Draft Initial Study and Mitigated Negative Declaration

Walnut Grove Residential Project

Prepared for

City of West Covina
Planning Division
1444 West Garvey Avenue South, 2nd Floor, Room 208
West Covina, California 91790
Contact: Jo-Anne Burns, Planning Manager
JBurns@westcovina.org

Prepared by

Psomas
5 Hutton Centre Drive, Suite 300
Santa Ana, California 92707
Contact: Alia Hokuki
(714) 751-7373

November 19, 2020

TABLE OF CONTENTS

TABLES

EXHIBITS

APPENDICES

ACRONYM LIST

AAM	Annual Arithmetic Mean
AB	Assembly Bill
ac	acre
ACM	asbestos-containing materials
af	Acre-feet
AFY	acre-feet per year
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
bgs	below the existing ground surface
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CalARPP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Prevention
CALGreen Code	California Green Building Standards Code
CalOSHA	State Occupational Safety and Health Regulations
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
City	City of West Covina
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
Cortese List	Hazardous Waste and Substances Site List
CPUC	California Public Utilities Commission
CWA	Clean Water Act
cy	cubic yards
dBA	A-weighted decibel scale
DIFs	Development Impact Fees
DOC	Department of Conservation
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DTSC-SLs	Department of Toxic Substance Control Screening Levels
du	dwelling units
EAP	Energy Action Plan
EIR	Environmental Impact Report
EMFAC	EMissions FACtor
EO	Executive Order
ESA	Environmental Site Assessment

FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
ft	feet
FTA	Federal Transportation Administration
GHG	greenhouse gas
GP	General Plan
gpcd	gallons per capita per day
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
HOA	Homeowners Association
HVAC	heating, ventilation, and air conditioning
HWCA	California Hazardous Waste Control Act
I	Interstate
in/sec	inches per second
IRPs	integrated resources plans
IS/MND	Initial Study/Mitigated Negative Declaration
ISSD	Investigative & Support Services Division
ITE	Institute of Transportation Engineers
km	kilometer
LACSD	Los Angeles County Sanitation District
LBP	lead-based paint
L_{eq}	energy average
L_{eq} dBA	Equivalent Continuous Noise Level in A-weighted decibels
L_{max}	maximum noise level
L_{min}	minimum noise level
LOS	Level of Service
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
MEI	maximally exposed individual
mg	Million Gallons
mgd	million gallons of wastewater per day
mg/m^3	milligrams per cubic meter
mph	miles per hour
MPO	metropolitan planning organization
MRF	Materials Recovery Facility
MRZs	Mineral Resources Zones
MRZ-1	Mineral Resource Zone-1 (an area with no significant mineral deposits)
MRZ-2	Mineral Resource Zone-2 (an area with significant mineral deposits)
MRZ-3	Mineral Resource Zone-3 (an area containing known mineral resources of undetermined significance)
MTdba ldn	metric tons of carbon dioxide equivalent
$MTCO_2e$	metric tons of CO_2 equivalent
$MTCO_2e/yr$	metric tons of CO_2 equivalent per year
NAAQS	National Ambient Air Quality Standards
N-C	Neighborhood Commercial
NCCP	Natural Community Conservation Plan
NHMP	Natural Hazard Mitigation Plan

NPDES	National Pollutant Discharge Elimination System
N_2O	nitrous oxide
NO	nitric oxide
NO_2	nitrogen dioxide
NOI	Notice of Intent
NOx	nitrogen oxide
O_3	ozone
OCPs	organochlorine pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
OSHA	Federal Occupational Safety and Health Regulations
PFC	perfluorocarbons
PlanWC	City of West Covina General Plan
PM2.5	fine particulate matter with a diameter of 2.5 microns or less
PM10	respirable particulate matter with a diameter of 10 microns or less
ppm	parts per million
ppv	peak particle velocity
PRD	Permit Registration Document
pvc	polyvinyl chloride
R-1	Residential Single-Family
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RHNA	Regional Housing Needs Assessment
RPS	Renewable Portfolio Standard
RSLs	Residential Regional Screening Levels
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
S-C	Service Commercial
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	sustainable communities strategy
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SJCWRP	San Jose Creek Water Reclamation Plant
SO_2	sulfur dioxide
SoCAB	South Coast Air Basin
S-P	Specific Plan
SR	State Route
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminates

TPA	Transit Priority Area
µg/m^3	micrograms per cubic meter
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WCFD	West Covina Fire Department
WCPD	West Covina Police Department
WCUSD	West Covina Unified School District
WNRP	Whittier Narrows Reclamation Plant

1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

The purpose of this Initial Study (IS) is to (1) describe the proposed Walnut Grove Residential Project (hereinafter referred to as the "Project"), which would be constructed in the City of West Covina and (2) provide an evaluation of potential environmental impacts associated with the Project's construction and operation. The Project involves development of a 158-unit attached and detached residential development on an approximately 9.14-acre site. This IS has been prepared pursuant to the California Environmental Quality Act (CEQA), as amended (Section 21000 et. seq. of the *Public Resources Code*) and in accordance with the State CEQA Guidelines (Section 15000 et. seq. of the *California Code of Regulations*).

Pursuant to Section 15367 of the State CEQA Guidelines, the City of West Covina (hereinafter referred to as the "City") is the lead agency for the Project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment. The City of West Covina, as the lead agency, has the authority for Project approval and certification of the accompanying environmental documentation.

1.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

In accordance with CEQA and the State CEQA Guidelines, an Initial Study (IS) has been prepared for the proposed Project and its associated discretionary approvals. The IS indicates that the potentially significant impacts of the Project can be reduced to less than significant levels with implementation of mitigation measures, and therefore, the Project requires preparation of an Initial Study/Mitigated Negative Declaration (IS/MND).

This IS/MND serves as the environmental document that presents the analysis of Project impacts on each of the environmental issue areas in the CEQA Environmental Checklist provided in Section 4.0. This document will serve to inform City decision makers, representatives of affected trustee and responsible agencies, and other interested parties of the potential environmental effects that may occur with approval and implementation of the proposed Project.

1.3 PROJECT SUMMARY

1.3.1 LOCATION

The approximate 9.14-acre Project site is in the City of West Covina, in Los Angeles County, California. The site is located at 1651 East Rowland Avenue, north of East Rowland Avenue and west of North Azusa Avenue. The site is approximately 0.47 mile north of Interstate (I) 10 Freeway and located within the northern portion of the City. Local and regional access to the site is provided by Rowland Avenue and I-10, respectively. North Eileen Street ends in a cul-de-sac within the site along the northwestern boundary of the Project. See Exhibit 1-1, Regional Location and Local Vicinity.

D:\Projects\LewisOp\3LEW001200\MXD\MND\ex_LV_RL_20200722.mxd

Regional Location and Local Vicinity

Exhibit 1-1

Walnut Grove Residential Project

N
W E
S

1,000 500 0 1,000

Feet

PSOMAS

(Rev: 7-23-2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_LV_RL.pdf

The site is currently developed with the former Tri-Community Adult School-Pioneer Center, which moved to a new location in Covina, California. All existing structures have been closed and will be demolished to accommodate the proposed development.

1.3.2 PROJECT PROPONENT

Glen Crosby
Lewis Management Corporation
1156 North Mountain Avenue,
Upland, CA 91786
(909) 579-5193

1.3.3 EXISTING GENERAL PLAN AND ZONING

Land Use Designation: Civic: Schools (S)

Zoning Classification: RS-1 Residential Single Family

1.3.4 EXISTING SETTING

Project Site

The Project site is currently developed with a school campus (former Pioneer School), which is not in use and slated for demolition. The existing use is comprised of nine administrate buildings and classrooms in the southern portion; surface parking lots in the southeastern and in northeastern portions; three storage sheds, a paved play area, and an athletic field in the western and northwestern portions of the Project site. Access to the site is primarily from East Rowland Avenue, and existing North Eileen Street terminates in a cul-de-sac within the property along the northern boundary of the site.

Surrounding Land Uses

The Project site is surrounded by single family residential uses to the north and west. Commercial, retail, restaurant, and office uses are located to the east, and immediately to the north is a shopping center. To the south and across Rowland Avenue, is a large commercial retail shopping center, and beyond that is single-family residential neighborhood.

1.3.5 PROPOSED DEVELOPMENT

The proposed Walnut Grove Residential Project would involve construction of a 158-unit attached and detached residential development on an approximately 9.14-acre site with a density of 16.7 dwelling units per acre (du/ac). The existing school uses, including administrative buildings and surface parking lot, would be demolished to accommodate the proposed Project.

The proposed Project would consist of two different types of residences, including: 66 units of detached single-family in a cluster configuration and 92 attached multi-family units. The proposed detached single-family units would have a minimum of three floor plan types, with

units ranging in size from 1,471 to 1,798 square feet (sf). The proposed townhomes would have a minimum of three floor plans, ranging in size from 1,310 to 1,721 sf. Furthermore, the Project would include 2 covered garage parking spaces per dwelling unit (for a total of 316 indoor garage spaces), 99 uncovered guest surface parking spaces throughout the Project site, and approximately 0.27 acre of common open space. Additional details on the Project are provided in Section 3.0 of this IS/MND.

1.4 SUMMARY OF FINDINGS

Based on the environmental checklist form prepared for the Project and supporting environmental analysis (Section 4.0), the proposed Project would have no impact or less than significant impacts in the following environmental areas: aesthetics, agriculture and forest resources, air quality, energy, greenhouse gas (GHG) emissions, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire. The Project has the potential to have significant impacts on the following topics unless the recommended mitigation measures described herein are incorporated into the Project: biological resources, cultural resources, geology and soils, hydrology and water quality, noise, and tribal cultural resources.

According to the State CEQA Guidelines, it is appropriate to prepare an IS/MND for the proposed Project because, after incorporation of the recommended mitigation measures, potentially significant environmental impacts would be reduced to a level considered less than significant.

1.5 PROJECT APPROVAL

This IS/MND has been submitted to potentially affected agencies and individuals. The Notice of Intent (NOI) to adopt the IS/MND, as well as the environmental documentation are also available on the City of West Covina's website (https://www.westcovina.org/departments/community-development/planning-division/projects-and-environmental-documents) for review. Additionally, the NOI was published in the San Gabriel Valley Tribune.

A 30-day public review period has been established for the IS/MND beginning on November 19, 2020 and ending on December 21, 2020. The review period has been established in accordance with Section 15073 of the State CEQA Guidelines. During review of the IS/MND, affected public agencies and the interested public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the potentially significant effects of the Project can be avoided or mitigated. Comments on the IS/MND and the analysis contained herein must be received by 5:00 PM on December 21, 2020, and should be addressed to:

City of West Covina
Planning Division
Attention: Jo-Anne Burns
Planning Manager
1444 West Garvey Avenue South, 2nd Floor, Room 208
West Covina, CA 91790
JBurns@westcovina.org

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City will determine whether any substantial new environmental issues have been raised. If so, further documentation—such as an Environmental Impact Report (EIR) or an expanded IS/MND—may be required. If not, the Project and the environmental documentation are tentatively scheduled to be submitted to the West Covina Planning Commission and City Council for consideration.

1.6 ORGANIZATION OF THE INITIAL STUDY

The IS/MND is organized into sections, as described below.

- **Section 1.0: Introduction.** This section provides an introduction, Project summary, and overview of the conclusions in the IS/MND.
- **Section 2.0: Project Location and Environmental Setting.** This section provides a brief description of the Project location, relevant background information, and a description of the existing conditions of the Project site and vicinity.
- **Section 3.0: Project Description.** This section provides a description of the proposed Project, a statement of purpose and need, and necessary discretionary approvals.
- **Section 4.0: Environmental Checklist.** The completed Environmental Checklist Form from the State CEQA Guidelines provides an overview of the potential impacts that may or may not result from Project implementation. The Environmental Checklist Form also includes "mandatory findings of significance", as required by CEQA.
- **Section 5.0: References.** This section identifies the references used to prepare the IS/MND.

2.0 PROJECT LOCATION AND ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The approximate 9.14-acre Project site is located at 1651 East Rowland, in the City of West Covina. The Project site is located north of East Rowland Avenue and west of North Azusa Avenue. The Project site is surrounded by single family residential uses to the north and west of the Project site. Existing commercial uses are located immediately to the north, east, and south of the Project site across Rowland Avenue.

A 4-foot and a 6-foot wide easement from the southern boundary of the Project site has been granted to Southern California Edison Company (SCE), where overhead power lines on wooden poles are present on the northern and western Project boundaries.

2.2 EXISTING SITE AND AREA CHARACTERISTICS

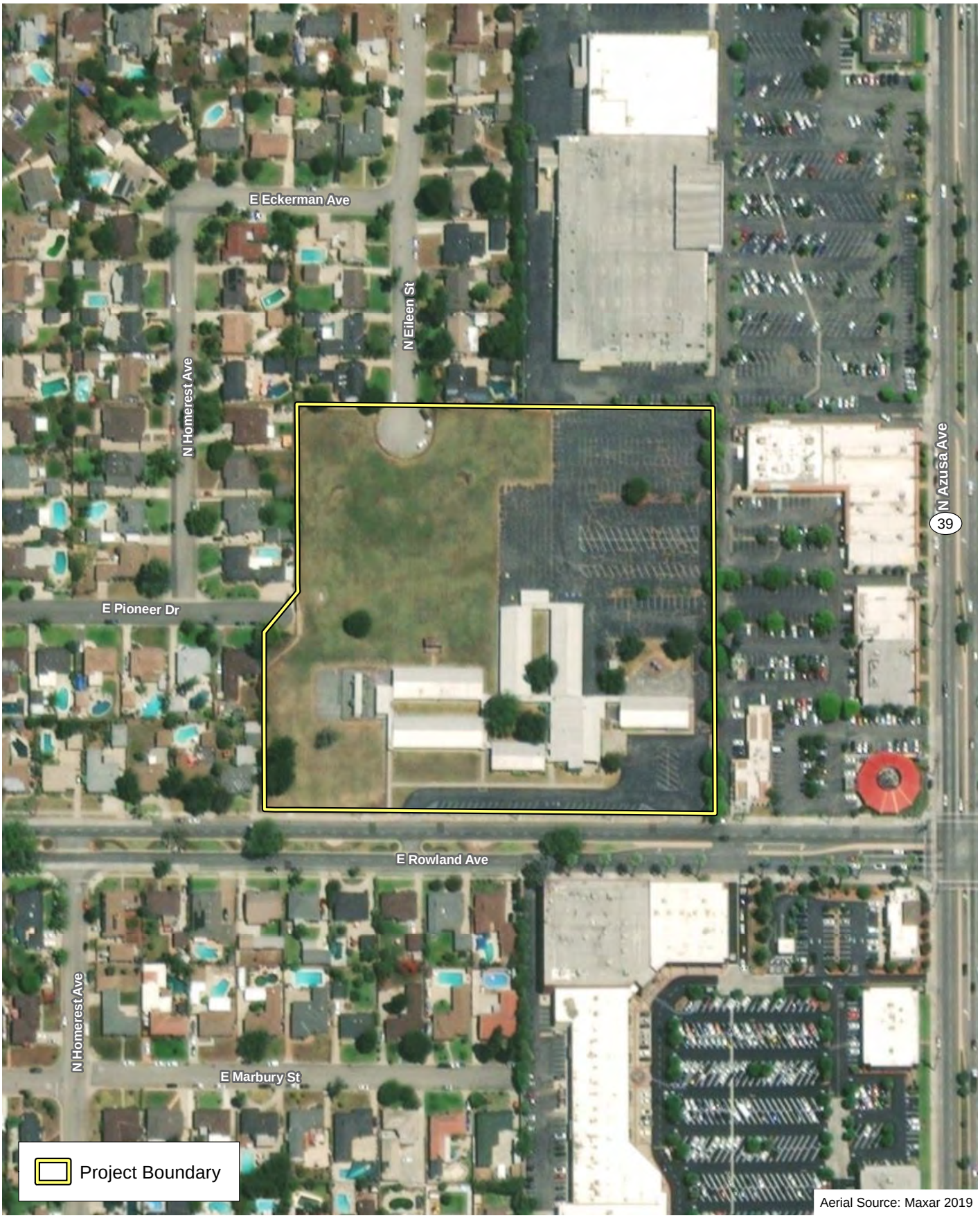
2.2.1 SITE ACCESS

Vehicular access to the Project site is provided by two primary ingress and egress points, located on East Rowland Avenue, on the southern boundary of the Project site. A fire access point is provided through an existing cul-de-sac, North at Eileen Street, terminating within the northwestern portion of the Project site. Rowland Avenue is a four-lane divided road that extends westerly from North Sunset Avenue (on the west) to South Grand Avenue (on the east) for approximately 3.6 miles. I-10 is located approximately 0.47 mile south of the Project site.

2.2.2 EXISTING SITE CONDITIONS

The Project site is developed with an adult school use (former Pioneer School), which is not currently in use. The southern portion of the site has nine one-story administrative buildings and classrooms, and three storage sheds. These nine buildings include: five permanent classroom buildings, a cafeteria, an administration building, and two temporary classroom structures. Recreational uses, such as fields and a paved playground are located throughout the site. Asphalt-paved surface parking lots are located adjacent to most of East Rowland Avenue, and a surface parking lot is also located in the northeastern portion of the Project site. The terminus of a cul-de-sac (North Eileen Street) is located within the northwestern Project boundary.

