangle(s): Anaheim,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICE

ENVIRONMENTAL RISK INFORMATION SERVICES

HISTORICAL DIRECTORY REPORT

for the site:

Benchmark East Whittier Phase I ESA
11537 Grovedale Drive
Whittier, CA 90604
PO #:

Report ID: 20180402212
Completed: 4/6/2018

Ecolog ERIS Ltd.
Environmental Risk Information Service (ERIS)
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

Search Results Summary

Date	Source	Comment
2016	DIGITAL BUSINESS DIRECTORY	
2009	DIGITAL BUSINESS DIRECTORY	
2006	DIGITAL BUSINESS DIRECTORY	
2001	HAINES	
1996	HAINES	
1989	HAINES	
1985	HAINES	
1980	HAINES	
1975	HAINES	
1972	HAINES	
1965	STREET ADDRESS DIRECTORY	
1961	STREET ADDRESS DIRECTORY	
1944	STREET ADDRESS DIRECTORY	
1941	STREET ADDRESS DIRECTORY	
1936	STREET ADDRESS DIRECTORY	

4/6/2018

RE: CITY DIRECTORY RESEARCH
Benchmark East Whittier Phase I ESA
11537 Grovedale Drive Whittier, CA

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:

11490-11590 of Grovedale Drive
15950-16050 of Richvale Drive

2016 GROVEDALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

10702 NORTH COUNTY PRINTING CORP...Printing
10702 NORTH COUNTY PRINTING CORP...Commercia
11537 CARDEN SCHOOL OF WHITTIER...Schools
11537 CARDEN SCHOOL OF WHITTIER...Child Care
12025 MEADOW GREEN ELEMENTARY SCHOOL...S…
12025 MEADOW GREEN ELEMENTARY SCHOOL.....
12025 OPTIONS SC MEADOW GREEN...Child Care S

2016 RICHVALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

16002 ADAMAR PRODUCTIONS...Entertainment Bur

2009 GROVEDALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

11429 PROTECH LOCK & SECURITY...Lock And Key
11429 REPUBLIC MACHINERY...Unclassified
11537 CARDEN SCHOOL OF WHITTIER...Element S
11537 CARDEN SCHOOL OF WHITTIER...Schools
11537 LEFFINGWELL AFTER SCHOOL PRGRM...Eleme
11537 YMCA...Social Services
11626 DA BESHIRS INC...Unclassified<
12025 MEADOWGREEN SCHOOL...Schools
12025 MEADOWGREEN SCHOOL...Element Secon Sc

2009 RICHVALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

16429 CREATIVE INTARSIA DESIGNS...Whol Nondu

2006 GROVEDALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

11429 PROTECH LOCK & SECURITY...Locksmiths
11537 CARDEN SCHOOL OF WHITTIER...Elementary
11537 YMCA...Other Individual & Family Svcs<
12025 MEADOW GREEN ELEMENTARY SCHOOL...E…

2006 RICHVALE DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

15737 A1 CASTLE CARPET CLEANING...Carpet & U

11435	MILLHOLLIN B T	562-943-6835	
11441	●COPLEY Dennis	OO	+1
	KLIMENT Martin Jr	562-943-1268	

X SHARON HILL DR

11502	●LOPEZ Alejandro	OO	9
11508	●LIZARDE Hector	OO	+1
11514	WINSLOW Henry S	562-943-5681	
11526	CASHION Robt J	562-947-1080	
	●MOLTER Fred L	562-943-6859	
11533	XXXX	OO	
11537	★ **CARDEN NURSERY SCHOOL**	**562-694-1879**	7
	★ **CARDEN SCHOOL OF LA HABRA**	**562-694-1879**	7
	★ **LEFFINGWELL AFTER SCHOOL PRGRM**	**562-943-2919**	
11538	●SCHULER Kenneth B	562-943-1095	5

X RICHVALE DR

11602	●COSIO Stephen	OO	7
	HAMPTON Jolyn	562-902-1563	+1
11614	●HUBBERT Judy	562-947-8350	
	●HUBBERT Keith	562-947-8350	
	MONTES Lupe	562-943-8748	0
11620	●RUBALCAVA Sara	OO	7

15924	●POSIK Timothy	OO	0
15925	●KEMP Mary K	562-947-7324	4
15930	●MARTINEZ Dominic	OO	9

X MOLLYKNOLL AV

16001	●SORIANO Angel	OO	9
16002	●ARELLANES Robert	OO	0
16007	●HUANG Sam	OO	+1
	LONG J B	562-943-6286	
16011	●SARMIENTO Anthony	OO	+1
16019	●FERNANDEZ Gemma	OO	9

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2001
SOURCE: HAINES

RICHVALE DRIVE - B

RICHVALE DR 90604 CONT

16025	●RICE Daniel	OO	9
16031	●ODLE Scott	OO ⊕	9
16037	●VANHORN Sally	OO	7
16043	●VOS Burgh	OO	+1
X	KENTUCKY AV		
16057	CAMP M E	562-943-7375	
	●JOHNSON Brian	OO	+1
16063	●KAMPA David	OO	+1
16069	●BECKER Anne	OO	9
X	GROVEDALE DR		
16075	●HURLEY Harlow W	562-943-8118	

1996
SOURCE: HAINES

GROVEDALE DRIVE

11435	●MILLHOLLIN Donald R	943-6835	
11440	●MCCOID Kenneth	OO	+6
11441	●KLIMENT Martin Jr	943-1268	
11502	●LOPEZ Alejandro	OO	+6
11508	●CURTIN David G	943-4289	
11514	★ALPHA CARPET&UPHLST	943-7732	
	●WINSLOW Henry S	943-5681	
11520	●ORTEGA Lorenzo	OO	+6
11526	●MOLTER Fred L	943-6859	
11532	●ABBATE Russell	OO	+6
11533	XXXX	OO	
11537	★LEFFINGWELL PROGRAM	943-2919	1
	★RICE PREPATORY SC	947-3344	3
11538	●SCHULER Kenneth B	943-1095	5
11602	●FORQUER Norman E	947-1120	
11608	●KAMEI Beverly	OO	+6
11614	HUBBERT Judy	947-8350	
	●HUBBERT Keith	947-8350	
11620	●RUBALCAVA Sara	OO	+6
11626	●BESHIRS David	OO	+6
11627	●NOLTENSMEIER James	OO	+6
11632	●GALLENO Humberto	OO	+6

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1996
SOURCE: HAINES

RICHVALE DRIVE

15925	•KEMP Mary K	947-7324
15930	XXXX	OO
16001	XXXX	OO
16002	•MONTES Yolanda	OO
16007	•LONG J B	943-6286
16011	•LEDEZMA Martha	OO
16019	•ALVAREZ Raquel	OO
16025	**★HACIENDA ROOFING**	**943-8246**
	•RACE Danl	943-3273
16031	•ODLE Scott	OO
16037	•REYNOLDS Duke W	943-8868
16057	•CAMP M E	943-7375
16063	•APODACA Michael	OO
16069	•BECKER Marshall	OO
16075	•HURLEY Harlow W	943-8118
16081	•FOLLIOTT Gerry	OO
16087	•EMERY Charles	OO
16093	•DIMAURO Jose	943-055[illegible]

1989
SOURCE: HAINES

GROVEDALE DRIVE

11440	XXXX	00
11441	KLIMENT Martin Jr	943-1268
11508	CURTIN David G	943-4289
11514	**★ALPHA CARPET&UPHLST**	**943-7732**
	WINSLOW Henry S	943-5681
11526	MOLTER Fred L	943-6859
11533	XXXX	00
11537	XXXX	00
11538	SCHULER Kenneth B	943-1095
11602	FORQUER Norman E	947-1120
11608	KAMEI G	943-6294
11614	DALY Delna	947-1621
	DALY Jas A	947-1621
11620	XXXX	00
11626	XXXX	00
11627	FORD C E	947-2119 +9
	LYONS Michael	943-4401
	LYONS T J	943-4401
11632	BOARDMAN Wm W	947-1742
11638	SAMUELSON Gordon	943-5407
	SAMUELSON Jeri	943-5407
11703	XXXX	00

1989
SOURCE: HAINES

RICHVALE DRIVE

15918	XXXX	00	
15919	XXXX	00	
15924	COULOMBE Ron	943-6991	5
15925	OBANNON Jos	947-3086	6
15930	XXXX	00	
16001	XXXX	00	
16007	LONG J B	943-6286	
16011	FROHNAPFEL John A	943-8916	
16019	XXXX	00	
16025	SHEARHART Omer D	947-1629	+9
16031	XXXX	00	
16037	REYNOLDS Duke W	943-8868	
16043	ROBINSON Wm J	943-5341	
16057	CAMP M E	943-7375	
16063	XXXX	00	
16069	XXXX	00	
16075	HURLEY Harlow W	943-8118	
16081	XXXX	00	
16087	XXXX	00	
16093	DIMAURO Jose	943-0559	
16097	HURST I	943-3352	
	HURST J	943-3352	
16103	XXXX	00	
16111	KAMENCA M G	943-5668	
16117	WALKER Peter G	943-3103	7

1985
SOURCE: HAINES

GROVEDALE DRIVE

11435	MILLHOLLIN BERTHA	943-6835	
	MILLHOLLIN DONALD R	943-6835	
11440	XXXX	00	
11441	KLIMENT MARTIN JR	943-1268	
11506	CURTIN DAVID G	943-4289	
11514	ALPHA CARPET&UPHLST	943-7732	
	WINSLOW HENRY S	943-5681	
11526	MOLTER FRED L	943-6859	7
11533	XXXX	00	
11537	LOWELL SCHOOL	947-9589	+5
11538	SCHULER KENNETH B	943-1095	
11602	FORQUER NORMAN E	947-1120	
11608	KAMEI G	943-6294	
11614	DALY JAS A	947-1621	7
11620	XXXX	00	
11626	XXXX	00	
11627	LYONS T J	943-4401	
11632	BOARDMAN WM W	947-1742	
11638	SAMUELSON GORDON	943-5407	6
11703	HANSEN RICHARD J	943-1531	
11711	POWERS CHAS M	943-7703	1
11902	XXXX	00	

1985 RICHVALE DRIVE
SOURCE: HAINES

15907	XXXX	00	
15913	XXXX	00	
15914	ALVAREZ BERNARDO	943-2620	
15918	XXXX	00	
15919	XXXX	00	
15924	COULOMBE RON	943-6991	+5
15925	XXXX	00	
15930	XXXX	00	
16001	NELSON MYRON A	943-5363	
16007	LONG J B	943-6286	
16011	FROHNAPFEL JOHN A	943-8916	6
16019	XXXX	00	
16025	BOYD DONALD W	943-5981	9
16031	XXXX	00	
16037	REYNOLDS DUKE W	943-8868	
16043	ROBINSON WM J	943-5341	
16057	CAMP M E	943-7375	
16063	JANTZ HERBERT A	943-5447	1
16069	BECKER MARSHALL E	943-2454	
16075	HURLEY HARLOW W	943-8118	
16081	LASKO FRIEDA	943-1550	
16087	XXXX	00	
16093	DIMAURO JOSE	943-0559	6
16097	HURST J	943-3352	0
16103	XXXX	00	

1980 GROVEDALE DRIVE
SOURCE: HAINES

11440	MCCOID KENNETH B	943-2270	
11441	KLIMENT MARTIN JR	943-1268	
11508	CURTIN DAVID G	943-4289	
11514	ALPHA CARPET CLEANR	943-7732	
	WINSLOW HENRY S	943-5681	5
11526	MOLTER FRED L	943-6859	7
11537	XXXX	00	
11538	SCHULER KENNETH B	943-1095	
11602	FORQUER NORMAN E	947-1120	3
11608	KAMEI G	943-6294	
11614	DALY JAMES A	947-1621	7
11620	XXXX	00	
11626	BALES POWELL C	943-2681	
11627	LYONS MICHAEL P	943-4401	4
11632	BOARDMAN WM W	947-1742	

1980
SOURCE: HAINES

RICHVALE DRIVE

15919	XXXX	00	
15925	OBANNON JOS E JR	943-0506	
15930	REYNOLDS VIRGINIA	943-1802	4
16001	NELSON MYRON A	943-5363	
16007	LONG J B	943-6286	
16011	FROHNAPFEL JOHN A	943-8916	6
16019	XXXX	00	
16025	BOYD DONALD W	943-5981	9
16031	XXXX	00	
16037	REYNOLDS DUKE W	943-8868	
16043	ROBINSON WM J	943-5341	
16057	CAMP LOGAN L	943-7375	3
16063	BREY JOHN	943-6420	9
16069	BECKER MARSHALL E	943-2454	
16075	HURLEY HARLOW W	943-8118	
16081	LASKO PHILIP C	943-1550	
16087	XXXX	00	
16093	DIMAURO JOSE	943-0559	6
16097	HURST JACK	943-3352	+0
16103	HARAKO JEAN M	947-3602	8
16111	KAMENCA M G	943-5668	3
16117	DOMINGUE LORRAINE	943-1196	
16118	WILSON GEORGE	947-3600	8
16123	DECO ENGINEERING	947-5831	+0

1975
SOURCE: HAINES

GROVEDALE DRIVE

11435	MILLHOLLIN BERTHA	943-6835	4
	MILLHOLLIN DONALD	943-6835	4
11440	MCCOID KENNETH B	943-2270	
11441	KLIMENT MARTIN JR	943-1268	
11508	CURTIN DAVID G	943-4289	
11514	*ALPHA MAINTENANCE	943-7732	
	WINSLOW HENRY S	943-5681	+5
11526	FORTE HERBERT J	943-1910	
11537	*GROVEDALE SCHOOL	943-0211	
11538	SCHULER KENNETH B	943-1095	
11602	FORQUER NORMAN E	947-1120	3
11608	KAMEI G	943-6294	
11614	EVANS KENNETH R	943-3664	
11620	XXXX	00	
11626	BALES POWELL C	943-2681	
11627	LYONS MICHAEL P	943-4401	4
11632	BOARDMAN WM W	947-1742	

1975 RICHVALE DRIVE
SOURCE: HAINES

15918	GUDVANGEN JOHN H JR	947-1206	
15919	BAKER JOS S	943-5836	
15924	WRIGHT FRED M	943-4197	
15925	OBANNON JOS E JR	943-0506	
15930	REYNOLDS VIRGINIA	943-1802	4
16001	NELSON MYRON A	943-5363	
16002	XXXX	00	
16007	LONG J B	943-6286	
16019	XXXX	00	
16031	NIELSEN BETTY	943-0511	4
	NOMER SYLVESTER I	943-0511	4
16037	REYNOLDS DUKE W	943-8868	
16043	ROBINSON WM J	943-5341	
16057	CAMP LOGAN L	943-7375	3
16063	XXXX	00	
16069	BECKER MARSHALL E	943-2454	
16075	HURLEY HARLOW W	943-8118	
16081	LASKO PHILIP C	943-1550	
16087	EMERY CHAS L	943-4004	
16093	BORCHERDING MILTON	943-5433	
16097	HURST JOHN J	943-3352	
16103	BULCHAK WALTER	943-7514	
16111	KAMENCA M G	943-5668	3

1972 GROVEDALE DRIVE
SOURCE: HAINES

11440	MCCOID KENNETH B	943-2270
11441	KLIMENT MARTIN JR	943-1268
11508	CURTIN DAVID G	943-4289
11514	*ALPHA MAINTENANCE	943-7732
	WINSLOW HENRY S	943-7732
	WINSLOW NANCY	943-5681+2
11526	FORTE HERBERT J	943-1910
11537	*GROVEDALE SCHOOL	943-0211
11538	SCHULER KENNETH B	943-1095
11608	KAMEI G	943-6294
11614	EVANS KENNETH R	943-3664
11620	XXXX	00
11626	BALES POWELL C	943-2681