The site contains ornamental trees and shrubs scattered throughout the Project site. In areas not paved with asphalt, grass is present throughout the site, especially on the western half of the Project site. Chain-link fence borders portions of the southern Project boundary and surrounds recreational uses within the Project site. Block walls line the eastern perimeter of the site, with a chain-link fence lining the perimeter of the northern, western, and portions of the southern boundary. See Exhibit 2-1, Aerial Photograph.



D:\Projects\LewisOp\3LEW001200\MXD\MND\ex_AerialPhotograph_20200722.mxd

Aerial Photograph

Exhibit 2-1

Walnut Grove Residential Project

N
W E
S

200 100 0 200

Feet

PSOMAS

(Rev: 7-22-2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_AerialPhotograph.pdf

2.2.3 SURROUNDING LAND USES AND DEVELOPMENT

The Project site is located within a highly urbanized portion of the City of West Covina that includes a mix of residential and commercial land uses. As shown in Exhibit 2-1, the Project site is bordered by single-family residential and commercial uses to the north; commercial uses to the east; East Rowland Avenue, single-family residential, and commercial uses on the south across from East Rowland Avenue; and single-family residential uses to the west. A residential community exists to the south beyond the commercial uses. Commercial uses surrounding the site include grocery stores, restaurants; small retail establishments; and medical offices, among others.

2.3 PLANNING CONTEXT

2.3.1 GENERAL PLAN DESIGNATION

The Project site currently has a General Plan land use designation of Civic: Schools. The land use designations in the vicinity of the Project site includes Neighborhood—Low Density Residential and Neighborhood—Medium Density Residential to the north, Neighborhood—Medium Density Residential and Commercial to the east; Commercial and Neighborhood—Low Density Residential to the south; and Neighborhood Low Density Residential to the west.

2.3.2 ZONING DESIGNATION

In the City's Zoning Map, the site is zoned as R-1, Residential Single-Family (Limited Business). Adjacent zoning designations include R-1 and Neighborhood Commercial (N-C) to the north; Service Commercial (S-C) to the east; S-C and R-1 to the south; and R-1 to the west.

3.0 PROJECT DESCRIPTION

3.1 RESIDENTIAL LAND USE

The Project involves demolition and removal of the existing school uses and associated parking areas; preparation of the site for redevelopment (e.g., clearing and grading); and construction of 158 attached and detached residential development units, internal drive aisles, and common open space areas on the 9.14-acre site. The Project consists of two different housing types: 66 "Liberty Deluxe" detached single-family units in clusters with six or eight individual units (hereinafter referred to as "single-family units") and 92 "Bedford" attached row townhomes with five or six individual units (hereinafter referred to as "multi-family units"). The proposed dwelling units would feature three minimum floor plans for the single-family units, and a minimum of two floor plans for the multi-family units. Table 3-1 provides the breakdown of the proposed dwelling units. With adoption of the Walnut Grove Specific Plan, the Project would have a development density of 16.7 dwelling units per acre (du/ac), which would require a zone change to allow for a density between 15 and 18 single family du/ac.

TABLE 3-1
RESIDENTIAL UNITS

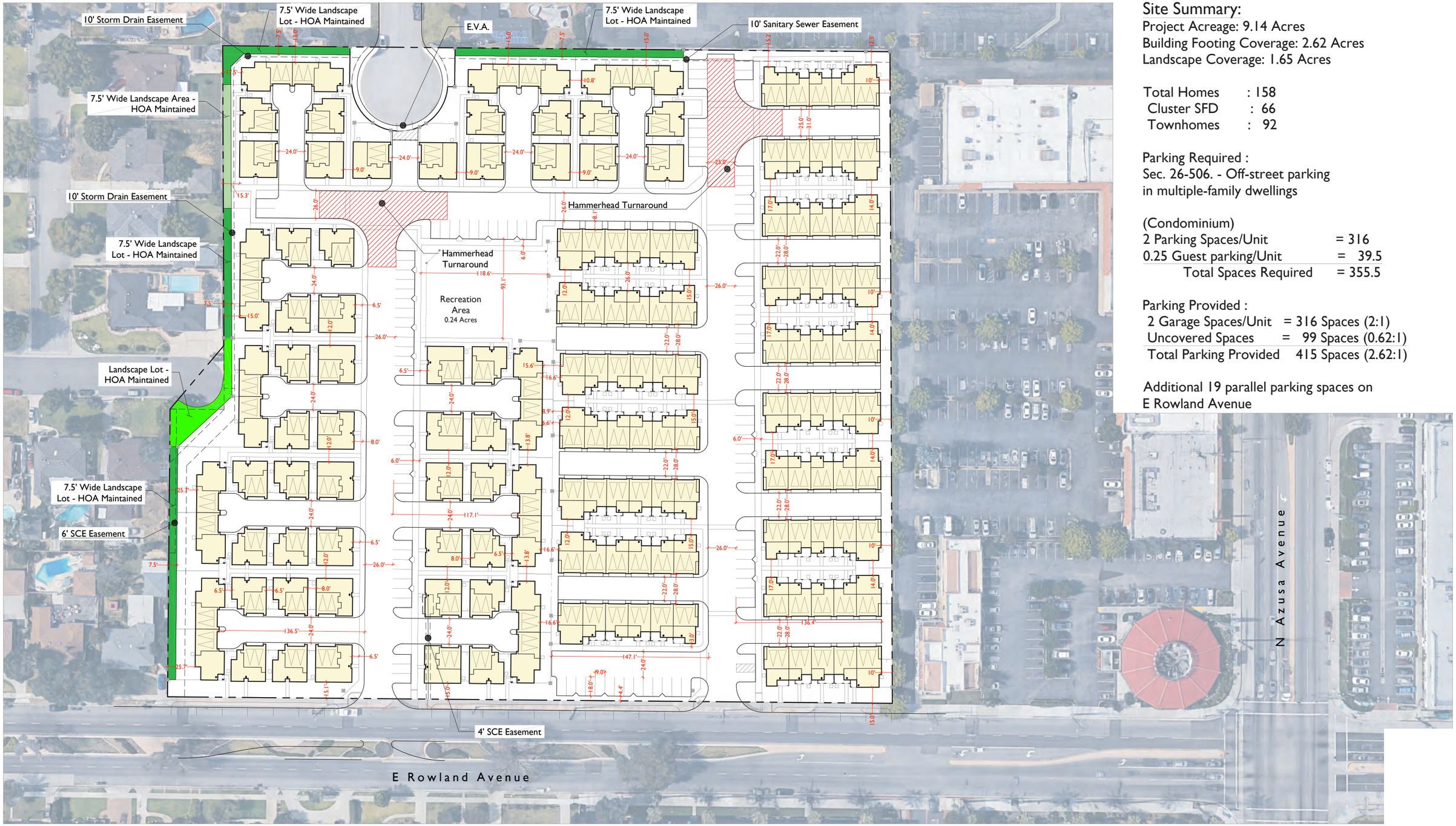
Floor Plan	Number of Units	Floor Area (sf)
Liberty Deluxe Detached Single-Family Residences	66	1,471 to 1,798
Bedford Townhomes	92	1,310 to 1,721
Total	***158***	**—**

sf – square feet

Source: Lewis Management Corp. 2020.

The single-family units would be arranged in clusters around a private drive alley, as depicted on Exhibit 3-1, Site Plan. The individual clusters of the single-family units would contain either six or eight units each. These dwelling units would be generally located on the western half of the Project site. As shown in Table 3-1, the typical floor plans would range from 1,471 sf to 1,798 sf within 2-story residences. Plan 1A would be 1,471 sf with 3 bedrooms, 2.5 baths, a 2-car garage, and a private outdoor yard. Plan 2A would be 1,663 sf with 3 bedrooms, 2.5 baths, a 2-car garage, and a private outdoor yard. Plan 3A would be 1,798 sf, with 4 bedrooms, 3 baths, a loft, a 2-car garage, and would include a private outdoor yard.

The multi-family units would be grouped in rows of five to six dwelling units and would be generally located on the eastern half of the Project site. The multi-family units would be three stories in height, with a minimum of three floor plans for these units. Typical floor plans would range from 1,310 to 1,721 sf for the multi-family units. For example, Plan 1 would be 1,310 sf, with 2 bedrooms, 2.5 baths, a 2-car garage, a porch, and a deck. Plan 2 would be 1,495 sf, with 2 bedrooms, 3 baths, a den, a 2-car garage, and a porch and deck. Plan 3 would be 1,721 sf with 3 bedrooms, 3.5 baths, a 2-car garage, and a porch.



Site Summary:

Project Acreage: 9.14 Acres
Building Footing Coverage: 2.62 Acres
Landscape Coverage: 1.65 Acres

Total Homes	: 158
Cluster SFD	: 66
Townhomes	: 92

Parking Required :
Sec. 26-506. - Off-street parking in multiple-family dwellings

(Condominium)

2 Parking Spaces/Unit	= 316
0.25 Guest parking/Unit	= 39.5
Total Spaces Required	= 355.5

Parking Provided :

2 Garage Spaces/Unit	= 316 Spaces (2:1)
Uncovered Spaces	= 99 Spaces (0.62:1)
Total Parking Provided	415 Spaces (2.62:1)

Additional 19 parallel parking spaces on E Rowland Avenue

Source: Lewis Group Of Companies, October 2020

Site Plan

Exhibit 3-1

Walnut Grove Residential Project

N W E S

Map not to scale

PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_SitePlan.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_SitePlan.ai

The single-family dwelling units and townhomes located adjacent to East Rowland Avenue would face the street frontage. Exhibit 3-1 shows the location of the proposed dwelling units, open space areas, access driveway, and drive aisles.

A common open space area would be provided on-site at one central location at the Project site, and private open spaces would be available for each single-family unit. The Project would have 100 sf of common open space per unit (including walking paseos and the neighborhood park use). The single-family units would have a minimum of 150 sf of private open space per unit, and the multi-family units would have a minimum of 100 sf of private open space per unit. The common open space area of the Project would consist of 0.27 acre of neighborhood park use, hereinafter referred to as the ("Community Open Space Area"). The Community Open Space Area would have a private park that is publicly accessible for use. Open space amenities would include bench seating areas and trash receptacles; picnic areas; children's tot-lot area; open turf area; connecting walkways; and mailboxes.

3.2 PROJECT ACCESS/PARKING

Two primary ingress and egress points are proposed on East Rowland Avenue, along the southern boundary of the Project site. The west driveway would be a full access driveway, and the east driveway would be a right-in right-out only driveway. The median on East Rowland Avenue in front of the west driveway would be reconstructed, as the existing median opening is slightly east of the proposed west driveway location. The median reconstruction would also include a left turn cutout to allow left turns directly into the site. All units would be accessible from either driveway. An additional fire access point is provided from north of the Project site, via the existing cul-de-sac at North Eileen Street. A series of 24-foot-wide private drive aisles would provide direct access to all units from the primary on-site 25-foot loop road within the Project site.

Because this is a Specific Plan project, the parking requirements are specified separately from the typical City standards. Per the Specific Plan, the Project is required to provide 2 parking spaces per unit and 0.5 guest parking spaces per unit. This would result in required 316 parking spaces for residents and 79 spaces for guests. The Project would provide 316 garage spaces and 99 uncovered guest spaces (20 spaces in excess of the requirement) at various locations throughout the Project.

In light of the access discussion, the following measures/features (i.e., project design features—PDFs) would be implemented by the development to self-mitigate the issues discussed above:

PDF TRA-1 The Project Applicant shall implement a left-in turn-pocket for eastbound traffic on East Rowland Avenue and left-out turn movements from the Project entrance. The new turn pocket will require modifications to the existing median to align the new turn-pocket with the Project entrance. Final engineering will determine the precise dimensions and details of the proposed turn-pocket and the required median modifications.

PDF TRA-2 The Project Applicant shall implement red curbing along the Project frontage on East Rowland based on line of site distance determined during final engineering to identify the limits of guest parking along the frontage.

The above PDFs are included in 4.17, Transportation, of this IS/MND.

3.3 ARCHITECTURAL DESIGN

The proposed single-family units would be 2 stories and a maximum of 27'-6" tall. Each single-family unit may have the following architectural styles, including, but not limited to: Cottage, Farmhouse, and Spanish Colonial styles, as shown on Exhibit 3-2, Front Elevations—Single Family Units. All multi-family units would be 3 stories and a maximum of 40'-4" tall. The architectural styles of the multi-family units may include, but not be limited to, Farmhouse or Spanish Colonial styles, as shown on Exhibit 3-3, Front Elevations—Multi-Family Units.

Each dwelling unit would feature variations in buildings and roof planes and combinations of roof forms, heights, and direction of the gables, depending on the architectural style established. Window shapes and details, including header, sill, and trim elements would be consistent with the architectural style of each building.

The Project site would include a new boundary or fence along the northern, eastern, and western perimeters of the site. The southern perimeter would include a combination of privacy fencing for individual homes and homes that front directly onto East Rowland Avenue. There would be no fencing at ingress/egress points or along the street-adjacent parking area at the southern perimeter. At the western and northern Project site boundaries, there would be a combination of 6-foot-tall precision block perimeter walls with a 4-inch cap, and a 6-foot tall enhanced split-face block perimeter wall with an enhanced beveled cap. The eastern and southern Project site boundaries would have a 6-foot tall enhanced split-face block perimeter wall with an enhanced beveled cap. Between private yards within the single-family dwelling units, there would be internal fencing with 6-foot tall vinyl privacy fences. In areas with private yards that abut common areas, there would be a 6-foot-tall single-sided split-face interior walls with 4-inch caps. Details on wall and fence locations and materials are shown on Exhibit 3-4, Conceptual Wall and Fence Plan.

3.4 CONCEPTUAL LANDSCAPE PLAN

The proposed conceptual landscape plan would include a hierarchy of plant materials including trees, vines, shrubs, and groundcover along the front yards of each unit, throughout the Project site, and in open space areas.

The centrally-located park would include landscape berm; 42-inch tall two rail fencing; trellis entry, trash receptable; bench seating; concrete path; children's tot lot with play equipment; picnic table and seating; and open turf play area.

A 7'-6" wide minimum homeowners association (HOA) maintained landscape area would be along the northern and western perimeter of the site. The boundary to the south would include trees and a parkway along East Rowland Avenue. The site entries on East Rowland Avenue would include monumentations comprised of stucco finish wall and pilaster with brick cap, precast concrete signage, and decorative planter pots. Refer to Exhibit 3-5, Conceptual Landscape Master Plan, for the proposed locations of landscaped and open space areas and Exhibit 3-6, Conceptual Park Enlargement Plan.

The landscape plan would also comply with Chapter 26, Article XIV, Division 1, Water Efficient Landscaping.

COTTAGE

FARMHOUSE

SPANISH COLONIAL

FARMHOUSE

SPANISH COLONIAL

Source: Lewis Group Of Companies, April/May 2020

Front Elevations—Single-Family Units

Exhibit 3-2

Walnut Grove Residential Project

PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_SingleFamilyUnits.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_SingleFamilyUnits.ai

FARMHOUSE

SPANISH COLONIAL

5-Plex 3-story Townhomes

FARMHOUSE

SPANISH COLONIAL

6-Plex 3-story Townhomes

Source: Lewis Group Of Companies, May 2020

Front Elevations—Multi-Family Units

Exhibit 3-3

Walnut Grove Residential Project

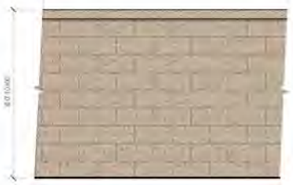
PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_MultiFamilyUnits.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_MultiFamilyUnits.ai

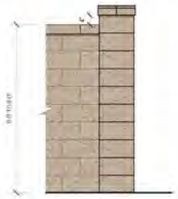
WALL AND FENCE LEGEND:

1. 6'-0" TALL SPLIT-FACE BLOCK PERIMETER WALL WITH 4" CAP.
2. 6'-0" TALL ENHANCED SPLIT-FACE BLOCK PERIMETER WALL WITH ENHANCED BEVELED CAP.
3. 6'-0" TALL PRECISION BLOCK PERIMETER WALL WITH 4" CAP.
4. 6'-0" TALL SINGLE SIDED SPLIT-FACE RETURN WALLS.
5. 6'-0" TALL VINYL PRIVACY FENCE.
6. 3'-0" WIDE VINYL ACCESS GATE.
7. 6'-8" TALL SPLIT-FACE PERIMETER PILASTER WITH 4" ENHANCED BEVELED CAP.
8. 3'-6" TALL 2-RAIL VINYL PVC COMMUNITY PARK FENCE.
9. 4'-0" TALL SPLIT FACE PERIMETER PILASTER AT COMMUNITY PARK.
10. REMOVABLE VEHICULAR BOLLARDS.
11. PROPOSED MONUMENT LOCATION.