Report ID: 20180402212 - 4/6/2018
www.erisinfo.com

1972
SOURCE: HAINES

RICHVALE DRIVE

15925	OBANNON JOS E JR	943-0506
15930	FORD JACK E	943-8391+2
16001	NELSON MYRON A	943-5363
16002	ROBERTSON VIRGIL L	943-6086
16007	LONG J B	943-6286
16019	STANCHFIELD GLENN	943-5246
16031	KOCOUREK RUDOLPH	943-1997
16037	REYNOLDS DUKE W	943-8868
16043	ROBINSON WM J	943-5341
16057	ROBINSON CHAS N JR	943-1320
16063	WEIDEMAN DAVID J	943-4451+2
16069	BECKER MARSHALL E	943-2454
16075	HURLEY HARLOW W	943-8118
16081	LASKO PHILIP C	943-1550
16087	EMERY CHAS L	943-4004
16093	BORCHERDING M G JR	943-5433
	BORCHERDING MILTON	943-5433
16097	HURST JOHN J	943-3352
16103	BULCHAK WALTER	943-7514
16117	DOMINGUE LORRAINE	943-1196

1965
SOURCE: STREET ADDRESS DIRECTORY

GROVEDALE DRIVE

11440	MC COID, K B	943-2270
11441	KLIMENT JR, M	WI 31268
11502	TEACH, M J	943-6974
11508	CURTIN, D G	WI 34289
11514	ALPHA MAINT SERVICE	943-7732
11520	ZILINSKY, FRANK W	943-5591
11526	FORTE, H J	WI 31910
11538	MANGOLD, J L	WI 32336
11602	SHERWOOD, VERONA	943-2631
11614	CLINE, CHARLES C	943-8126

1965 RICHVALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

15913	SHANK, DAVID M	943-2226
15914	MC NEW, E D	WI 34762
15918	CLOWARD, GEORGE R	943-5784
15919	BAKER, JOSEPH S	943-5836
15924	WRIGHT, FRED M	943-4197
15925	MORANVILLE, E B	943-6013
16001	NELSON, M A	943-5363
16007	LONG, J B	943-6286
16011	HASKIN, RICHARD	943-7622
16019	MC LARTY, ROSS D	943-3036
16025	PAYNTER, CHARLES A	943-5432
16031	KOCOUREK, RUDOLPH	943-1997
16037	TRERISE, B L	943-4337
16043	GARABEDIAN, ROBERT	943-8234
16057	ROBINSON JR, C N	WI 31320

1961 GROVEDALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

1961 RICHVALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

NO LISTINGS IN RANGE

1944 GROVEDALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

1944 RICHVALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

1941 GROVEDALE DRIVE

SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

1941
SOURCE: STREET ADDRESS DIRECTORY

RICHVALE DRIVE

STREET NOT LISTED

1936
SOURCE: STREET ADDRESS DIRECTORY

GROVEDALE DRIVE

STREET NOT LISTED

1936 RICHVALE DRIVE
SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

--- END REPORT ---

Appendix H - Geoenvironmental Reports

Leighton

Important Information about This

Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental

professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change*, sometimes suddenly, due to any number of events, not the least of which include occurrences at adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care. Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in the Geoprofessional Business Association exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your GBA-member geoenvironmental professional for more information.

GEOPROFESSIONAL BUSINESS ASSOCIATION

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

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APPENDIX G: HYDROLOGY AND LID REPORT

LAND DEVELOPMENT DIVISION
HYDROLOGY UNIT

TO:	United Civil, Inc.	Date: 09/24/2019
	1180 Durfee Ave, Suite 220	
	South El Monte, CA 91733	
ATTN:	John Luong	

REVIEW OF HYDROLOGY STUDY

TR NO. **82457**

DATE OF REPORT **08/08/2019**
PLAN CHECK NO. **3**
PLAN CASE NO. **ESTU2019000164**

We have reviewed your Hydrology Study.

[X] The Hydrology Study has been approved.

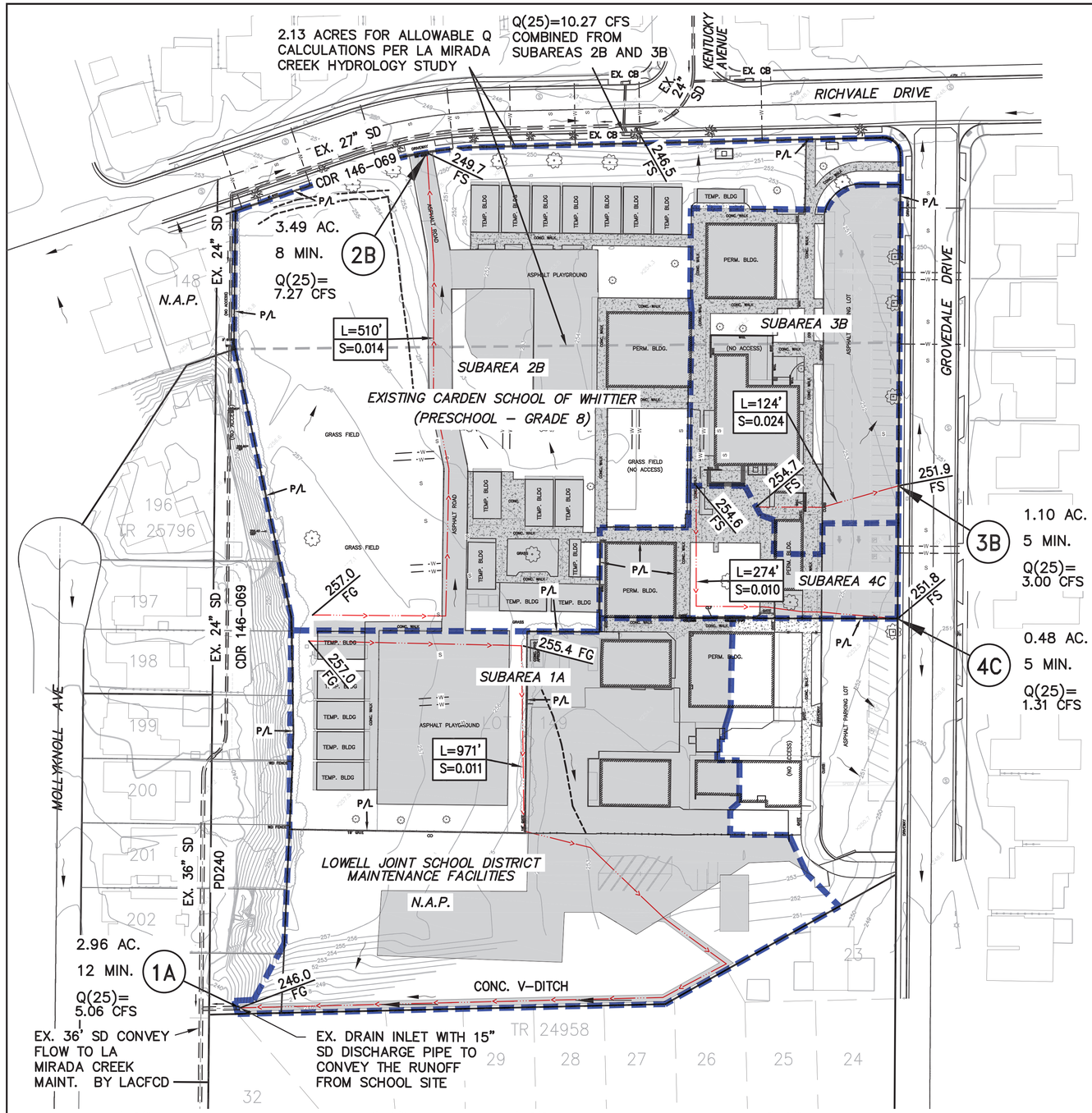
AYM

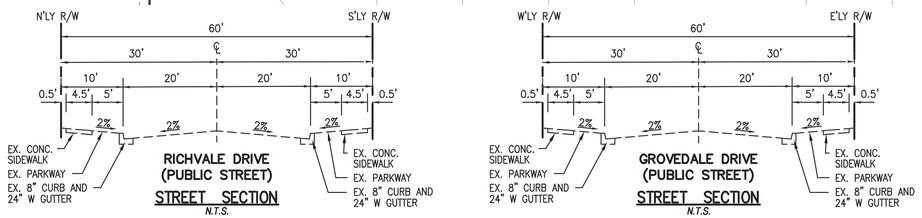
REVIEWED BY M.D. Esfandi

DAVID ESFANDI (626) 458-7130

REGISTERED PROFESSIONAL ENGINEER
MANOUCHEHR DAVID ESFANDI
No. C 043912
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

APPROVED BY: Gracely C. Lasso



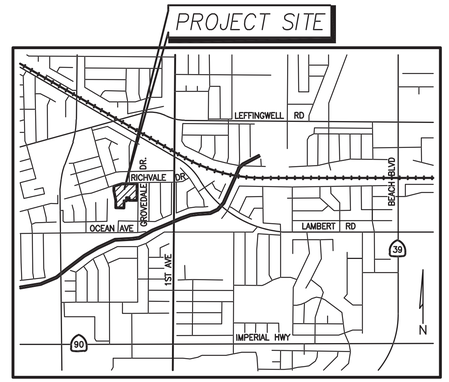


LEGENDS:

- DRAINAGE BOUNDARY
- FLOW DIRECTION
- STORM DRAIN FLOW DIRECTION
- DRAINAGE FLOW PATH
- FS / FL / INV — FINISHED SURFACE / FLOW LINE / INVERT
- L — LONGEST LENGTH OF FLOW PATH (Feet)
- S — SLOPE OF LONGEST FLOW PATH
- Tc — TIME OF CONCENTRATION (Minutes)
- 1.0 AC. / 6 MIN. / Q(25)= 7.27 CFS / 1A — SUBAREA ACREAGE (AC.) / TIME OF CONCENTRATION (MIN.) / DESIGN PEAK 25-YR. FLOW (CFS) / SUBAREA & CONCENTRATION POINT
- IMPERVIOUS AREA WITHIN DRAINAGE AREA

NOTES:

1) COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS
2) SITE NOT WITHIN COUNTY ADOPTED FLOODWAY.
3) SITE NOT WITHIN FEMA ZONE "A".
4) SEE SHEET 3 FOR IMPERVIOUSNESS CALCULATIONS.



VICINITY MAP
NOT TO SCALE

HYDROLOGIC CHARACTERISTICS SUMMARY

DESIGN RAINFALL FREQUENCY:	25-YEAR URBAN FLOOD STORM 50-YEAR FOR SUMP CONDITION
50-YEAR 24-HOUR ISOHYET:	5.8 INCHES
85TH PERCENTILE RAINFALL DEPTH:	0.95 INCHES
SOIL NUMBER:	009 (MONTEZUMA CLAY ADOBE) FOR ONSITE AREA
DPA:	7
EXISTING LAND USE:	SCHOOL-PRESCHOOL TO 8TH GRADE (55% IMPERVIOUS)
PROPOSED LAND USE:	SINGLE FAMILY DWELLING HOMES (56% IMPERVIOUS)
SOIL PERCOLATION RATE:	0.02 IN/HR

HYDROLOGIC SUMMARY TABLE

SUB-AREA	AREA (Ac.)	IMP. (%)	Tc (Min.)	Q(25) (cfs)	COMMENTS
1A	2.96	61	12	5.06	RUNOFFS FROM SCHOOL BUILDINGS AND LOWELL JOINT SCHOOL DISTRICT PROPERTY SURFACE FLOW SOUTHEASTERLY TO EXISTING CONCRETE GUTTER, AND THEN WESTERLY ALONG THE SOUTH P/L TO AN EXISTING 15" PIPE INLET STRUCTURE.
2B	3.49	36	8	7.27	RUNOFFS FROM SCHOOL BUILDINGS AND OPEN FIELDS SHEET FLOW TO RICHVALE DRIVE, AND INTO AN EXISTING SUMP CATCH BASIN.
3B	1.10	89	5	3.00	RUNOFFS FROM THE SCHOOL BUILDINGS, OPEN FIELDS AND PORTION OF PARKING LOT SHEET FLOW TO GROVEDALE DRIVE. THE RUNOFF THEN FLOWS WESTERLY ONTO RICHVALE DRIVE AND INTO AN EXISTING SUMP CATCH BASIN.
4C	0.48	81	5	1.31	RUNOFFS FROM THE SCHOOL BUILDING, PAVED WALKWAY, OPEN LANDSCAPE AREA, AND PORTION OF PARKING LOT FLOW EASTERLY TO GROVEDALE DRIVE. THE RUNOFF THEN FLOWS SOUTHERLY ALONG GROVEDALE DRIVE.
TOTAL	8.03	55	–	16.64	MAJORITY OF THE EXISTING DRAINAGE AREAS (SUBAREAS 2B AND 3B) SHEET FLOW TO RICHVALE DRIVE AND INTO THE EXISTING SUMP CATCH BASIN. THIS IS WITHIN THE TRIBUTARY AREA 148T, WHICH HAS AN ALLOWABLE Q OF 2 CFS PER ACRE, BUT MODIFIED TO 1.33 CFS PER ACRE DUE TO EXISTING STORM DRAIN CAPACITY LIMITATION. RUNOFF FROM SUBAREA 1A DISCHARGES INTO AN EXISTING 15" PIPE INLET AT THE SOUTHWEST CORNER OF LOWELL JOINT SCHOOL DISTRICT PROPERTY THAT CONNECTS TO THE EXISTING 36" RCP STORM DRAIN (PD240). RUNOFF FROM SUBAREA 4C DISCHARGES ONTO GROVEDALE DRIVE. BOTH SUBAREAS 1A AND 4C ARE TRIBUTARY TO 150T, WHICH HAS AN ALLOWABLE Q OF 1.837 CFS PER ACRE.

HYDROLOGY STUDY APPROVED
CHECKED BY: _____ RCE NO. 43912 DATE 9/24/2019
APPROVED BY: Timothy C. Fossee DATE 9/24/2019
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