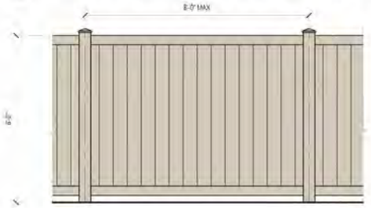


A 6' TO 8' TALL SPLITFACE BLOCK PERIMETER WALL W/ 4" CAP

B 6' TALL SPLITFACE BLOCK PERIMETER WALL w/ ENHANCED 4" BEVELED CAP

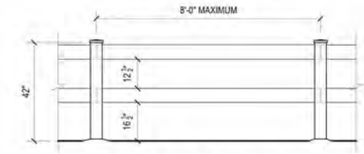


C 6'-8" TO 8'-8" TALL SPLITFACE BLOCK PERIMETER PILASTER w/ ENHANCED 4" BEVELED CAP

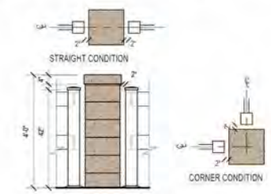


D 6' TALL PVC RETURN WALL, SIDE AND REAR YARD PRIVACY FENCE

E 3' WIDE VINYL SIDE YARD GATE AT VINYL RETURN WALL



F 2 RAIL PVC FENCE AT COMMUNITY PARK



G PILASTER CONDITION AT 2 RAIL PVC FENCE

H 6' TALL PRECISION BLOCK PERIMETER WALL

Source: Architerra Gesign Group, July 2020

Conceptual Wall and Fence Plan

Exhibit 3-4

Walnut Grove Residential Project

N W E S

Map not to scale

PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_ConceptualWall_and_FencePlan.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_ConceptualWall_and_FencePlan.ai

PLANT PALETTE:

TREES & VINES

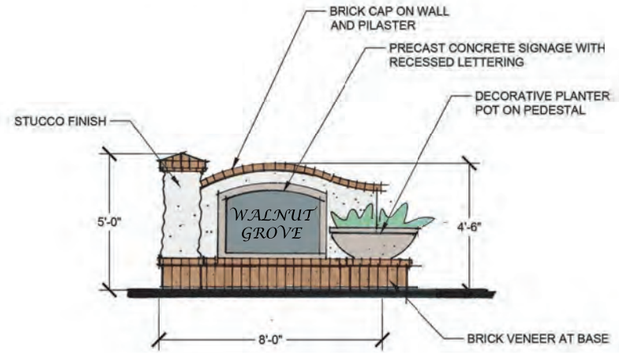
BOTANICAL NAME	COMMON NAME	SIZE
INTERIOR STREET TREE		
Tristania conferta	Brisbane Box	24" Box
UPRIGHT RESIDENTIAL CORRIDOR CANOPY TREE		
Hymenosporum flavum	Sweetshade Tree	24" Box
ALLEY AND CORRIDOR TERMINUS FOCAL TREE		
Melaleuca quinquenervia	Paperbark Tree	24" Box
LARGE MULTI-TRUNK SPECIMEN TREE		
Arbutus 'Marina'	Strawberry Tree	36" Box
FLOWERING ACCENT TREE		
Lagerstroemia indica x fauriei 'Arapaho'	Arapaho Crape Myrtle	24" Box
MOTORCOURT UPRIGHT ACCENT TREE		
Cupressus sempervirens 'Monshel'	Tiny Tower Italian Cypress	15 Gal.
SMALL FLOWERING ACCENT TREE		
Handroanthus chrysotrichus	Golden Trumpet Tree	24" Box
FLOWERING SHADE TREE		
Bauhinia x. blakeana	Hong Kong Orchid Tree	24" Box
ROWLAND AVENUE PARKWAY TREE		
Jacaranda mimosifolia	Jacaranda	24" Box
EVERGREEN SCREENING TREE MASS		
Podocarpus gracilior	Fern Pine	15 Gal.
VINES		
Parthenocissus tricuspidata	Boston Ivy	15 Gal.

SHRUBS AND GROUNDCOVER

BACKGROUND		
Arbutus unedo 'Compacta'	-	Dwarf Strawberry Tree
Arctostaphylos d. 'Howard McMinn'	-	Manzanita
Callistemon v. 'Little John'	-	Dwarf Bottlebrush
Cistus species	-	Rockrose
Echium fastuosum	-	Pride of Madeira
Frangula c. 'Eve Case'	-	Coffeeberry
Rosmarinus o. 'Tuscan Blue'	-	Rosemary
MIDGROUND		
Lavandula species	-	Lavender
Hesperaloe parvifolora 'Break Lights'	-	Red Yucca
Nandina domestica 'Fire Power'	-	Heavenly Bamboo
Muhlenbergia rigens	-	Deer Grass
Romneya coulteri	-	Matilija Poppy
Salvia clevelandii 'Pozo Blue'	-	Cleveland Sage
Salvia leucantha 'Santa Barbara'	-	Mexican Sage
FOREGROUND		
Anigozanthos 'Bush Baby'	-	Kangaroo Paw
Carex divulsa	-	Berkeley Sedge
Festuca o. 'Glauca'	-	Blue Fescue
Rosmarinus o. 'Huntington Carpet'	-	Rosemary
Senecio serpens	-	Blue Chalksticks
Trachelospermum jasminoides	-	Star Jasmine

FEATURE LEGEND:

1. 5' Wide, Medium Broom, Natural Color Concrete Interior Walkways.
2. 4' Wide, Medium Broom, Natural Concrete Residential Corridor Walkways.
3. A.C. Units Per Architects Plans.
4. 6' Wide Medium Broom, Natural Concrete Sidewalk at Head-In-Parking Stalls.
5. H.O.A. Landsacpe Areas.
6. Removable Bollards.
7. Enhanced Crosswalks.
8. Enhanced Paving at Main Entry Drive.
9. Proposed Monument Locations. (See Monument Elevation, This Sheet)
10. Parking Stalls Per Civil Engineer's Plans.
11. Existing Easements.
12. Existing Curb.
13. Proposed Parkway Along Rowland Avenue.
14. 7'-6" Wide Min. H.O.A. Maintained Landscape Lot.
15. Maintenance Access Gate.
16. Gang Mailbox Location with Trash Receptacle.
17. Proposed New Rowland Avenue, Median Alignment Per Civil Engineers Plans.
18. Curb Ramp with Truncated Domes Per Civil Engineer's Plans.
19. Minimum 3' Wide Utility Closet Access Concrete Pad
20. 4' Wide Medium Broom Natural Concrete Sideyard Access Path (w/ Utility Closet Access Pad).
21. 3' Wide Medium Broom Natural Concrete Private Residential Unit Entry Walkway.
22. Diamond Tree Planter.
23. 6' Tall EVA Double Swing Gate.



Source: Architerra Gesign Group, July 2020

Conceptual Landscape Master Plan

Exhibit 3-5

Walnut Grove Residential Project

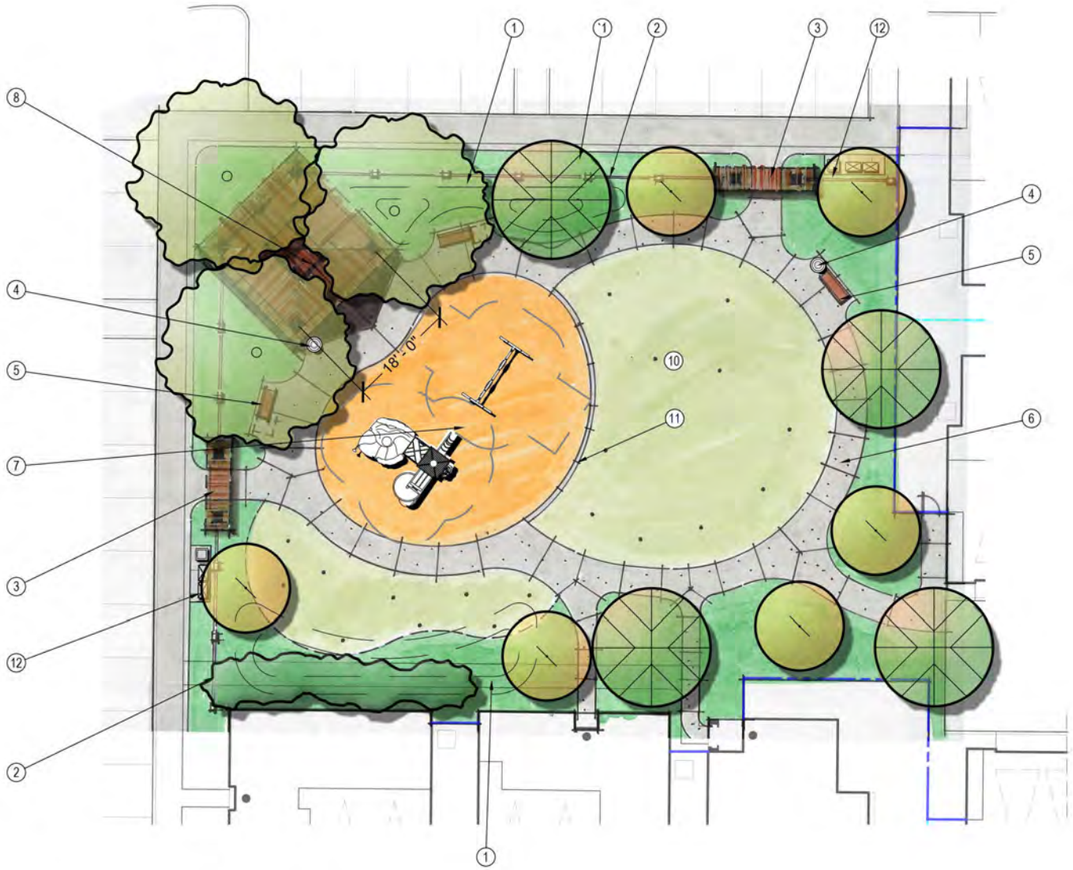
N W E S

Map not to scale

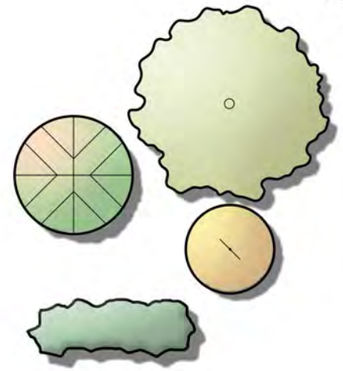
PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_ConceptualLandscapeMasterPlan.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_ConceptualLandscapeMasterPlan.ai



PLANT PALETTE:

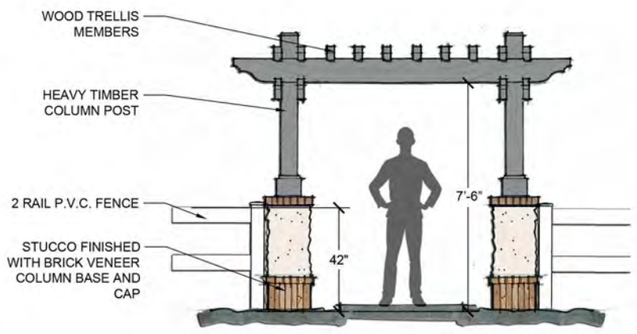


TREES & VINES

LARGE MULTI-TRUNK SPECIMEN TREE			
Arbutus 'Marina'	•	Strawberry Tree	36" Box
FLOWERING SHADE TREE			
Bauhinia x. blakeana	•	Hong Kong Orchid Tree	24" Box
SMALL FLOWERING ACCENT TREE			
Handroanthus chrysotrichus	•	Golden Trumpet Tree	24" Box
EVERGREEN SCREENING TREE MASS			
Prunus caroliniana 'Bright and Tight'	•	Carolina Laurel Cherry	

FEATURE LEGEND:

1. Landscape Berming.
2. 42" Tall 2 Rail P.V.C. Fencing.
3. Wood Arbor Trellis Entry.
4. Trash Receptacle.
5. Bench Seating.
6. 5' Wide Medium Broom Natural Concrete Path.
7. Children's Tot-Lot with Play Equipment, Swing Set and Rubber Surfacing.
8. Pre-Fabricated Covered Structure with Decorative Column Post and Picnic Table Seating.
10. Open Turf Play Area.
11. Concrete Header.
12. Gang Mailbox Location.



WOOD ARBOR ENTRY TRELLIS
SCALE : 1/2" = 1'-0"

CONCEPT IMAGES

BENCH SEATING

PICNIC TABLE

TRASH RECEPTACLE

2 RAIL PVC FENCE

MAILBOX

COVERED SHADE STRUCTURE

Source: Lewis Group Of Companies, April 2020

Conceptual Park Enlargement Plan

Exhibit 3-6

Walnut Grove Residential Project

N W E S

Map not to scale

PSOMAS

(08/10/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_ConceptualParkEnlargmentPlan.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_ConceptualParkEnlargementPlan.ai

3.5 CONSTRUCTION ACTIVITIES

Construction activities are anticipated to begin in March 2021 and occur in a single phase, through December 2021, for a total of 10 months. Construction activity would occur for 8 hours per day, and 6 days per week, in accordance with the City's permitted hours of construction.

3.5.1 DEMOLITION

Implementation of the Project would include demolition of the existing buildings and site improvements, which would result in 100 truckloads exported from the Project site. A portion of the demolition and construction debris (65 percent) would be recycled, reused, and/or salvaged in compliance with the California Green Building Standards Code (CALGreen Code). Materials that cannot be recycled, reused, or salvaged would be transported to a local landfill. Any hazardous materials (e.g., asbestos-containing materials and lead-based paint) encountered during demolition would be handled and disposed of in accordance with South Coast Air Quality Management District (SCAQMD) rules and other pertinent regulations.

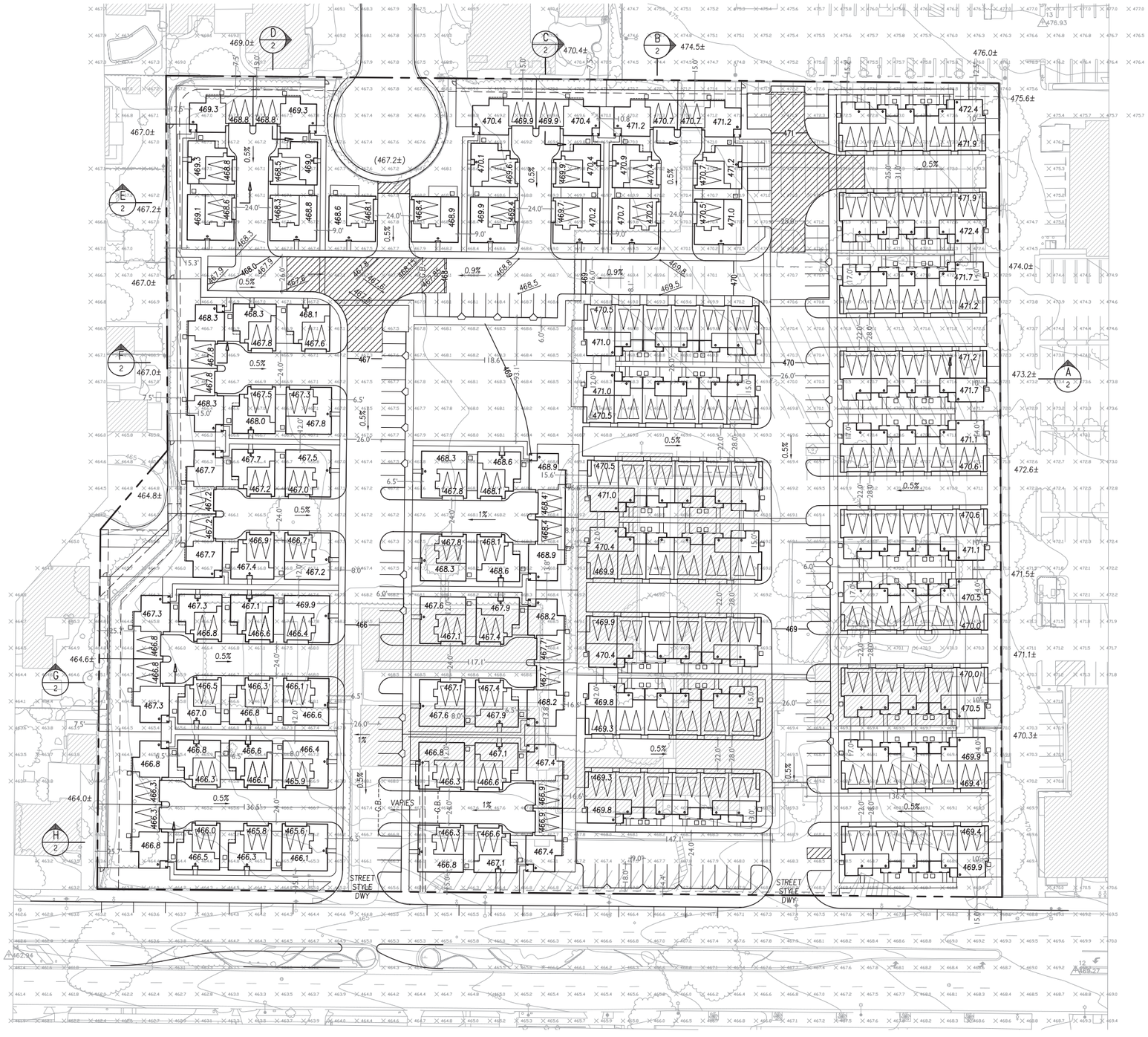
3.5.2 GRADING/CONSTRUCTION

The proposed grading of the site would retain the relatively flat topography. Total earthwork proposed is approximately 9,740 cubic yards (cy) of import, with 86,150 cy of cut, and 95,900 cy of fill. Due to grade differences from offsite adjacent properties, a combination of retaining and freestanding walls would be required, with a combined height between 9 to 10 feet. All retaining walls would comply with the City of West Covina requirements. The Conceptual Grading Plan is depicted on Exhibit 3-7, Conceptual Grading Plan.