SCALE: 1"=50'
0 50 100

REGISTERED PROFESSIONAL ENGINEER JOHN TUAN LUONG NO.65214 EXP. 09-30-19 CIVIL STATE OF CALIFORNIA

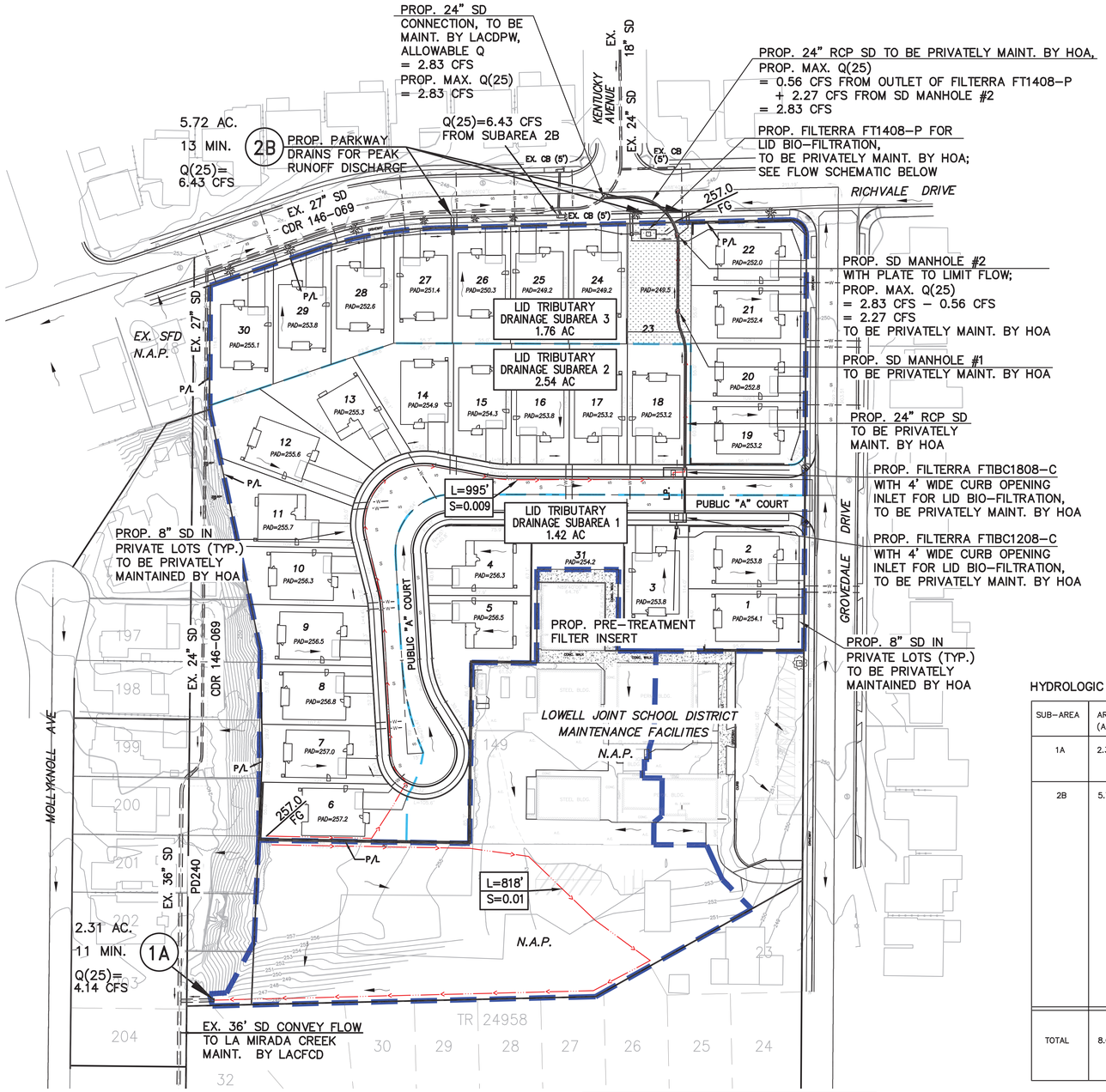
ESTU2019000164
EXISTING PRE-DEVELOPMENT CONDITION HYDROLOGY MAP FOR VESTING TENTATIVE TRACT NO. 82457
11537 GROVEDALE, WHITTIER, CA 90604

PREPARED BY:
UNITED CIVIL, INC.
30141 AGOURA ROAD, SUITE 215
AGOURA HILLS, CA 91301
PH: (818) 707-8648
FAX: (818) 707-8649

DESIGNED BY: J.L. | REVIEWED BY: J.L.
DATE: 07/30/19 | DATE: 07/30/19

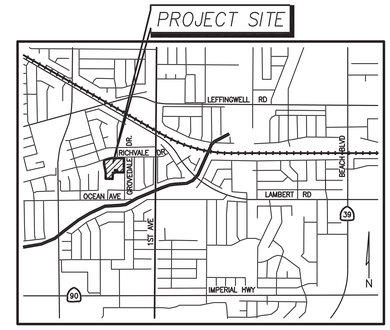
PREPARED FOR:
CENTURY COMMUNITIES
1343 E. GLADSTONE ST, SUITE 300
GLENDORA, CA 91740
PH: (909) 667-0283

CONTACT PERSON: BRENT JOHNSON



LEGENDS:

- DRAINAGE BOUNDARY
- LID TRIBUTARY DRAINAGE SUBAREA BOUNDARY
- SURFACE FLOW DIRECTION
- STORM DRAIN FLOW DIRECTION
- DRAINAGE FLOW PATH
- FS / FL / INV — FINISHED SURFACE / FLOW LINE / INVERT
- L — LONGEST LENGTH OF FLOW PATH (Feet)
- S — SLOPE OF LONGEST FLOW PATH
- Tc — TIME OF CONCENTRATION (Minutes)
- 1.0 AC. / 6 MIN. / Q(25)= 7.27 CFS — SUBAREA ACREAGE (AC.) / TIME OF CONCENTRATION (MIN.) / DESIGN PEAK 25-YR. FLOW (CFS)
- 1A — SUBAREA & CONCENTRATION POINT
- HOA MAINTAINED LANDSCAPE AREA
- IMPERVIOUS AREA WITHIN DRAINAGE AREA



VICINITY MAP
NOT TO SCALE

HYDROLOGIC CHARACTERISTICS SUMMARY

DESIGN RAINFALL FREQUENCY:	25-YEAR URBAN FLOOD STORM 50-YEAR FOR INCREASE IN RUNOFF ANALYSIS
50-YEAR 24-HOUR ISOHYET:	5.8 INCHES
85TH PERCENTILE RAINFALL DEPTH:	0.95 INCHES
SOIL NUMBER:	009 (MONTEZUMA CLAY ADOBE)
DPA:	7
EXISTING LAND USE:	SCHOOL-PRESCHOOL TO 8TH GRADE (55% IMPERVIOUS)
PROPOSED LAND USE:	SINGLE FAMILY DWELLING HOMES (56% IMPERVIOUS)
SOIL PERCOLATION RATE:	0.02 IN/HR

NOTES:

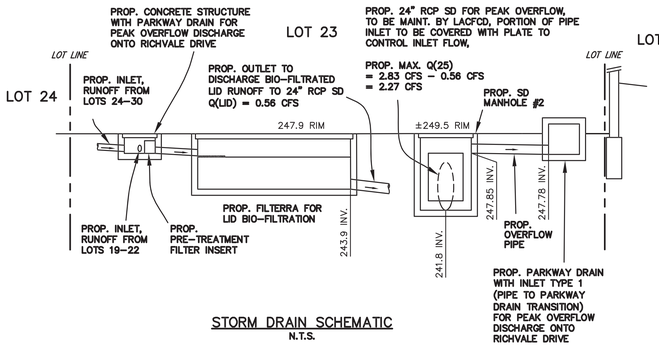
1) ***COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS***
2) ***SITE NOT WITHIN COUNTY ADOPTED FLOODWAY.***
3) ***SITE NOT WITHIN FEMA ZONE "A".***
4) ***SEE SHEET 3 FOR IMPERVIOUSNESS CALCULATIONS.***
5) ***SEE SHEET 3 FOR FILTERRA DETAILS.***

HYDROLOGIC & LID SUMMARY TABLE USING Tc CALCULATOR PROPGRAM (LACPW)

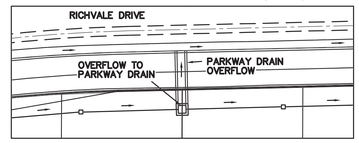
SUB-AREA	AREA (Ac.)	IMP. (%)	Tc (Min.)	Q(25) (cfs)	Q(LID) (cfs)	V(LID) (cf)	DESCRIPTIONS	PROVIDED BMP
1A	2.31	62	11	4.14	–	–	RUNOFFS FROM SCHOOL BUILDINGS AND LOWELL JOINT SCHOOL DISTRICT PROPERTY SURFACE FLOW SOUTHEASTERLY TO EXISTING CONCRETE GUTTER, AND THEN WESTERLY ALONG THE SOUTH P/L TO AN EXISTING 15" PIPE INLET STRUCTURE.	FLOW-BASED BIO-FILTRATION: FILTERRA FLOW-BASED PROPRIETARY BIO-FILTRATION SYSTEM. UNITS ARE SIZED TO ADEQUATELY TREAT THE CORRESPONDING LID TRIBUTARY DRAINAGE SUBAREAS. SEE APPENDIX D FOR SIZING CALCULATIONS AND SYSTEM DETAILS.
2B	5.72	54	13	9.26	0.56	10,408 x1.5 =15,612	DRAINAGE AREA FOR THE PROPOSED PROJECT SITE. RUNOFF FROM RESIDENTIAL LOTS FRONTING "A" COURT WILL DISCHARGE ONTO "A" COURT AND CONVEYED BY PROPOSED CURB AND GUTTER. ALL RUNOFFS ON "A" COURT WILL BE INTERCEPTED BY TWO PROPOSED CURB OPENING FILTERRA UNITS (FTIBC1208-C AND FTIBC1808-C). THE RUNOFFS FROM LOTS AND PROPOSED STREET ARE THEN CONVEYED TO PROPOSED STORM DRAIN MANHOLE #2 IN LOT 23. ANOTHER FILTERRA UNIT (FT1408-P) IS IN LOT 23 TO RECEIVE AND BIO-FILTRATE THE RUNOFF FROM LOTS 19-22 AND 24-30. THE TREATED RUNOFF OF 0.56 CFS IS THEN OUTLET TO THE PROPOSED 24" RCP DOWNSTREAM OF STORM DRAIN MANHOLE #2. THE FILTERRA UNITS ARE FLOW BASED LID BIO-FILTRATION BMP THAT ARE SIZED TO PROVIDE ADEQUATE TREATMENT CAPACITY TO BIO-FILTRATE THE Q(LID) OF THE TRIBUTARY DRAINAGE SUBAREA. THEREFORE, NO DETENTION IS NEEDED TO DETAIN THE 15,612 CF OF 1.5*SWQDv. RUNOFF GREATER THAN Q(LID) WILL OVERFLOW INTO THE PROPOSED 24" RCP SD AT THE PROPOSED STORM DRAIN MANHOLE #2 IN LOT 23. TOTAL OUTFLOW TO THIS 24" RCP SD WILL BE LIMITED TO THE Q(ALLOWABLE) OF 2.83 CFS. THE REMAINING 9.26 CFS - 2.83 CFS = 6.43 CFS WILL OVERFLOW ONTO CURB AND GUTTER OF RICHVALE DRIVE VIA THREE PROPOSED PARKWAY DRAINS, ONE OF WHICH IS LOCATED BETWEEN LOTS 26 AND 27, AND TWO LOCATED AT LOT 23.	
TOTAL	8.03	56	–	13.40	0.56	15,612	THERE IS NO INCREASE IN PEAK RUNOFF. FOR SUBAREA 1A, Q(25)=4.14 CFS < EXISTING Q(25)=5.06 CFS. FOR SUBAREA 2B, Q(25)=9.26 CFS < EXISTING Q(25)=10.27 CFS (SUM OF Q(25) FROM SUBAREAS 2B AND 3B IN THE EXISTING PRE-DEVELOPMENT CONDITION, WHICH ARE TRIBUTARY TO RICHVALE DRIVE).	

LID BMP DESIGN PARAMETERS

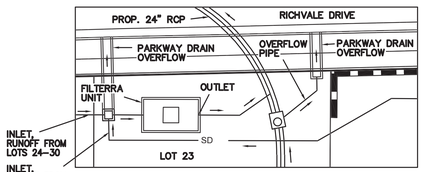
	FILTERRA FTIBC1208-C	FILTERRA FTIBC1808-C	FILTERRA FT1408-P
TRIBUTARY AREA	LID TRIBUTARY DRAINAGE SUBAREA 1 61,880 SF 1.42 AC	LID TRIBUTARY DRAINAGE SUBAREA 2 110,853 SF 2.54 AC	LID TRIBUTARY DRAINAGE SUBAREA 3 76,458 SF 1.76 AC
RUNOFF COEFFICIENT	0.532	0.532	0.532
INFILTRATION RATE	0.02 IN/HR	0.02 IN/HR	0.02 IN/HR
SWQDv	2,606 CF	4,669 CF	3,220 CF



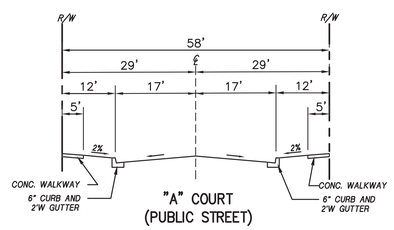
STORM DRAIN SCHEMATIC
N.T.S.



PARKWAY DRAIN OVERFLOW SCHEMATIC BETWEEN LOTS 26 AND 27
N.T.S.



FILTERRA FT1408-P FLOW SCHEMATIC
N.T.S.



"A" COURT
(PUBLIC STREET)
STREET SECTION
N.T.S.

HYDROLOGY STUDY APPROVED
CHECKED BY: MD RCE NO. 43912 DATE 9/24/2019
APPROVED BY: Amanda C. Lane DATE 9/24/2019
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

SCALE: 1"=50'
0 50 100

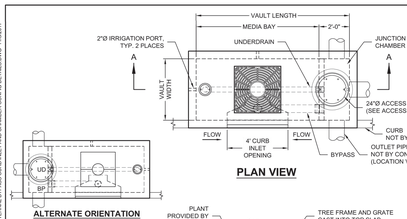
REGISTERED PROFESSIONAL ENGINEER JOHN TUAN LUONG NO.65214 EXP. 09-30-19 CIVIL STATE OF CALIFORNIA

ESTU2019000164
PROPOSED POST-DEVELOPMENT CONDITION HYDROLOGY MAP FOR VESTING TENTATIVE TRACT NO. 82457
11537 GROVEDALE, WHITTIER, CA 90604

PREPARED BY:
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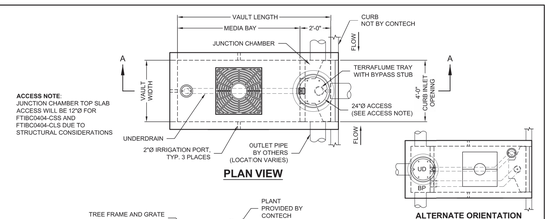
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CONTACT PERSON: BRENT JOHNSON

DESIGNED BY: J.L.	REVIEWED BY: J.L.
DATE: 08/12/19	DATE: 08/12/19



PLAN VIEW

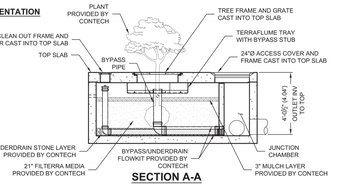
ALTERNATE ORIENTATION



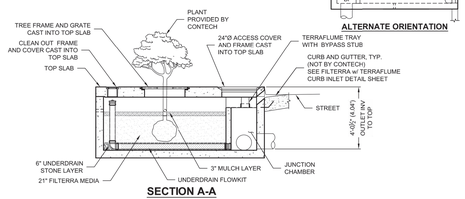
ACCESS NOTE:
JUNCTION CHAMBER TOP SLAB ACCESS WILL BE 12"Ø FOR FTIBC0404-CSS AND FTIBC0404-CLS DUE TO STRUCTURAL CONSIDERATIONS