Construction activities would utilize standard construction equipment, including earth-moving equipment, trucks, cranes, and forklifts. Construction activities and construction staging would mainly occur within the Project site boundaries. Implementation of traffic control measures during demolition and construction activities would minimize obstruction of vehicular traffic on public roadways in the vicinity of the Project site.

3.5.3 OFF-SITE IMPROVEMENTS

Off-site improvements would include storm drain improvements, parkway improvements, and utility connections (water, sewer, electricity, natural gas, and telecommunication lines). Exhibit 3-8 shows the Conceptual Utility Plan. A private storm drain system, which would be located within the main drive aisles would convey the site's stormwater runoff to an underground detention system in the guest parking lot adjacent to East Rowland Avenue. Stormwater would infiltrate, be detained, and meter the runoff onto East Rowland Avenue to match historical drainage patterns and volumes at the Project site. In addition, stormwater from North Eileen Avenue would be intercepted and re-routed through the onsite storm drain system. This would allow for abandonment of the existing storm drain swale and easement along the westerly boundary of the site and improved drainage for the area. These encroachments would occur in compliance with City regulations. Any right-of-way dedication and public infrastructure improvements would also be conducted in accordance with the City's municipal code.



EARTHWORK

	CUT (C.Y.)	FILL (r.)
RAW EXCAVATIONS	6150	6450
OVER-EXCAVATION & RE-COMPACTION (3' SITE)	80,000	80,0C
SUBSIDENCE (0.2' SITE)	–	1,450
LOSS (10%)	–	8,00C
TOTAL	86,150	95,9C
IMPORT		9,750 Y.

* ASSUMES 8" THICKNESS ROADWAY/PARKING BASE AND PAVEMENT.

NOTES:

1. HOUSE/UNIT ELEVATIONS ARE PAD GRADE
2. STREET CONTOUR ARE FINISH PAVEMENT

Source: Lewis Group Of Companies, July 2020

Grading Plan

Exhibit 3-7

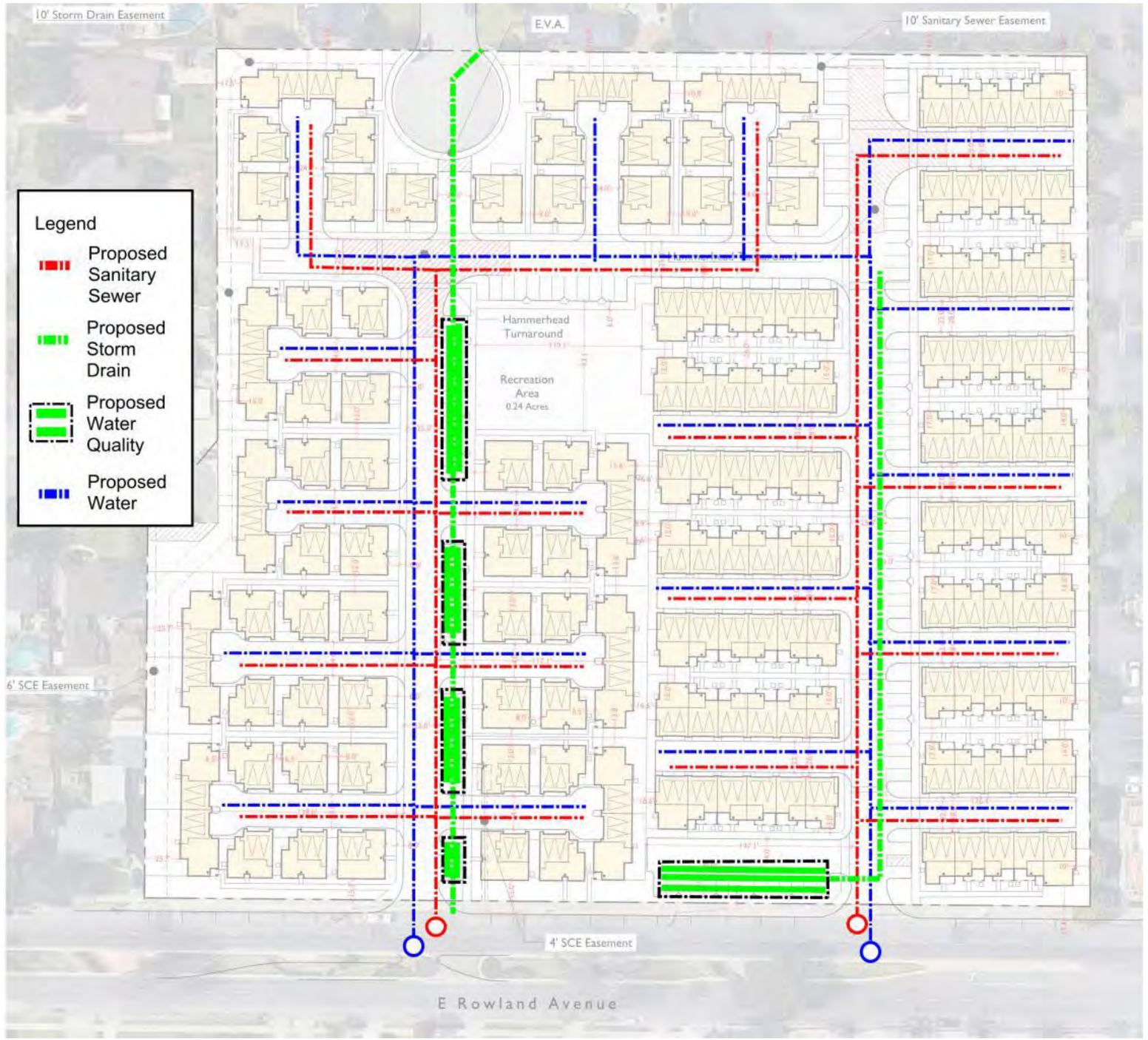
Walnut Grove Residential Project

N W E S Map not to scale

PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_GradingPlan.pdf

D:\Projects\LewisOp\3LEW001200GRAPHICSMND\ex_GradingPlan.ai



Source: City Of West Covina, July 2020

Conceptual Utility Plan

Exhibit 3-8

Walnut Grove Residential Project

N
W E
S

Map not to scale

PSOMAS

(07/22/2020 RMB) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_ConceptualUtilityPlan.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_ConceptualUtilityPlan.ai

3.6 DISCRETIONARY APPROVALS

This IS/MND is intended to serve as the primary CEQA environmental document for all actions associated with the proposed Project, including all other approvals beyond the City's authority needed to implement the Project. The following discretionary approvals are required for Project approval.

3.6.1 GENERAL PLAN LAND USE AMENDMENT

The Project site has an existing General Plan Land Use designation of Civic: Schools. Approval of the Project and adoption of the Walnut Grove Specific Plan requires a concurrent adoption of a General Plan Land Use Amendment to the "Neighborhood Medium" land use designation, which allows densities between 9 and 20 dwelling units. The Walnut Grove Specific Plan seeks a density of 16.7 dwelling units per acre with an overall plan area size of 9.14 acres. Upon the General Plan Amendment, the Specific Plan would be consistent with the General Plan.

3.6.2 ZONE CHANGE AND SPECIFIC PLAN ADOPTION

The Project site is currently zoned as Residential Single-Family (R-1).The R-1 zoning of the site is not consistent with its General Plan land use designation and requires a Zone Change to Specific Plan. Upon adoption by ordinance of the Walnut Grove Specific Plan, it would constitute as the zoning for the Project site, and therefore, the Project would be consistent with the Zoning Code.

The Walnut Grove Specific Plan is established through the authority granted to the City of West Covina by California Government Code, Title 7, Division 1, Chapter 3, Article 8, Sections 65450 and 65457 (Specific Plans). This Government Code establishes the minimum requirements and review procedures for specific plans, requiring that a specific plan include text and diagrams that specify all of the following:

- The distribution, location, and extent of land uses, including open space, within the area covered by the plan.
- The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
- Standards and criteria by which development will be provided, and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the project.

A specific plan is a legislative planning tool that serves as the zoning for the property involved. Development plans, site plans, and tentative tract/parcel maps must be consistent with both the Specific Plan and the City's General Plan. The Walnut Grove Specific Plan must be adopted for Project approval.

3.6.3 PRECISE PLAN

A Precise Plan must be approved for the site layout and architecture of the Project.

3.6.4 TREE REMOVAL

A Tree Removal Permit must be approved for the removal of significant trees on site.

Per Section 26-289 of the West Covina Municipal Code, a significant tree is a tree located on private and/or public property that meets one or more of the following requirements:

a. is located in the front yard of a lot or parcel and has a caliper of one (1) foot or more;

b. is located in the street-side yard of a corner lot and has a caliper of one (1) foot or more; and

c. is located anywhere on a lot, has a caliper of six (6) inches, or more, and is one of the following species:

Common Name	Genus/Species
Oak (any oak tree native to California, including, but not limited to:	
Valley Oak	*Quercus lobata*
California Live Oak	*Quercus agrifolia*
Canyon Oak	*Quercus chrysolepis*
Scrub Oak	*Quercus dumoso*
Mesa Oak	*Quercus engelmanii*
Interior Live Oak	*Quercus wislezenii*
California Sycamore	*Platanus racemosa*
American Sycamore	*Platanus occidentalis*

3.6.5 MITIGATED NEGATIVE DECLARATION

In compliance with CEQA, the State CEQA Guidelines, the City of West Covina would adopt Mitigated Negative Declaration, prior to approval of the Project. The MND serves as a finding that the Project would not have a significant effect on the environment, with the incorporation of mitigation measures, as appropriate.

3.6.6 TENTATIVE TRACT MAP

The Tentative Tract Map must be approved for the "condominium" map to create an "air space" subdivision of units and for shared ownership of the common lot.

3.7 MINISTERIAL APPROVALS

In addition, the following ministerial permits would be sought from the City of West Covina:

- Demolition Permit for existing buildings and site improvements

- Grading Permit
- Building Permits
- Occupancy Permits
- Encroachment Permit for driveway, sidewalk, and utility connections on adjacent streets

The Project would require coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board (SWRCB). The Project would also require a demolition permit from the SCAQMD.

This page intentionally left blank

4.0 ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION: (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

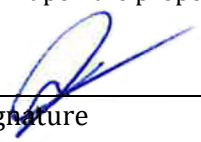
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 be 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 al 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.



Signature — 11/17/2020 — Date

Jo-Anne Burns — Printed Name

City of West Covina — For

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

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

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 "Earlier Analysis," as described in (5) below, may be cross-referenced).

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

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant 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) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

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

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

4.1 AESTHETICS

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

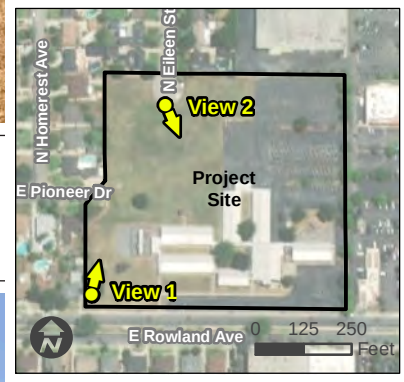
Impact Analysis

Existing Views and Visual Character

The Project site is currently developed with surface parking lots at the southeastern and northeastern portions, nine administrative buildings and classrooms at the southern portion, three storage sheds, a paved play area, and an athletic field in the west and northwestern portions of the Project site. Access to the site is primarily from East Rowland Avenue. Existing North Eileen Street terminates in a cul-de-sac within the property. Exhibits 4-1a through 4-1c, Existing Site Views, include photographs that depict the existing visual character of the Project site. More specifically, Views 1 through 6 on Exhibit 4-1a through Exhibit 4-1c are views of the on-site buildings and site improvements.

- **View 1**, looking north from the Project's southern boundary, shows a view of the existing vegetation lining the Project's western boundary along a chain-link fence with dry grasses dispersed throughout this view. Existing chain-link fence surrounding the onsite buildings are visible. Distant partial views of the San Gabriel and San Bernardino Mountains can be seen from this location.
- **View 2**, looking south from the northwestern portion of the Project site, shows dry grasses in the foreground, with existing one-story administrative buildings. A surface parking lot with a dumpster and some landscaping and mature trees are also depicted in this view.
- **View 3**, looking northeast from the sidewalk along East Rowland Avenue shows the façade of the Pioneer School building, which is painted shades of blue and beige, with graffiti visible on the front of the building. Dispersed vegetation and mature trees are visible from this location. Parking spaces are in the foreground. Commercial uses are in the background, as well as a portion of East Rowland Avenue.

View 1



View 2

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_Site_Views_A.ai

Existing Site Views

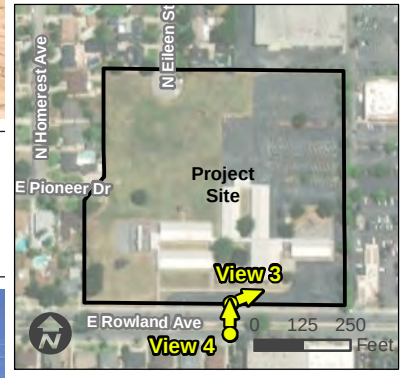
Exhibit 4-1a

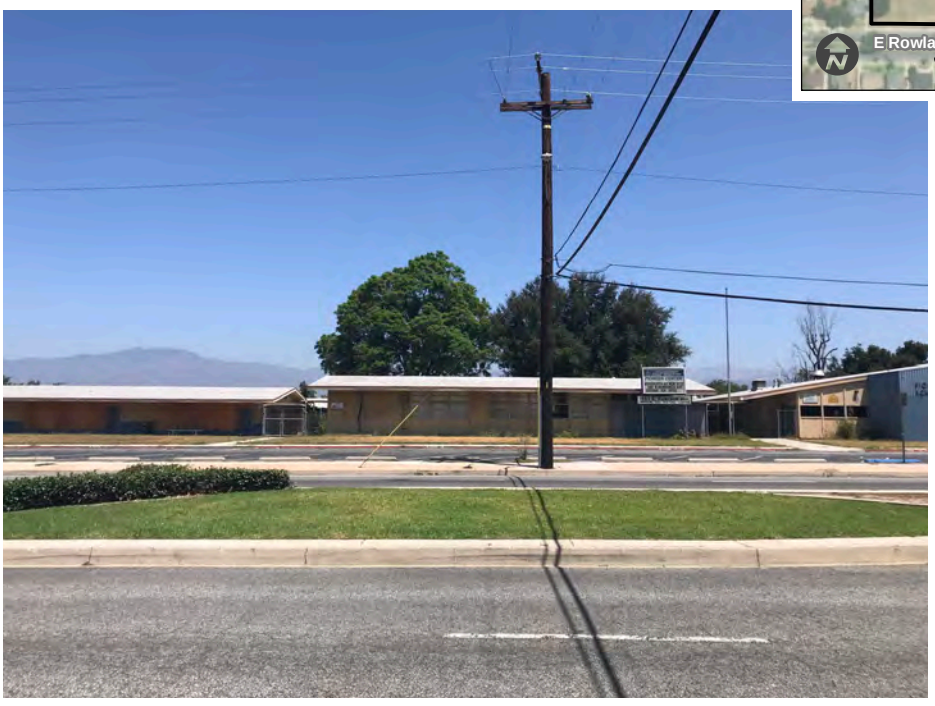
Walnut Grove Residential Project

PSOMAS

(08/03/2020 MMD) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_Site_Views.pdf

View 3





View 4

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_Site_Views_B.ai

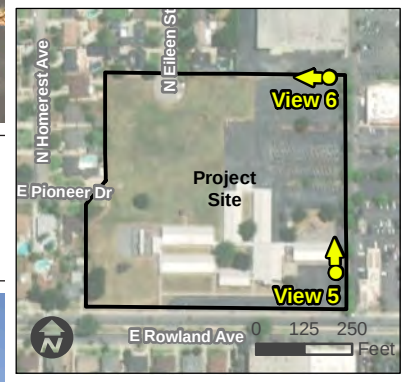
Existing Site Views

Exhibit 4-1b

Walnut Grove Residential Project

PSOMAS

View 5



View 6

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_Site_Views_C.ai

Existing Site Views

Exhibit 4-1c

Walnut Grove Residential Project

PSOMAS

(08/03/2020 MMD) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_Site_Views.pdf

- **View 4**, looking north from across East Rowland Avenue, across the street from the Project site depicts the various onsite administrative buildings and mature trees on the site. An electrical pole is in the foreground. Distant views of the San Gabriel and San Bernardino Mountains are visible from this location.
- **View 5**, looking north from the southwestern portion of the Project site shows cracked asphalt in the foreground with the property's concrete block walls at the edge of the site. An onsite one-story administrative building is visible from this location, with chain-link fence connecting the existing building and property wall. An access gate with a "no trespassing" light is visible. Some mature trees are visible on the Project site. Outside of the Project site boundary, views of existing mature trees, a cell phone tower (with a pine-tree disguise), electrical poles, and roofs of existing commercial uses are visible. Distant partial views of the San Gabriel Mountains are also visible from this location.
- **View 6**, looking west from the northeastern corner of the Project site, shows the existing broken asphalt with dispersed vegetation, a multi-color concrete block wall separating the Project site from commercial uses. Distant views of single-family residences are visible from this location.

Would the Project:

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

Less than Significant Impact. The Our Natural Community Element of the City's General Plan identifies the San Jose Hills, located at the southeasterly boundary of the City, as the scenic vista (City of West Covina 2016a). The San Jose Hills are located 3.6 miles southeast of the Project site. The City is located within the San Gabriel Valley, with the San Gabriel Mountains and San Bernardino Mountains located approximately 5 miles north and northeast of the Project site. The Los Angeles National Forest and San Gabriel Mountains are visible in the background throughout West Covina; however, their views are dependent on the viewer's vantage point and orientation and are not designated as scenic vistas by the City.