PLAN VIEW

ALTERNATE ORIENTATION



SECTION A-A



SECTION A-A

FTIBC-C LONG SIDE CURB INLET

DESIGNATION (LONG SIDE)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (L x W)	MAX. BYPASS PIPE DIA	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA, (PERF.)	TREE GRATE QTY. & SIZE
FTIBC0404LS-C	N/A CA	4 x 4	6 x 4	6" SDR 35	1.42	4" SDR 35	(1) 3' x 3'
FTIBC04504-C	CA ONLY	4.5 x 4	6.5 x 4	8"SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0585045-C	MID-ATL ONLY	5.83 x 4.5	7.83 x 4.5	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0604-C	N/A MID-ATL	6 x 4	8 x 4	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0606LS-C	ALL	6 x 6	8 x 6	10" SDR 35	2.37	4" SDR 35	(1) 3' x 3'
FTIBC0806-C	ALL	8 x 6	10 x 6	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC1006-C	ALL	10 x 6	12 x 6	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC1107-C	ALL	11 x 7	13 x 7	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC1208-C*	CALL CONTECH	12 x 8	14 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(2) 4' x 4'
FTIBC1408-C*	CALL CONTECH	14 x 8	16 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(2) 4' x 4'
FTIBC1608-C*	CALL CONTECH	16 x 8	18 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(2) 4' x 4'
FTIBC1808-C*	CALL CONTECH	18 x 8	20 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(3) 4' x 4'
FTIBC2008-C*	CALL CONTECH	20 x 8	22 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(3) 4' x 4'
FTIBC2208-C*	CALL CONTECH	22 x 8	24 x 8	(2) 10" SDR 35	4.74	6" SDR 35	(3) 4' x 4'

N/A = NOT AVAILABLE
*REQUIRES (2) TERRAFLUMES

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE

FTIBC-C SHORT SIDE CURB INLET

DESIGNATION (SHORT SIDE)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	MAX. BYPASS PIPE DIA	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA, (PERF.)	TREE GRATE QTY. & SIZE
FTIBC0404SS-C	N/A CA	4 x 4	4 x 6	6" SDR 35	1.42	4" SDR 35	(1) 3' x 3'
FTIBC04045-C	CA ONLY	4 x 4.5	4 x 6.5	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0406-C	N/A MID-ATL	4 x 6	4 x 8	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC04505B-C	MID-ATL	4.5 x 5.83	4.5 x 7.83	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0606SS-C	ALL	6 x 6	6 x 8	10" SDR 35	2.37	4" SDR 35	(1) 3' x 3'
FTIBC0606-C	ALL	6 x 8	6 x 10	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC0610-C	ALL	6 x 10	6 x 12	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC0711-C	ALL	7 x 11	7 x 13	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC0812-C*	CALL CONTECH	8 x 12	8 x 14	(2) 10" SDR 35	4.74	6" SDR 35	(2) 4' x 4'

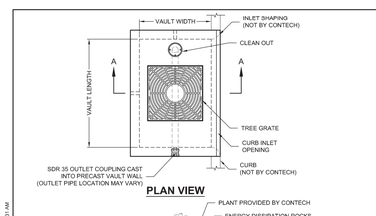
N/A = NOT AVAILABLE
*REQUIRES (2) TERRAFLUMES

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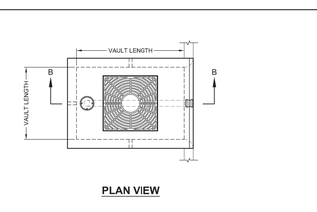
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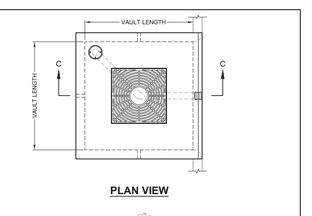
FILTERRA INTERNAL BYPASS CURB WITH CHAMBER (FTIBC-C) CONFIGURATION DETAIL



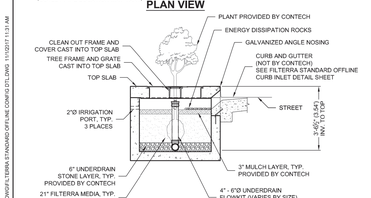
PLAN VIEW



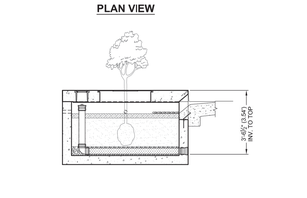
PLAN VIEW



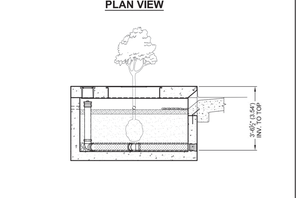
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

FT LONG SIDE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (L x W)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0604	N/A CA	6 x 4	6 x 4	4" SDR 35	(1) 3' x 3'
FT06504	CA ONLY	6.5 x 4	6.5 x 4	4" SDR 35	(1) 3' x 3'
FT078045	MID-ATL ONLY	7.83 x 4.5	7.83 x 4.5	4" SDR 35	(1) 3' x 3'
FT0804	N/A MID-ATL	8 x 4	8 x 4	4" SDR 35	(1) 3' x 3'
FT0806	ALL	8 x 6	8 x 6	4" SDR 35	(1) 4' x 4'
FT1006	ALL	10 x 6	10 x 6	6" SDR 35	(1) 4' x 4'
FT1206	ALL	12 x 6	12 x 6	6" SDR 35	(2) 4' x 4'
FT1307	ALL	13 x 7	13 x 7	6" SDR 35	(2) 4' x 4'
FT1408	CALL CONTECH	14 x 8	14 x 8	6" SDR 35	(2) 4' x 4'
FT1608	CALL CONTECH	16 x 8	16 x 8	6" SDR 35	(2) 4' x 4'
FT1808	CALL CONTECH	18 x 8	18 x 8	6" SDR 35	(2) 4' x 4'
FT2008	CALL CONTECH	20 x 8	20 x 8	6" SDR 35	(3) 4' x 4'
FT2208	CALL CONTECH	22 x 8	22 x 8	6" SDR 35	(3) 4' x 4'

N/A = NOT AVAILABLE

FT SHORT SIDE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0406	N/A CA	4 x 6	4 x 6	4" SDR 35	(1) 3' x 3'
FT04065	CA ONLY	4 x6.5	4 x 6.5	4" SDR 35	(1) 3' x 3'
FT0408	N/A MID-ATL	4 x 8	4 x 8	4" SDR 35	(1) 3' x 3'
FT045078	MID-ATL ONLY	4.5 x 7.83	4.5 x 7.83	4" SDR 35	(1) 3' x 3'
FT0608	ALL	6 x 8	6 x 8	4" SDR 35	(1) 4' x 4'
FT0610	ALL	6 x 10	6 x 10	6" SDR 35	(1) 4' x 4'
FT0612	ALL	6 x 12	6 x 12	6" SDR 35	(2) 4' x 4'
FT0713	ALL	7 x 13	7 x 13	6" SDR 35	(2) 4' x 4'

N/A = NOT AVAILABLE

FT SQUARE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0404	ALL	4 x 4	4 x 4	4" SDR 35	(1) 3' x 3'
FT0606	ALL	6 x 6	6 x 6	4" SDR 35	(1) 3' x 3'

N/A = NOT AVAILABLE

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION.