Under the Our Natural Community Element, Access to Nature, Policy 1.9, encourages minimization of view obstruction by requiring analysis of potential impacts to views of natural areas from public streets, parks, trails, and community facilities, during review of public and private development projects. East Rowland Avenue is a public street adjacent to the Project site; views from East Rowland Avenue are shown on Views 3 and 4 of Exhibit 4-1b. As shown in Views 3 and 4, views of the San Gabriel and San Bernardino Mountains are visible and provide a scenic backdrop from certain vantage points; however, these views are partially obstructed by existing development and mature trees and are limited due to the topography of the area. Additionally, View 2, on Exhibit 4-1a, shows distant partial views of the tops of the San Jose Hills from the Project site.

The Project site is currently developed with single-story administrative buildings and associated uses, including surface parking and scattered landscaping. However, implementation of the Project would include construction of new structures and buildings and result in denser development than the existing Project site. The single-family units would be 2 stories and at a maximum height of 27'-6" tall. The multi-family units would be 3 stories tall and at a maximum height of 40'-4" feet. Overall, the proposed building heights would be taller than existing uses. Due to the proposed Project's location in the central area of the City and the lack of scenic

resources in the immediate area, the Project would not have a substantial adverse effect on a scenic resource. Views of the San Jose Hills with Project implementation would be consistent with existing views; partial views may be offered at certain vantage points, but intervening structures and trees would continue to block most views of the San Jose Hills. Similarly, with implementation of the Project, the San Gabriel and San Bernardino Mountains would continue to offer partial views at certain vantage points on East Rowland Avenue, but intervening structures and trees would continue to block most views of the San Gabriel and San Bernardino Mountains. Implementation of the Project would not further exacerbate obstruction of existing views, which are currently mostly blocked by existing development and mature trees. Therefore, impacts related to scenic vistas would be less than significant, and no mitigation is required.

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

No Impact. There are no officially designated scenic highways within West Covina (City of West Covina 2016a). The nearest Officially Designated Highway is portions of the Angeles Crest Highway, located approximately 20 miles north of the Project site, (Caltrans 2011). Views of the Project site from this Officially Designated Highway are completely obstructed by distance and intervening topography, and there is no direct line-of-sight to the Project area such that short-term construction activities and long-term operation would affect public views from the Angeles Crest Highway. State Route (SR) 57 between SR 91 and SR 60, located approximately 2 miles east of the southeastern tip of the City, is identified as Eligible for State Scenic Highway designation (City of West Covina 2016b). There are no scenic resources, including trees, rock outcroppings, and historic buildings in the vicinity of the Project site. Views of the Project site from the portion of SR-57, which is an Eligible State Scenic Highway, are completely obstructed by intervening topography, and there is no direct line-of-sight to the Project area such that short-term construction activities and long-term operation would affect public views from SR 57. Therefore, implementation of the Project would not damage scenic resources within a State scenic highway. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact. The aerial photograph (Exhibit 2-1) previously presented, shows the Project site's relationship to the surrounding land uses. Single family residences are located adjacent to the Project's western and northern boundaries. East Rowland Avenue is adjacent to the Project's southern boundary, with residential and commercial uses south of East Rowland Avenue. The Project's northeastern and eastern boundaries abut surface parking lots and commercial uses. Due to the developed nature and flat topography of the Project area, the presence of mature trees and existing walls, views of the Project site are limited to immediately adjacent vantage points, as further described below. However, given the views to be analyzed are from public and not private vantage points, only views from East Rowland Avenue experienced by transient users (i.e., passengers in vehicles and pedestrians) on East Rowland Avenue would be considered. There are no other public vantage points such as from public parks and trails that would have views of the Project site.

Visual Changes

During demolition and construction activities on the Project site, views of construction equipment; ongoing demolition and construction activities; short-term stockpiles of building materials and debris; and haul trucks delivering building materials and removing debris would be visible from surrounding area. These views would be typical of construction sites in an urban environment and temporary in nature. Project construction is anticipated to occur in a single phase, for a total of 10 months. Additionally, construction staging would occur within the Project's boundaries. Therefore, the impacts would be less than significant, and no mitigation is required.

Once construction is completed, the proposed Project would alter views of the Project site by replacing the existing school uses with attached and detached residential units. The 66 detached single-family units would be oriented in a cluster configuration, centered around private alleys, in groups of 6 or 8 units. The single-family units would be 2 stories and a maximum of 27'-6" feet tall. The 92 attached multi-family units (townhomes) would be grouped in 5 or 6 units. All multi-family units would be 3 stories and a maximum of 40'-4" feet tall. Each residential unit may have unique architectural style for visual interest.

Two access points would be located on East Rowland Avenue. The west driveway would be a full access driveway, and the east driveway would be a right-in right-out only driveway. A common open space area would be provided on-site at one location, located centrally at the Project site, and private open spaces would be available for each single-family unit. Given the quality of the design and architecture, the Project would be an improvement over the existing condition of the site. The common open space area of the Project would consist of 0.27 acre of neighborhood park use. The Community Open Space Area would have a private park that is publicly accessible for use.

The proposed Project would replace on-site landscaping with trees, shrubs, and groundcover along the front yards of each unit, throughout the Project site, and in open space areas. The Project would also comply with the sign regulations in the City's Zoning Code, as needed. Considering this, view of the site from a public vantage point (East Rowland Avenue) would be of a high-quality development with landscaping visible from adjacent roadways.

While the proposed Project would alter the existing visual character of the Project site from a school use to a residential development and would change views from the surrounding public vantage point (i.e., East Rowland Avenue), this change would not be considered a degradation of the Project site or its surroundings. The new development would replace older structures and increase visual interest and character of the site with quality design and landscaping. The Project would be required to comply with Section 26-547, Specific Plan (S-P) zone, which has requirements for design elements, such as orientation of buildings and uses, building bulk and scale, building height and setback, parking, traffic generation, noise and landscaping (RR AES-1). Therefore, this would ensure that the design of the Project uses would be compatible with the surrounding uses and the General Plan requirements. The introduction of 158 residences and associated site improvements would also be compatible the existing residential uses north, south, and west of the proposed Project. In light of visual improvement over the existing condition and the quality of design, the Project would not substantially degrade the visual character or quality of the site for public viewers Therefore, no impacts would occur, and no mitigation is required.

In the absence of scenic resources in the vicinity of the site, the Project would not conflict with applicable zoning and other regulations governing scenic quality and resources. The Project would comply with City regulations, through RR AES-1 and RR BIO-1. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact. The Project site is in an area that is already subject to ambient lighting from the existing residential and commercial/retain uses surrounding the site. Streetlights are also present on East Rowland Avenue. The existing light sources include exterior building lights, parking lot pole lights, and interior building lights.

With the demolition of the existing development and construction of the proposed Project, new light sources would be provided with the proposed dwelling units, along the internal drive aisles, and in the common open space area. This would change lighting levels at the Project site but would be consistent with the ambient and night-time lighting at the residential uses surrounding the site.

However, to avoid potential impact and light trespass onto the surrounding uses, the Walnut Grove Specific Plan includes provisions to address the potential lighting issues. In compliance with the Specific Plan, fixtures would have devices to aim light downward with a minimum 70 percent cut off. Additionally, the City's Municipal Code regulates lighting to ensure that sensitive land uses are not affected by lighting associated with new developments. Section 26-519 of the City's Municipal Code requires that "all lighting of the building, landscape, parking area, or similar facilities shall be hooded and directed to reflect away from adjoining properties" for multiple-family residential zones. This is generally accomplished with shielding and directional lighting methods. Furthermore, the proposed perimeter block walls would provide screening of on-site lighting onto adjacent residential uses. Due to the urban nature of the Project site and existing lighting near the Project site, impacts associated with new lighting from the proposed Project would be less than significant, and no mitigation is required.

Glare is a common daytime phenomenon and is due mainly to the occurrence of a high number of days per year with direct sunlight and the presence of large reflective surfaces. Excessive glare not only restricts visibility but also increases the ambient heat reflectivity in a given area. Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on intensity and direction of sunlight. Glare can create hazards to motorists and nuisances for pedestrians and other viewers. The proposed dwelling units would be constructed with primarily non-reflective materials such as stucco on the exterior facades and concrete or clay tile roofing*. The use of glass would be confined to windows and* is not such that would generate substantial glare affecting surrounding uses. Additionally, during nighttime, the proposed lighting would not be more intense than the surrounding uses, and no lighting that is considered of high intensity such as high wattage security lighting is proposed that would cause substantial nighttime glare. Per the Walnut Grove Specific Plan, lighting fixtures would be selected and located appropriately to avoid unwanted glare. Signs would be lit at night to aid with wayfinding and identification. Signage lighting would be aimed directly at the designated signage and designed such that would not negatively impact pedestrian or vehicle line-of-sight with unwanted glare. The Project would

also comply with City regulations (RR AES-2). Impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

RR AES-1 Project design would be required to comply with Section 26-547, Specific Plan (S-P) Zone, of the West Covina Specific Plan. The City shall review and approve the Specific Plan, with consideration to elements including, but not limited to, orientation of buildings and uses, building bulk and scale, building height and setback, and landscaping.

RR AES-2 Exterior lighting for the Project shall be designed and constructed in compliance with Section 26.519, Lighting, of the West Covina Municipal Code.

Mitigation Measures

Project implementation would not result in significant impacts related to aesthetics; therefore, no mitigation measures are required.

4.2 AGRICULTURE AND FOREST RESOURCES

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

Impact Analysis

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?

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

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

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

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

No Impact. The Project site is in an urbanized area and would not convert farmland to a non-agricultural use. Based on review of the Los Angeles Important Farmland 2016, prepared by the California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP),

there are no lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on or near the Project site (FMMP 2020). The Project site is in "unclassified/out of survey area". The Project site is not being used, nor anticipated to be used or zoned for agricultural purposes. The site is not subject to a Williamson Act contract, and it does not contain Prime Farmland or Farmland of Statewide Importance. Additionally, no forest land occurs on the Project site or in the surrounding area. Therefore, the proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. In addition, the Project site does not contain designated forest land or timberland, as defined in the California Public Resources Code (§§12220[g] and 4526, respectively) (OLC 2020). Therefore, no impacts to agricultural resources, forest land, or timberland would result from Project implementation, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to agriculture and forest resources; therefore, no mitigation is required.

4.3 AIR QUALITY

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

Impact Analysis

The South Coast Air Quality Management District (SCAQMD) has established quantitative thresholds for short-term (construction) emissions and long-term (operational) emissions for the following criteria pollutants: ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, and particulate matter 10 and 2.5 microns. The characteristics and health effects of these criteria pollutants are described below:

- Ozone (O_3) is a nearly colorless gas that is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight). Ground-level O_3 exposure can cause a variety of health problems, including lung irritation, wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities; permanent lung damage; aggravated asthma; and increased susceptibility to respiratory illnesses.
- Carbon monoxide (CO) is a colorless and odorless toxic gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can lead to headaches, aggravation of cardiovascular disease, and impairment of central nervous system functions.
- Nitrogen oxides (NOx) are yellowish-brown gases, which at high levels can cause breathing difficulties. NOx are formed when nitric oxide (a pollutant from internal combustion processes) combines with oxygen.
- Sulfur dioxide (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children.
- Particulate Matter 10 (PM10) and Particulate Matter 2.5 (PM2.5) refer to particulate matter less than ten microns and two and one-half microns in diameter, respectively. Particulates of this size cause a greater health risk than larger-sized particles since fine particles can more easily cause irritation. Particulate matter includes both aerosols and

solid particles. An example of particulate matter is fugitive dust. Short-term exposure to high PM2.5 levels is associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure to high PM2.5 levels is associated with premature mortality and development of chronic respiratory disease. Short-term exposure to high PM10 levels is associated with hospital admissions for cardiopulmonary diseases, increased respiratory symptoms, and possible premature mortality.

The SCAQMD regulates air quality in the Los Angeles County and is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SoCAB). The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs).

The SCAQMD adopted the 2016 AQMP on March 3, 2017 (SCAQMD 2017). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including Southern California Association of Government's (SCAG's) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts.

The two principal criteria for conformance to an AQMP are:

1. Whether a project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP.
2. Whether a project will exceed the assumptions in the AQMP based on the year of Project buildout.

To estimate if a project may adversely affect the air quality in the region, the SCAQMD has prepared the *Air Quality Analysis Guidance Handbook* (SCAQMD CEQA Handbook) to provide guidance to those who analyze the air quality impacts of projects (SCAQMD 1993). The SCAQMD CEQA Handbook provides significance thresholds for both construction and operation of projects within the SCAQMD's jurisdictional boundaries. The SCAQMD recommends that projects be evaluated in terms of the quantitative thresholds established to assess both the regional and localized impacts of project-related air pollutant emissions. The SCAQMD CEQA Handbook states that any project in the SoCAB with daily emissions that exceed any of the identified significance thresholds may have an individually and cumulatively significant air quality impact. The City of West Covina uses the current SCAQMD thresholds to determine whether a project would have a significant impact (SCAQMD 2019). These SCAQMD thresholds are identified in Table 4-1, *South Coast Air Quality Management District Air Quality Significance Thresholds*.

TABLE 4-1
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds (lbs/day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
SOx	150	150
Lead	3	3

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SOx: sulfur oxides.

Source: SCAQMD 2019.

Existing Air Quality Conditions

The monitoring data presented in Table 4-2, Air Quality Measurements at the Azusa Monitoring Station, were obtained from the SCAQMD and CARB (SCAQMD 2020, CARB 2020). Pollutants measured at this monitoring station include O_3, PM10, PM2.5, NO_2, CO. Federal and State air quality standards are presented with the number of times those standards were exceeded.

TABLE 4-2
AIR QUALITY MEASUREMENTS AT THE AZUSA MONITORING STATION

Pollutant	California Standard	National Standard	Year	Max. Level[a]	State Standard Days Exceeded[b]	National Standard Days Exceeded[b, c]
O_3 (1 hour)	0.09 ppm	None	2016	0.146	30	4
			2017	0.152	38	7
			2018	0.139	24	3
O_3 (8 hour)	0.070 ppm	0.070 ppm	2016	0.107	40	39
			2017	0.114	64	62
			2018	0.100	43	42
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2016	74.6	12/-	0/0
			2017	83.9	7/-	0/0
			2018	78.3	10/59.2	0/0
PM10 (AAM)	20 µg/m^3	None	2016	33.7	N/A	N/A
			2017	31.4	N/A	N/A
			2018	32.2	N/A	N/A
NO_2 (1 Hour)	0.18 ppm	0.100 ppm	2016	0.074	0	0
			2017	0.065	0	0
			2018	0.070	0	0
NO_2 (AAM)	0.030 ppm	0.053 ppm	2016	0.017	–	–
			2017	0.016	–	–
			2018	0.015	–	–
CO (8 hour)	9.0 ppm	9.0 ppm	2016	1.2	–	–
			2017	0.9	–	–
			2018	1.0	–	–
PM2.5 (24 Hour)	None	35 µg/m^3	2016	32.1	N/A	0/0
			2017	24.9	N/A	0/0
			2018	41.8	N/A	1/3
PM2.5 (AAM)	12 µg/m^3	15 µg/m^3	2016	10.15	N/A	N/A
			2017	10.42	N/A	N/A
			2018	10.35	N/A	N/A

O_3: ozone; ppm: parts per million; PM10: respirable particulate matter with a diameter of 10 microns or less; µg/m^3: micrograms per cubic meter; AAM: annual arithmetic mean; NO_2: nitrogen dioxide; CO: carbon monoxide; PM2.5: fine particulate matter with a diameter of 2.5 microns or less

"–" indicates that the data are not reported or there is insufficient data available to determine the value. N/A indicates that there is no applicable standard.

[a] California maximum levels were used.
[b] For annual averaging times, a "Yes" or "No" response is given if the annual average concentration exceeded the applicable standard.
[c] PM is measured once every 6 days. Where 2 values are shown for PM10 and PM2.5, the first is for the measured value, and the second is the estimated value if monitored every day.

Source: SCAQMD 2020, CARB 2020.

Regulatory Background

The U.S. Environmental Protection Agency (USEPA) defines seven "criteria" air pollutants, as described above. These pollutants are called criteria pollutants because the USEPA has established National Ambient Air Quality Standards (NAAQS) for the concentrations of these pollutants (USEPA 2014). The California Air Resources Board (CARB) has also established

standards for the criteria pollutants, known as California Ambient Air Quality Standards (CAAQS), and the State standards are generally more restrictive than the NAAQS. When a region has air quality that fails to meet the standards, the USEPA and the CARB designate the region as "nonattainment" and the regional air quality agency must develop plans to attain the standards.

Based on monitored air pollutant concentrations, the USEPA and the CARB designate an area's status in attaining the NAAQS and the CAAQS, respectively, for selected criteria pollutants. These attainment designations are shown in Table 4-3. As identified in Table 4-3, Los Angeles County is a nonattainment area for O3, PM10, and PM2.5 for the State standards and a nonattainment area for O3, and PM2.5 for the State standards.

TABLE 4-3
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No standards
O_3 (8 hour)	Nonattainment	Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No standards

O_3: ozone; PM2.5: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; SoCAB: South Coast Air Basin.

* Los Angeles County is classified nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards.

Source: CARB 2018

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for coordinating and administering both the federal and State air pollution control programs in California. In this capacity, CARB conducts research, sets the CAAQS (as shown in Table 4-4), compiles emission inventories, develops suggested control measures, oversees local programs, and prepares the State Implementation Plan (SIP). For regions that do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. These plans are then integrated into the SIP. CARB establishes emissions standards for (1) motor vehicles sold in California, (2) consumer products (e.g., hair spray, aerosol paints, barbecue lighter fluid), and (3) various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Ozone (O3) is a secondary pollutant and is created when nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the presence of sunlight. The predominant source of air emissions generated by Project development would be from vehicle emissions. Motor vehicles primarily emit CO, NOx, and VOCs. The NAAQS and CAAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The NAAQS and CAAQS for O3, CO, NO2, SO2, PM10, PM2.5, and lead are shown in Table 4-4.

TABLE 4-4
CALIFORNIA AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[a]	Secondary[b]
O_3	1 Hour	0.09 ppm (180 µg/m³)	–	–
	8 Hour	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)	Same as Primary
PM10	24 Hour	50 µg/m³	150 µg/m³	Same as Primary
	AAM	20 µg/m³	–	Same as Primary
PM2.5	24 Hour	–	35 µg/m³	Same as Primary
	AAM	12 µg/m³	12.0 µg/m³	15.0 µg/m³
CO	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	–
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	–	–
NO_2	AAM	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	–
SO_2	24 Hour	0.04 ppm (105 µg/m³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m³)
	1 Hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	–
Lead	30-day Avg.	1.5 µg/m³	–	–
	Calendar Quarter	–	1.5 µg/m³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)		

O_3: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; PM10: respirable particulate matter 10 microns or less in diameter; AAM: Annual Arithmetic Mean; –: No Standard; $_{PM2.5}$: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer.

[a] *National Primary Standards:* The levels of air quality necessary, within an adequate margin of safety, to protect the public health.
[b] *National Secondary Standards:* The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: SCAQMD 2016

Would the Project:

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

Less than Significant Impact. CEQA requires a discussion of any inconsistencies between a project and applicable General Plans (GPs) and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the Proposed Project includes the SCAQMD's AQMP, as discussed above.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency, as discussed above:

> (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
>
> (2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both criteria are evaluated for the Project, as shown below.

With respect to the first criterion, based on the air quality modeling analysis conducted for the proposed Project [thresholds 4.3(b) and 4.3(c), below)], construction and operation of the Project would not exceed the SCAQMD's CEQA thresholds of significance and consequently would not result in an increase in the frequency or severity of existing air quality violations nor cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP. Therefore, the Project is consistent with the first criterion.

With respect to the second criterion, the proposed Project was assessed as to whether it would exceed the assumptions in the AQMP. The SCAQMD's current air quality planning document is the 2016 Air Quality Management Plan (2016 AQMP). The 2016 AQMP is a regional and multi-agency effort among the SCAQMD, CARB, SCAG, and USEPA. The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's 2016-2040 RTP/SCS; updated emission inventory methods for various source categories; and SCAG's latest growth forecasts (SCAQMD 2017). The 2016 AQMP includes strategies and measures necessary to meet the NAAQS. The AQMP is based on projections of energy usage and vehicle trips from land uses within the SoCAB.

The Project site is designated by the General Plan for civic (schools) land use designation. As part of the Project, adoption of the Walnut Grove Specific Plan requires a General Plan land use Amendment to the "Neighborhood Medium" Land use designation. Upon amendment, the

Specific Plan (i.e., Project) would be consistent with the General Plan, its land use designation, and its relevant goals and objectives. Because the Project would require that its existing land use be re-designated, the Project would not be consistent with the assumptions in the 2016 AQMP. However, implementation of the Project results in emissions, which are less than the significance thresholds adopted by the SCAQMD (as detailed in the following emissions analyses). In addition, the proposed residential uses provide housing near commercial uses and within a Transit Priority Area (TPA), and this would minimize travel to and from this destination, which would reduce transportation-related emissions and be consistent with the goals of the AQMP. As such, the proposed Project is not anticipated to exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the second criterion. Therefore, the Project would not result in an inconsistency with the SCAQMD's 2016 AQMP. Less than significant impacts would occur, and no mitigation is 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. Los Angeles County is a nonattainment area for O3, PM10, and PM2.5, as shown in Table 4-3, Attainment Status of Criteria Pollutants in the South Coast Air Basin. The Project would generate PM10, PM2.5, NO2, and O3 precursors (NOx and VOC) during short-term construction and long-term operations.

Construction Impacts

Construction-Related Regional Impacts

A project may have a significant impact where project-related emissions would exceed federal, State, or regional standards or thresholds, or where project-related emissions would substantially contribute to an existing or projected air quality violation.

A project with daily emission rates below the SCAQMD's established air quality significance thresholds (shown in Table 4-1) would have a less than significant impact on regional air quality. Project emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer program (CAPCOA 2016). CalEEMod is designed to model construction and operational emissions for land development projects and allows for the input of project- and County-specific information. The CalEEMod input for construction emissions was based on the Project's construction assumptions (as detailed in Section 3.5, Construction Activities) and default assumptions derived from CalEEMod. Demolition of the on-site buildings and asphalt was estimated to generate demolition debris of approximately 100 truckloads to be exported from the Project site.

Table 4-5, Estimated Maximum Daily Construction Emissions, presents the estimated maximum daily emissions during construction of the proposed Project and compares the estimated emissions with the SCAQMD's daily regional emission thresholds. As shown in Table 4-5, all criteria pollutants are below the SCAQMD's respective thresholds.

TABLE 4-5
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2021	15	67	37	<1	7	4
Maximum Emissions	**15**	**67**	**37**	**<1**	**7**	**4**
SCAQMD Thresholds (Table 4-1)	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Source: SCAQMD 2019 (thresholds); see Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

Cumulative Construction Impacts

Construction activities associated with the proposed Project would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Table 4-5, Estimated Maximum Daily Construction Emissions, and Table 4-7, Localized Significance Threshold Construction Emissions (discussed under Threshold 4.3c), respectively. Short-term cumulative impacts related to air quality could occur if construction of the Project and other projects in the surrounding area were to occur simultaneously. In particular, with respect to local impacts, the consideration of cumulative construction particulate (PM10 and PM2.5) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of: (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants), and (2) the SCAQMD's required dust-control measures, which further limit particulate dispersion from the Project site.

SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant (SCAQMD 2003a). Because the Project's construction emissions are below the SCAQMD's regional and local significance thresholds, local construction emissions would not be cumulatively considerable, and the impact would be less than significant. No mitigation is required.

Operational Impacts

The following section provides an analysis of potential long-term air quality impacts to regional air quality with the long-term operation of the proposed Project. The potential operations-related air emissions have been analyzed below for the regional and local criteria pollutant emissions and cumulative impacts.

Operations-Related Regional Impacts

Operational emissions associated with the Project are comprised of area, energy, and mobile source emissions. The principal source of VOC emissions associated with the Project would result from vehicle trips. Area and energy source emissions are based on CalEEMod assumptions for the specific land uses and size. Mobile source emissions are based on estimated Project-

related trip generation forecasts, as contained in the Project traffic impact analysis. The Project would generate 1,124 daily trips (Psomas 2020). The peak day operational emissions for VOC, NOx, CO, SOx, PM10, and PM2.5 daily emissions that would be created from the Project's long-term operation have been calculated and are summarized below in Table 4-6, Peak Daily Operational Emissions.

TABLE 4-6
PEAK DAILY OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)*					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area sources	8	2	14	<1	<1	<1
Energy sources	<1	1	<1	<1	<1	<1
Mobile sources	2	8	28	<1	8	2
Total Operational Emissions*	**10**	**11**	**42**	**<1**	**9**	**3**
SCAQMD Significance Thresholds (Table 2)	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Some totals do not add due to rounding.

Source: SCAQMD 2019 (thresholds); see Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

The data provided in Table 4-6 shows that none of the analyzed criteria pollutants would exceed the regional emissions operational thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the Project. No mitigation is required.

Cumulative Operational Impacts

As shown in Table 4-6, Peak Daily Operational Emissions, and Table 4-8, Localized Significance Thresholds Operational Emissions (under Threshold 4.3c, below) operational emissions of VOC, NOx, CO, SOx, PM10, and PM2.5 would be below the SCAQMD CEQA significance thresholds. Consistent with the approach described above (under Cumulative Construction Impacts), SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant. Therefore, because the Project's operational emissions are less than the respective SCAQMD daily operational thresholds, the Project's operations phase activities would not contribute to a cumulatively considerable net increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable and would be less than significant. No mitigation is required.

Cumulative Health Impacts

The SoCAB is designated as nonattainment for O3, PM10, and PM2.5, which means that the background levels of those pollutants are, at times, higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (the elderly, children, and the sick). Therefore, when the concentrations of those

pollutants exceed the standard, it is likely that some sensitive individuals in the population would experience health effects. These health effects are not identified for specific individual receptors nor does the analysis identify the magnitude of health effects. The regional analysis detailed above found that the Project would not exceed the SCAQMD regional significance thresholds for VOC and NOx (ozone precursors), PM10, and PM2.5. As such, the Project would result in a less than significant cumulative health impact. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. A significant impact may occur when a project would generate pollutant concentrations to a degree that would significantly affect sensitive receptors, which include populations that are more susceptible to the effects of air pollution than the population at large. Exposure of sensitive receptors is addressed for emissions from construction and operation of the proposed Project. To address construction activities, the analysis below includes the following analyses: localized air quality impacts from construction and toxic air contaminants (TACs), specifically diesel particulate matter (DPM) from on-site construction, and asbestos and exposure to lead-based paint during demolition activities. To address operational emissions exposure to sensitive receptors, the analysis below discusses local air quality impacts from on-site operations and CO hotspots. Operational, long-term TACs may be generated by some industrial land uses; commercial land uses (e.g., gas stations and dry cleaners); and diesel trucks on freeways. Residential uses do not generate substantial quantities of TACs and are therefore not addressed in this analysis.

Construction

Localized Criteria Pollutants from On-Site Construction

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NOx, CO, PM10, and PM2.5 are examined based on SCAQMD localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO2 and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards (SCAQMD 2016). The closest receptors to the Project site are single family uses adjacent to the Project's northern and western boundaries. Individuals at these residences were evaluated for exposure for 1 hour and 24 hours. The emissions thresholds are for receptors within 25 meters (82 feet) of the Project site; the thresholds for receptors farther away would be higher, and the Project emissions would be a smaller fraction of the thresholds.

Table 4-7, Localized Significance Threshold Construction Emissions, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LSTs with receptors within 25 meters for a Project site area of 4.5 acres. The Project's maximum daily on-site emissions would occur during the grading phase. As shown in Table 4-7, the localized emissions from the Project would be below the thresholds, and no significant impacts would result to sensitive receptors. No mitigation is required.

TABLE 4-7
LOCALIZED SIGNIFICANCE THRESHOLD CONSTRUCTION EMISSIONS

	Emissions (lbs/day)			
Emissions and Thresholds	**NOx**	**CO**	**PM10**	**PM2.5**
Project maximum daily on-site emissions	56	34	6	4
SCAQMD Localized Significance Threshold[a]	**173**	**1,684**	**13**	**8**
Exceed threshold?	**No**	**No**	**No**	**No**

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

[a] Data is for SCAQMD Source Receptor Area 11, South San Gabriel Valley, 25-meter distance, 4.5 acres.

Source: SCAQMD 2009 (thresholds); see Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

Toxic Air Contaminant Emissions from On-Site Construction

Construction activities would result in short-term, project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; building construction; and other miscellaneous activities. CARB identified DPM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments—which determine the exposure of sensitive receptors to TAC emissions—should be based on a 40-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation is required.

Exposure to Asbestos and Lead Paint During Demolition

Exposure of persons to asbestos-containing materials (ACM) and lead-based paint (LBP) during demolition is addressed in Section 4.9, Hazards and Hazardous Materials, of this IS/MND. The buildings onsite contain ACM and LPB, per the Limited Asbestos Inspection Report and Lead-Based Paint/Ceramic Tile Inspection Reports, included as appendices to this IS/MND (Appendices E2 and E3, respectively). The demolition of these materials would then be handled in accordance with applicable regulations (RR HAZ-1 through RR HAZ-3). The impacts would be less than significant, and no mitigation is required.

Operational

Localized Criteria Pollutants from On-site Operations

Project-related air emissions may have the potential to exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB. Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, and on-site usage of natural gas appliances may have the potential to generate emissions that exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB.

The local air quality emissions from on-site operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the LST Methodology. Table 4-8, Localized Significance Threshold Operational Emissions, shows the on-site operational emissions from area sources, energy usage, vehicles operating on-site, and the calculated emissions thresholds.

TABLE 4-8
LOCALIZED SIGNIFICANCE THRESHOLD OPERATIONAL EMISSIONS

On-Site Emission Source	Pollutant Emissions (pounds/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Area Sources	2	14	<1	<1
Energy Sources	1	<1	<1	<1
Mobile Sources[a]	<1	1	<1	<1
Project's total maximum daily on-site emissions	**4**	**16**	**1**	**<1**
SCAQMD Localized Significance Threshold[b]	**183**	**1,814**	**4**	**2**
Exceeds Threshold?	**No**	**No**	**No**	**No**

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

[a] Onsite vehicle emissions based on 5% of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project site.

[b] Data is for SCAQMD Source Receptor Area 11, San Gabriel Valley, with a source receptor distance of 25-meters, 9 acres.

Source: SCAQMD 2009 (thresholds); see Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

The data provided in Table 4-8 shows that the ongoing operations of the Project would not exceed the local NOx, CO, PM10, and PM2.5 thresholds of significance. Therefore, operation of the Project would create a less than significant impact to sensitive receptors, and no mitigation is required.

Carbon Monoxide Hotspot

In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (e.g., congested intersection) increases. Therefore, for purposes of providing a

conservative worst-case impact analysis, CO concentrations typically are analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts also would be less than significant at more distant sensitive-receptor and other locations. Per the Focused Traffic Study prepared for the proposed Project, implementation of the Project would result in 82 trips in the AM peak hour and 106 trips in the PM peak hour with a total of 1,124 trips per day. Existing traffic volumes along East Rowland Avenue is approximately 12,000 trips per day and over 40,000 trips per day along North Azusa Avenue. The 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (SCAQMD 2003b) evaluated numerous intersections for the potential to result in CO hotspots and found that the 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. Because the roadways proximate to the Project site have substantially less traffic than 400,000 trips per day, CO concentrations at nearby roadway intersections are anticipated to be substantially less than the CO ambient air quality standards. Moreover, vehicle standards have become increasingly more stringent since 1992 and background CO concentrations are less than in 1992. As such, existing CO concentrations would be less than the ambient air quality concentration standards and the small contribution of Project-related traffic would likewise not result in CO concentrations that would exceed either the State or federal ambient air quality standards. The Project would result in less than significant impacts related to CO hotspots, and no mitigation is required.

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

Less than Significant Impact. Project construction would use equipment and activities that could result in other emissions (such as those leading to odors). However, these odors would be typical during construction and not extraordinarily objectionable. Potential construction odors include on-site construction equipment's diesel exhaust emissions as well as roofing, painting, and paving operations. There may be situations where construction activity odors could be noticed. However, these odors would be temporary and would dissipate rapidly from the source with an increase in distance. These odors would not be of such magnitude to cause a public nuisance. Therefore, the impacts would be short-term; would not affect a substantial number of people; and would be less than significant.

According to the SCAQMD CEQA Handbook, land uses associated with odor complaints typically include agricultural uses, sewer treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project does not include any uses identified by the SCAQMD as being associated with odors, and therefore, would not likely produce objectionable odors. In addition, the Project uses are regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402, Nuisance. Rule 402 prohibits discharge from any source of air contaminants or other material which would cause injury, detriment, nuisance, or annoyance to people or the public. Overall, there would be a less than significant impact, and no mitigation is required.

Regulatory Requirements

RR AQ-1 All construction activities shall be conducted in compliance with South Coast Air Quality Management District's Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's specifications.

RR AQ-2 All construction activities shall be conducted in compliance with South Coast Air Quality Management District Rule 402, Nuisance, which states that a 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".

Mitigation Measures

Project implementation would not result in significant impacts related to air quality; therefore, no mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

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

Impact Analysis

A Habitat Assessment has been prepared by ELMT Consulting (November 2018) for the proposed Project to document baseline conditions and assess the potential for special-status plant and wildlife species to occur within the Project site that could pose a constraint to implementation of the proposed Project. The findings of the Habitat Assessment are summarized below, and the report is included as Appendix B to this IS/MND.

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 or U.S. Fish and Wildlife Service?

No Impact. The Project site is located within an urban area and surrounded by commercial and residential uses. As a result of urbanization of the land, the entire Project site and immediate surrounding areas are developed and no longer support undeveloped land. Native plant

communities were removed from the site several decades ago from development of the property. The vegetation on the Project site consists of ornamental plant species. However, several native oak trees are located at the Project site, as depicted on Exhibit 4-2, Existing Tree Inventory Plan.