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800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA OFFLINE (FT) CONFIGURATION DETAIL

WEIGHTED PERCENT IMPERVIOUSNESS CALCULATION FOR DRAINAGE AREA A

(EXISTING PRE-DEVELOPMENT CONDITION)

Hydrology Subarea Number	Total Area (Acres)	Sub-Area	Contributing Area (Acres)	Weighting Factor	Percent Impervious	Weighted % Imperviousness
A	8.0	1A	2.96	0.37	0.61	0.23
		2B	3.49	0.43	0.36	0.16
		3B	1.10	0.14	0.89	0.12
		4C	0.48	0.06	0.81	0.05
TOTAL=	8.0		8.03			0.55

WEIGHTED PERCENT IMPERVIOUSNESS CALCULATION FOR DRAINAGE AREA A

(PROPOSED POST-DEVELOPMENT CONDITION)

Hydrology Subarea Number	Total Area (Acres)	Sub-Area	Contributing Area (Acres)	Weighting Factor	Percent Impervious	Weighted % Imperviousness
A	8.0	1A	2.31	0.29	0.62	0.18
		2B	5.72	0.71	0.54	0.38
TOTAL=	8.0		8.03			0.56

HYDROLOGY STUDY APPROVED
CHECKED BY: RCE NO. 43912 DATE 9/24/2019
APPROVED BY: DATE 9/24/2019
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

ESTU2019000164
PROPOSED POST-DEVELOPMENT CONDITION HYDROLOGY MAP FOR VESTING TENTATIVE TRACT NO. 82457
11537 GROVEDALE, WHITTIER, CA 90604

REGISTERED PROFESSIONAL ENGINEER JOHN TUAN LUONG NO.65214 EXP. 09-30-19 CIVIL STATE OF CALIFORNIA

PREPARED BY:
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DATE: 07/30/19 | DATE: 07/30/19

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CONTACT PERSON: BRENT JOHNSON

HYDROLOGY & LID REPORT
ESTU2019000164

FOR

VESTING TENTATIVE TRACT MAP 82457

11537 GROVEDALE DRIVE
WHITTIER, CA 90604
(Unincorporated Area of LA County)

Prepared for:

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August 8th, 2019

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HYDROLOGY STUDY APPROVED

CHECKED BY: MD. Esfandiari RCE NO. 43912 DATE 9/24/2019

APPROVED BY: Gracely C. Lasso DATE 9/24/2019

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Prepared under the direction of:

John T. Luong 8/8/2019

John Luong Date

R.C.E. No. 65214

REGISTERED PROFESSIONAL ENGINEER
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NO.65214
EXP. 09-30-19
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Appendix E: Hydrology Maps & Storm Drain Plan

Existing Pre-Development Condition **Page E-1**

Proposed Post-Development Condition **Page E-2**

INTRODUCTION

A. PROJECT LOCATION AND DESCRIPTION

The proposed project, 31 lots residential development with 29 Single Family Units, is located at 11537 Grovedale Drive, in the unincorporated area of Los Angeles County, California, east of City of Whittier, as shown on the enclosed Vicinity Map on Page 3. It is located in the Residential (R1) zone, and bounded by existing residential lots to the west and south, by Grovedale Drive to the east, by Richvale Drive to the north. It is located on existing Carden School of Whittier, which is a private school that is still active.

The 5.8 acres site is the northerly half of the existing 9.45 acre parcel designated for school per Tract No. 24958. The existing parcel is rectangular shaped. The current facilities is divided into Carden School on the north and Lowell Joint School District Maintenance Facility on the south. The school site consists of existing modular buildings, office building, grass field, paved parking lot and driveway, playground and few planting area.

The proposed project is for subdivision of 31 lots in the R1-6000 zone, minimum 6000 square foot lot, and 1 public street with cul-de-sac. Existing school buildings within project site will be demolished. There are lots fronting existing public street as shown on the enclosed Tentative Map on Page 4. There is a proposed open space Lot 23 for proposed stormwater appurtenance, a proposed Lot A for easement to existing school building structure, and a proposed open space Lot 31.

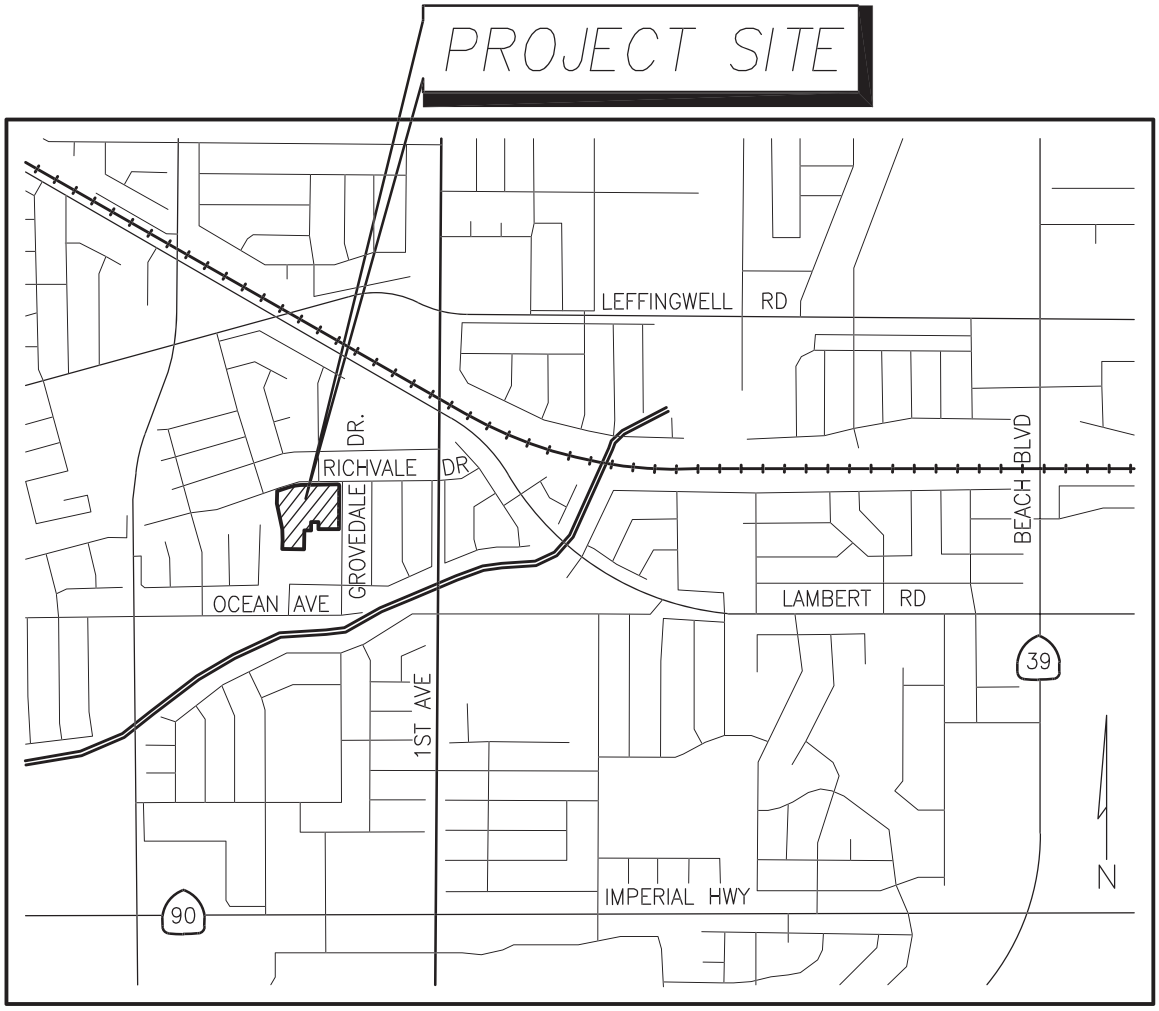
The project is categorized as a Designated Project according to County of Los Angeles Department of Public Works Low Impact Development (LID) Standards Manual, for development greater than 1 acre and is required to retain the entire Stormwater Quality Design Volume (SWQDv) from the entire project site, or to bio-filtrate 1.5 times the SWQDv before discharging offsite.

B. PURPOSE OF STUDY

The main purposes of this drainage study are:

1) to determine the design peak 25-year frequencies Urban Flood Storm runoffs from project site in the Existing Pre-Development condition and in the Proposed Post-Development condition;

2) to determine the peak developed runoff from the proposed project development and to size and locate the appropriate onsite storm water storage system to mitigate the storm water runoff in compliance with the LID ordinance.



T.G. 707–J6

VICINITY MAP

NOT TO SCALE