No fish, amphibian, or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish or amphibians were observed on or within the vicinity of the Project site. Therefore, no fish are expected to occur and are presumed absent from the Project site (ELMT Consulting 2018). Great Basin fence lizard (Sceloporus occidentalis longipes) was the only reptilian species observed on-site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on-site include western side-blotched lizard (Uta stansburiana elegans) and alligator lizard (Elgaria multicarinata) (ELMT Consulting 2018). Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status reptilian species are expected to occur within the Project site. The Project site provides minimal foraging habitat for bird or mammal species that have adapted to human disturbance. The existing landscaping provides potential habitats for common animal species that are typically found in urban areas, such as small mammals, birds, small reptiles, and insects. However, the site does not provide natural habitats for sensitive plant and animal species.

Review of the USFWS' Critical Habitat for Threatened and Endangered Species shows there are no designated critical habitat areas on or near the site. The nearest critical habitat is located in Galster Park, approximately 2.3 miles to the south.

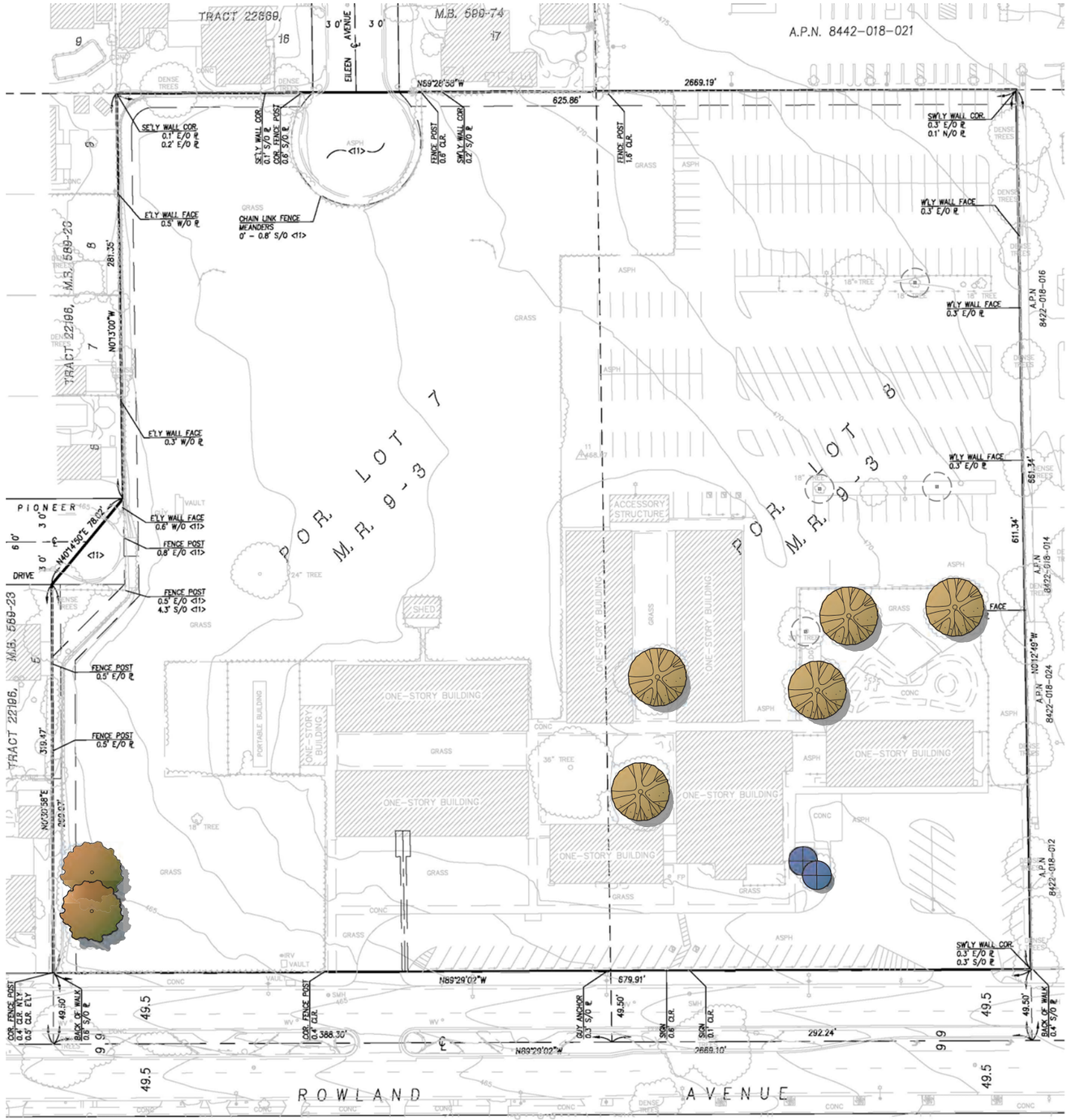
Since there are no natural or sensitive biological resources on the Project site, the proposed Project would not impact any candidate, sensitive, or special status species, as identified in the local or regional plans, policies, or regulations by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). There would be no impact on sensitive species, and no mitigation is required.

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

No Impact. The Project site is currently developed, and stormwater sheet flows across the asphalt pavement, ribbon gutters, and catch basins toward abutting streets. The site supports ornamental landscaping at scattered locations but does not contain riparian habitat or sensitive natural vegetation communities identified by CDFW and USFWS. There would be no impact to riparian habitats or sensitive natural vegetation communities, and no mitigation is required.

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

No Impact. The Project site is largely paved and does not support State or federally protected wetlands, or other areas under the jurisdiction of the CDFW, the Regional Water Quality Control Board (RWQCB), or U.S. Army Corps of Engineers (USACE). Per the Habitat Assessment performed for the Project site, there are no jurisdictional drainage, wetland, or riparian habitats at the Project site. However, it should be noted that a concrete-lined storm drain was observed along the western boundary of the Project site. This storm drain was constructed in the uplands



TREE INVENTORY LEGEND:

SIGNIFICANT TREES
(OAK TREES 6" DIA. OR GREATER & (FRONT YARD) PROJECT SITE TREES 10" DIA. OR GREATER):

- QUERCUS AGRIFOLIA - COAST LIVE OAK, 5 TREES TOTAL
- ACER SPP. - MAPLE TREE
- CALLISTEMON VIMINALIS - BOTTLE BRUSH TREE
- DEAD TREE (12" OR GREATER IN SIZE)

TREE INVENTORY NOTES:

- **THIS SITE DOES NOT HAVE ANY HERITAGE TREES.**
- **SIGNIFICANT TREES FOR THIS SITE ARE:**
  - **A. OAK TREES 6" OR GREATER IN DIAMETER;**
  - **B. ANY TREE LOCATED IN THE (FRONT YARD) PROJECT SITE GREATER IN DIAMETER.**

Source: Lewis Group Of Companies, March 2020

Existing Tree Inventory Plan

Exhibit 4-2

Walnut Grove Residential Project

N W E S

0 30 60 120 Feet

PSOMAS

(11/11/2020 MMD) R:\Projects\LEW\3LEW001200\Graphics\MND\ex_Tree_Inventory.pdf

D:\Projects\LewisOp\3LEW001200\GRAPHICS\MND\ex_Tree_Inventory_20201111.ai

and does not have a surface hydrologic connection to downstream "waters of the United States." Therefore, regulatory approvals from the CDFW, RWQCB, or USACE would not be required for implementation of the Project (ELMT Consulting 2018). There would be no impact, and no mitigation is 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. The Project site is developed and is surrounded by residential uses on two sides, a roadway on one side, and commercial uses on the other side. The Project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed Project would not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area (ELMT Consulting 2018). The Project would not affect the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, as the Project is part of none. Also, there are no native wildlife nursery sites on or near the site.

Due to the presence of trees and vegetation on the Project site, there is the potential for birds protected by the Federal Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code to nest at the site. The MBTA protects common and special status migratory birds and their nests and eggs. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 Code of Federal Regulations [CFR] Section 10.13, as amended). Since the 1970s, the MBTA has been interpreted to prohibit the accidental or "incidental" take of migratory birds. However, in December 2017, the acting Solicitor of the Department of the Interior issued a new memorandum disclaiming the interpretation of the MBTA as prohibiting incidental take of migratory birds (DOI 2017). In response to the federal changes in interpretation of the MBTA, the CDFW and the California Attorney General have issued an advisory affirming California's protection for migratory birds (CDFW and Attorney General 2018).

Multiple sections of California Fish and Game Code provide protection for nesting birds and raptors. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically addresses raptors (i.e., birds of prey in the orders Falconiformes and Strigiformes) and makes it unlawful to take, possess, or destroy these birds or their nest or eggs. Section 3513 prohibits the take or possession of migratory non-game birds or any part of such bird, as designated by the MBTA.

If demolition and site clearing activities occur during the nesting season, active bird nests on the site may be disturbed or destroyed by the proposed Project, resulting in a significant impact. Therefore, MM BIO-1 is recommended to avoid impacts to nesting birds and their fledglings.

Upon completion of construction and landscaping activities on the site, newly planted trees and landscaping would provide nesting habitat for migratory birds. Therefore, impacts to migratory birds may occur during the construction phase but would be less than significant with implementation of MM BIO-1.

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

Less than Significant Impact. On-site trees and vegetation would be removed and replaced by a variety of trees, vines, shrubs and groundcovers. The landscape plan would comply with Chapter 26, Article XIV, Division 1, Water Efficient Landscaping, of the West Covina Municipal Code, as reviewed and approved by the City of West Covina. As shown on Exhibit 4-2, Existing Tree Inventory Plan, the Project site has five heritage trees and 13 significant trees, as defined by the City. The heritage trees onsite consist of five coast live oaks (*Querus Agrifolia*) that are 6 inches or greater in diameter. The significant trees onsite consist of trees 12 inches or greater in diameter, including: one mulberry tree (*Morus Spp.*), two maple trees (Acer Spp.), one carrotwood tree (*Cupaniopsis Anacardioides*), two bottle brush trees (Callistemon Viminalis), one (sick) California ash tree (*Fraxinus Dipetala*), one jacaranda tree (*Jacaranda Mimosifolia*), and 4 dead trees. These trees would be removed as part of the Project. The removal of these trees would require a permit to remove trees, as oak trees are native to California and are considered heritage trees. Therefore, the Project would be subject to Chapter 26, Article VI, Division 9, Preservation, Protection, and Removal of Trees, of the West Covina Municipal Code (RR BIO-1). The Project would not conflict with City regulations in this regard. Impacts would be less than significant and, no mitigation is required.

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

No Impact. The proposed Project site is in a highly urbanized region and not within any established Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved type of habitat conservation plan. In addition, there are no HCP or NCCP areas within two miles of the Project site. Therefore, the proposed Project would not have any significant impacts in this regard, and no mitigation is required.

Regulatory Requirements

RR BIO-1 The proposed on-site and off-site trees shall be planted, preserved, removed, replaced and/or maintained in accordance with Chapter 26, Article XIV, Division 1, Water Efficient Landscaping, and Chapter 26, Article VI, Division 9, Preservation, Protection and Removal of Trees, of the West Covina Municipal Code.

Mitigation Measures

MM BIO-1 Prior to the issuance of any grading permits, the Community Development Director or designee shall verify that the following requirements for nesting birds and preconstruction survey are completed by the Project Applicant:

- The start of demolition and site-preparation activities shall be scheduled outside of the bird nesting and breeding season (typically March 1 through August 15). If demolition or site-preparation activities start during the nesting season, a qualified Biologist shall conduct a nesting bird survey in

potential bird nesting areas within 200 feet of any proposed disturbance. The survey shall be conducted no more than three days prior to the start of ground disturbance activities (i.e., grubbing or grading).

- If active nests of bird species protected by the Migratory Bird Treaty Act (MBTA) and/or the California Fish and Game Code (which, together, apply to all native nesting bird species) are present in the impact area or within 200 feet of the impact area, a temporary buffer fence shall be erected a minimum of 200 feet around the nest site. This temporary buffer may be greater or lesser depending on the bird species and type of disturbance, as determined by the Biologist.
- Clearing and/or construction within temporarily fenced areas shall be postponed or halted until juveniles have fledged from the nest and there is no evidence of a second nesting attempt. The Biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts on these nests will occur.

4.5 CULTURAL RESOURCES

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

This analysis used the results of the West Covina General Plan EIR (Rincon Consultants, Inc 2016) and a historic and archaeological record search conducted by Psomas on August 25, 2020 at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton. The SCCIC houses records of the California Historical Resources Information System (CHRIS) for Los Angeles, Orange, Ventura, and San Bernardino Counties. The records search included a 0.8-kilometer (0.5-mile) radius around the Project site.

Existing Setting

The site is located at 1651 East Rowland Avenue, north of East Rowland Avenue and west of North Azusa Avenue. The site is currently developed with the former Tri-Community Adult School-Pioneer Center, which moved to a new location in Covina, California.

Access to the site is primarily from East Rowland Avenue, and existing North Eileen Street terminates in a cul-de-sac within the property along the northern boundary of the site. All existing structures have been closed and will be demolished to accommodate the proposed development. The existing structures located on the campus are comprised of nine administrate buildings and classrooms in the southern portion; surface parking lots in the southeastern and in northeastern portions; three storage sheds, a paved play area, and an athletic field in the western and northwestern portions of the Project site. Based on a review of historic aerials (1948-2016) (NetrOnline 2020), the campus was constructed in the early 1960s. Prior to the 1960s, the site was used for agricultural uses.

The SCCIC, located on the campus of California State University, Fullerton, houses records of the California Historical Resources Information System (CHRIS) for Orange, Los Angeles, San Bernardino, and Ventura Counties. On August 25, 2020, Psomas completed a record search for the Project site, which included a 0.8-kilometer (½-mile) radius around the site. The purpose of the literature search was to identify prehistoric or historic archaeological sites or historic buildings and structures, previously recorded within and around the Project site.

The SCCIC record search identified four prior cultural resources studies within the ½-mile search radius that were initiated due to planned urban and residential developments, utilities projects, and academic pursuits. One study, LA-07097, contained a portion of the Project site as part of a survey to assess the area as a potential cellular site. A second cellular site study, LA-03441, was

conducted 600 feet east of the Project site. Additionally, an archaeological survey, LA-02872, and a historic property survey, LA-10190, were conducted 0.45 miles south of the Project site.

The records search also identified three previously recorded cultural resources within the ½ -mile search radius of the Project site. The recorded resources include two historic districts and one historic structure. The record search did not identify any prehistoric sites within a ½-mile from the Project site.

The Mojave Road (P-19-187085) is located 0.45 miles north of the Project site and consists of a historic road that connected the U.S. Army Headquarters for Southern California and Arizona Territory at Wilmington, California with Fort Mojave, Arizona. The historic road was registered as a Historical Landmark and deemed significant based on its continued use throughout prehistoric and historic periods. The road was used by Native Americans as a trade route; the federal government as a supply and mail route, freight, and emigrant wagon route; and more recently as a recreational trail.

The two historic districts are located 0.3 miles south of the Project site. Tract #16472 (P-19-188957) consists of 286 single story, single family dwellings built on average sized lots in a simple grid pattern. The tract is bounded by Workman Avenue to the north, Lark Ellen Avenue to the west, Azusa Avenue to the east, and Interstate 10 (I-10) to the south. There are four streets within the tract, Fleetwell Avenue, Mardina Street, Shamwood Street, and Idahome Street. However, the majority of the houses within the district have had alterations that range from window replacement and altered fenestration, room additions, patio enclosures, and some alterations to the primary elevations by way of exterior siding changes, and entry reconfigurations. Thus, Tract #16472 retains only a moderate degree of integrity. Due to the lack of architectural or historical distinction, the properties do not appear to be eligible for listing in the National Register of Historic Places or considered significant in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines.

Tract #17547 (P-19-188965) consists of 147 parcels made up mostly of single-story single-family dwellings built on average sized lots. The tract is a modified grid plan bounded by Garvey Avenue to the south, Workman Avenue to the north, Hollenbeck Avenue to the east, and Baymar Avenue to the west. However, the majority of the houses within the district have had significant alterations that range from window replacement and altered fenestration, room additions, patio enclosures, and some alterations to the primary elevations by way of exterior siding changes, and entry reconfigurations. Thus, Tract #17547 does not retain its original integrity. Due to the lack of architectural or historical distinction, the properties do not appear to be eligible for listing in the National Register of Historic Places or considered significant in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines.

Impact Analysis

Would the Project:

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

Less than Significant Impact. The SCCIC records searches identified three previously recorded cultural resources within the ½ -mile search radius of the Project site. No Historical resources

were identified on the Project site. The recorded resources include two historic districts and one historic road. The Mojave Road (P-19-187085) is located 0.45 miles north of the Project site and consists of a historic road that connected the U.S. Army Headquarters for Southern California and Arizona Territory at Wilmington, California with Fort Mojave, Arizona. Tract #16472 (P-19-188957) is located 0.3 miles south of the Project site and consists of 286 single story, single family dwellings built on average sized lots in a simple grid pattern. Tract #17547 (P-19-188965) is located 0.3 miles south of the Project site and consists of 147 parcels made up mostly of single-story single-family dwellings built on average sized lots. Of these three resources, only Mojave Road (P-19-187085) is considered significant. However, due to the distance between the Project site and Mojave Road, the Project would not have any direct or indirect impacts to Mojave Road. Thus, the Project's impacts are considered less than significant, and no mitigation is required.

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

Less than Significant Impact with Mitigation. Based on the searches conducted, no archaeological resources were discovered on the Project site or within the ½ -mile search radius of the site. However, there is a possibility that buried historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the Project. To make sure no significant impacts would result, MM CUL-1 is proposed and calls for a qualified Archaeologist to monitor earth-moving activities during construction and sets procedures to follow in the event of the discovery of archaeological resources. Implementation of MM CUL-1 would reduce the potential for the destruction of any significant archaeological resources. Therefore, potential impacts pertaining to adverse change in the significant of an archaeological resource would be less than significant with implementation of mitigation.

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

Less than Significant Impact. There is no indication that human remains are present within the Project site, and the SCCIC records search does not indicate evidence of human remains within the ½ -mile search radius of the site. However, construction activities may unearth previously undiscovered human remains.

In compliance with State and federal regulations, if human remains are encountered during excavation activities, all work shall halt at the site and or any nearby areas reasonably suspected to overlie adjacent remains, and the County Coroner shall be notified (RR CUL-1). The Coroner shall determine whether the remains are of forensic interest within two working days of receiving notification. If the Coroner, with the aid of the qualified archaeologist, determines that the remains are prehistoric, the Coroner shall contact the NAHC within 24 hours of the determination. The NAHC shall be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the California Public Resources Code. Compliance with RR CUL-1 would ensure that impacts on human remains would be less than significant. No mitigation is required.

Regulatory Requirements

RR CUL-1 If human remains are encountered during any Project-related ground-disturbing activities, Section 7050.5 of the *California Health and Safety Code* states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition of the materials pursuant to Section 5097.98 of the *California Public Resources Code.* The provisions of Section 15064.5 of the California Environmental Quality Act Guidelines shall also be followed. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC). The NAHC will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. These requirements shall be included as notes on the contractor specification and verified by the Community Development Department, prior to issuance of grading permits. This measure shall be implemented to the satisfaction of the City in consultation with the County Coroner.

Mitigation Measures

MM CUL-1 A qualified archaeologist (the "Project Archaeologist") shall be retained prior to the start of grading for Project-related construction. The Project Archaeologist shall monitor all ground-disturbing activities within the areas of native soil (i.e., below existing areas of artificial fill from previous construction). If archaeological or historical resources are encountered during implementation of any phase of the Project, the Project Archaeologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity of the find in order to make an evaluation of the find.

4.6 ENERGY

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

Impact Analysis

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. Section 21100(b)(3) of the *California Public Resources Code* and Appendix F to the State CEQA Guidelines require a discussion of potential energy impacts of proposed projects. Appendix F states:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Southern California Edison (SCE) and the Southern California Gas Company (SCGC) are utility companies that currently provide and would continue to provide electrical and natural gas services to the Project site. Compliance with energy efficiency and conservation policies and regulations is discussed in this section.

The City of West Covina has adopted an Energy Action Plan (EAP) to address environmental and fiscal impacts associated with energy consumption. The EAP was developed to guide the City toward attainable conservation goals that would reduce the impact of GHG emissions within the community. These conservation goals include:

- Educating the public about energy saving techniques and programs.
- Promoting and creating energy conservation opportunities and programs.
- Installing environmentally benign, renewable and reliable energy facilities.
- Participating in alliances with local businesses and with other agencies.

- Pursuing and performing local and higher funding opportunities.
- Coordinating other City policies, programs and ordinances to become compatible with Sustainable Community goals.

The State of California has also adopted efficiency design standards within the Title 24 Building Standards and CALGreen requirements (RR ENE-1). Title 24 of the California Code of Regulations (CCR, specifically, Part 6) is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and non-residential buildings. The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen Code, contains mandatory requirements for new residential and nonresidential buildings throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The regulation of energy efficiency for residential and non-residential structures is established by the CEC and its California Energy Code. Starting on January 1, 2020, all new single-family residential uses are required to offset their annual electrical demand through the use of energy efficiency and solar photovoltaic panels. These new homes are expected to reduce energy use by more than 50 percent. The proposed Project would be consistent with RR ENE-1.

Construction

Project construction would require the use of construction equipment for grading and building activities. All off-road construction equipment is assumed to use diesel fuel. Construction also includes the vehicles of construction workers and vendors traveling to and from the Project site.

Off-road construction equipment use was calculated from the equipment data (mix, hours per day, horsepower, load factor, and days per phase) provided in the CalEEMod construction output files included in Appendix C of this IS/MND. The total horsepower hours for the Project was then multiplied by fuel usage estimates per hours of construction activities included in the Off-Road Model.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using CARB's EMissions FACtor (EMFAC) 2017 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks.

As shown in Table 4-9, a total of 16,570 gallons of gasoline and 15,739 gallons of diesel fuel is estimated to be consumed during Project construction.

TABLE 4-9
ENERGY USE DURING CONSTRUCTION

Source	Gasoline - gallons	Diesel Fuel - gallons
Off-road Construction Equipment	0	11,344
Worker commute	15,054	60
Vendors	1,511	21
On-road haul	5	4,314
Totals	**16,570**	**15,739**
Sources: Psomas 2020 based on data from CalEEMod, OffRoad and EMFAC2017. Energy data can be found in Appendix C of this IS/MND.		

Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. The Project would also implement best management practices such as requiring equipment to be properly maintained and minimize idling and where feasible, use electric or clean alternative fuel equipment. Furthermore, there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Energy used in the construction of the Project would enable the development of buildings that meet the latest energy efficiency standards as detailed in California's Title 24 building standards. Therefore, the proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption.

Operations

The proposed Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The Project site is currently developed with school uses that complied with older less stringent building energy efficiency standards. The development of the Project is required to comply with the latest (2019) building energy efficiency standards adopted by the State of California. The estimated energy consumption attributable to the Project is shown in Table 4-10 below.

TABLE 4-10
ENERGY USE DURING OPERATIONS

Land Use	Gasoline	Diesel	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Project Land Uses	134,907	22,288	3,393,560	1,019,281
Sources: Psomas 2020. Energy data can be found in Appendix C of this IS/MND.				

The CEC anticipates the new 2019 Building Energy Efficiency Standards would result in a reduction of energy use by more than 50 percent as compared to previous energy standards (CEC 2018). Therefore, the new buildings would be more energy efficient than the existing buildings to be demolished. In terms of whether the operations phase would result in a wasteful, inefficient, or unnecessary consumption of energy resources, during Project operation, the Project would add new energy efficient units to the housing inventory within Los Angeles County. Therefore, the proposed Project would not result in an inefficient, wasteful, or

unnecessary consumption of energy. There would be a less than significant impact, and no mitigation is required.

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

No Impact. The Project would be required to comply with the State of California's Title 24 Building Standards and Title 24 Energy Efficiency Standards (RR ENE-1). As discussed previously, the latest building standards would incorporate the CEC's building energy efficiency standards, which would reduce energy consumption through the incorporation of solar photovoltaic panels for the proposed single-family residential units as well as other energy efficiency requirements. Because the Project complies with the latest energy efficiency standards; provides additional housing capacity within the City; and incorporates renewable energy, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Regulatory Requirements

RR ENE-1 The Project must be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6) and the Title 24 Green Building Standards Code (CALGreen), (CCR, Title 24, Part 11). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods.

Mitigation Measures

Project implementation would not result in significant impacts related to energy; therefore, no mitigation measures are required.

4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒
ii) Strong seismic groundshaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Impact Analysis

A Report of Geotechnical Investigation (Geotechnical Report) has been prepared by Leighton and Associates, Inc (April 2020) for the proposed Project to assess the geotechnical conditions on the site and provide structural design recommendations for the construction of the Project. The findings of the Geotechnical Report are summarized below, and the report is included as Appendix D to this IS/MND.

Would the Project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. Ground rupture occurs when movement on a fault breaks through the surface. The State of California has established Earthquake Fault Zones for the purpose of mitigating the hazard of fault rupture by prohibiting the location of most human occupancy structures across the traces of active faults. The Project site is outside of an Earthquake Fault Zone and Alquist-Priolo Earthquake Fault Zoning Map. Therefore, per the Geotechnical Report, the potential for surface rupture onsite is low. Therefore, there is no impact associated with surface rupture from an Alquist-Priolo Fault Zone.

ii) Strong seismic groundshaking?

Less than Significant Impact with Mitigation. The City of West Covina and the rest of California are located within a seismically active region. There are no known active or potentially active faults on the Project site. However, the Project site is located within the northeastern portion of the Los Angeles Basin within the Peninsular Ranges geomorphic province of California. Several faults have been mapped in the region, including the Indian Hills fault (approximately 1 mile east of the site), the Walnut Creek fault (approximately 1.6 miles southeast of the site), and the Sierra Madre Fault Zone (approximately 3.4 miles north of the site). It is anticipated that because the Project site is located within a seismically active region, the Project site would experience ground shaking during the life of the Project.

In order to reduce the effects of ground shaking, the Project should be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a and the 2019 California Building Code (RR GEO-1). All buildings and other structures constructed as part of the proposed Project would be designed in accordance with applicable requirements of the CBC in effect at the time of grading plan submittal, and any applicable building and seismic codes in effect at the time the grading plans are submitted. The Geotechnical Report includes 2019 CBC Seismic Design Parameters in its evaluation (MM GEO-1) and concludes that the proposed Project is feasible from a geotechnical standpoint, with incorporation of the Geotechnical Report recommendations into the design and construction of the Project and compliance with applicable building and seismic codes. Therefore, there would be a less than significant impact from strong seismic groundshaking with incorporation of MM GEO-1.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction of soils may be caused by cyclic loading such as that imposed by ground shaking during earthquakes. The increase in pore pressure results in a loss of strength, and the soil then can undergo both horizontal and vertical movements, depending on the site conditions. Liquefaction is generally known to occur in loose (low-density), saturated, relatively clean, fine- to medium-grained cohesionless soils. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

As indicated in the Geotechnical Report (Appendix D), based on a review of the State of California Official Map of Earthquake Zones of Required Investigation for the Baldwin Park Quadrangle, the site is not located within a Zone of Required Investigation for Liquefaction. Additionally, with the absence of shallow groundwater, the potential for liquefaction to occur onsite is low. Therefore, the Project would not result in a substantial adverse effect, including the risk of loss, injury, or

death, due to seismic-related ground failure, including liquefaction. No impact would occur, and no mitigation is required.

iv) Landslides?

No Impact. The Project site and surrounding area are located in a generally flat, urbanized portion of the City, with the ground elevations on the Project site at approximately 450 feet above mean sea level (msl) (USGS 2020). The California Department of Conservation (DOC) does not designate the site and the surrounding area as Earthquake-Induced Landslide Zones, which include areas where historical occurrence of landslide movement has occurred or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacement (DOC 2020). Therefore, the Project would not result in a substantial adverse effect, including the risk of loss, injury, or death, due to landslides. No impact would occur, and no mitigation is required.

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

Less than Significant Impact. The Project site is fully developed with administrative building, school uses, surface parking lots, and associated site improvements and has a relatively flat topography. During demolition and construction activities, temporary soil erosion may occur due to soil disturbance and the removal of buildings and paved surfaces. In addition, soil erosion due to rainfall and wind may occur if unprotected soils are exposed during construction. The Phase I Environmental Site Assessment (ESA) for the site states that the underlying soils consists of alluvial soil consisting of unconsolidated gravel, sand, and silt.

As the Project site has over one acre of land area, it would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities or coverage under the NPDES Construction General Permit. The Construction General Permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance best management practices (BMPs) to reduce the potential for soil and wind erosion during construction activities (see RR HYD-1, in Section 4.10). Further, the proposed Project must comply with the City's grading ordinance, which requires preparation of an erosion control plan for City approval prior to issuance of a grading permit (see RR GEO-2). With compliance with these regulations, construction-related soil erosion would be less than significant, and no mitigation is required.

As indicated in the Preliminary Hydrology Study (Appendix F), the Project site is currently 53 percent impervious. Following construction of the proposed Project, the site would be 80 percent impervious (DKP Engineering 2020). There would be minimal areas of exposed soils following completion of the proposed Project where erosion could occur. Site improvements and landscaping would also prevent long-term erosion (RR HYD-2). Therefore, operation-related soil erosion would be less than significant, and no mitigation is 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 with Mitigation. As discussed above, the Project site is not located in a potential landslide or a potential liquefaction area. Based on the Geotechnical Report (Appendix D), groundwater was not encountered in the exploratory borings placed on the site during the geotechnical investigation, which drilled to a maximum depth of 51.5 feet below the existing ground surface (bgs). The historical high depth to groundwater is reportedly at approximately 100 to 150 feet bgs at the Project site. In light of the depth of water and low potential for liquefaction as discussed under item (iii), above, lateral spreading also has a low potential of occurrence.

As indicated in the Geotechnical Report, during a strong seismic event, seismically induced settlement (dry dynamic settlement above groundwater) can occur within loose to moderately dense sandy soil due to reduction in volume during or shortly after an earthquake event. The Geotechnical Report performed analyses to estimate the potential for seismically induced settlement and determined that the proposed buildings would not be subject to collapse, nor would they be subject to special design considerations.

As indicated in the Geotechnical Report, the soil expansion is classified as very low to low (Appendix D). Based on the Geotechnical Report, one- to three- story structures proposed for the development may be supported on shallow foundation systems. However, in order to reduce the potential for adverse differential settlement, the underlying subgrade soil must be prepared in such a manner that a uniform response to the applied loads is achieved. Therefore, all artificial fill should be removed to firm native soil. The onsite alluvial soil should be over-excavated a minimum of 6.5 feet bgs or 3 feet bgs, whichever is deeper. This, along with the remaining recommendations, as outlined in the Geotechnical Report (MM GEO-1) and adherence to the City's grading code (RR GEO-1) would reduce the potential for expansion and collapse. The Geotechnical Report concludes that the proposed Project is feasible from a geotechnical standpoint, provided the recommendations in the Geotechnical Report are incorporated into the design and construction of the proposed Project, in its entirety, as required by MM GEO-1. Therefore, potential impacts would be less than significant with mitigation.

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. Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors, and may cause unacceptable settlement or heave of structures, concrete slabs supported on-grade, or pavements supported over these materials. Depending on the extent and location below finished subgrade, these soils could have a detrimental effect on the proposed construction.

As indicated above, based on the field soil classification, as stated in the Geotechnical Report, while the expansion index classified as "low to very low" expansion potential, with recommendations included in the Geotechnical Report (MM GEO-1), impacts would be less than significant.

Additionally, Project construction would be required to comply with 2019 California Building Code (RR GEO-1). Also, the Geotechnical Report concludes that the proposed Project is feasible from a geotechnical standpoint, provided the recommendations in the Geotechnical Report are incorporated into the design and construction of the proposed Project, in its entirety, as required by MM GEO-1. Therefore, Project impacts related to expansive soils would be less than significant with compliance with RR GEO-1 and MM GEO-1.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. There is no evidence of septic tanks or systems, wastewater, drains, sumps, or cisterns at the Project site (Leighton and Associates, Inc. 2020b). The Project would convey sewage through an onsite 8-inch polyvinyl chloride (PVC) sewer line and 4-inch PVC laterals, which would tie into the existing sewer main in East Rowland Avenue. The use of septic tanks or alternative wastewater disposal systems is not proposed by the Project. Therefore, no impact would result, and no mitigation is required.

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

Less than Significant Impact with Mitigation. The site is located in the northeastern portion of the Los Angeles Basin within the Peninsular Ranges geomorphic province of California. The Peninsular Ranges are characterized by elongate structural blocks bounded by northwest to west-northwest trending fault zones. Several of these faults terminate at or merge with the east-west trending thrust faults at the southern edge of the Traverse Ranges geomorphic province to the north of the site. The site is underlain by alluvial soil deposits eroded from surrounding mountains and deposited in the site vicinity. However, previous grading to accommodate the former school has resulted in the placement of artificial fill in the first five feet of soil underlying the current Project site.

This analysis is based on the results of a literature review and records check conducted through the Natural History Museum (LACM) of Los Angeles County, an online search of localities listed on the Paleobiology Database (paleobiodb.org), and a review of geologic maps and aerials of the Project site. The paleontological records search was completed on August 28, 2020. The record search included a thorough search of the LACM paleontology collection records for the locality and specimen data for the Project site and surrounding area. The record search did not identify any fossil localities within the site. However, five localities were located nearby from the same sedimentary deposits that occurs in the Project site, either at the surface or at depth. The Project site is underlain by Holocene-age older alluvial soil deposits, which could contain significant fossils. However, earthmoving activities for the proposed Project would be isolated within the first five feet of soil. The site history and geotechnical analysis indicates these earthmoving activities would take place in previously disturbed soils, which consist of re-deposited alluvial soil and artificial fill. Additionally, based on the PlanWC's Resource Conservation Element, soils and geologic formations within the City have a low potential to contain significant paleontological resources.

Nevertheless, while paleontological resources are not anticipated to be discovered during excavations, if grading activities encounter unknown paleontological resources, implementation

of MM GEO-2 would reduce this potential impact to a less than significant level. Therefore, this impact would be less than significant with mitigation.

Regulatory Requirements

RR GEO-1 The Project shall be designed and constructed in compliance with the 2019 California Building Code (CBC) Design Parameters or the most current CBC adopted in the City's Municipal Code.

RR GEO-2 Prior to issuance of a grading permit, the Project Applicant shall prepare an erosion control plan in compliance with City's Grading Ordinance, as approved by the City.

Mitigation Measures

MM GEO-1 Prior to issuance of a grading permit, site preparation and building design specifications shall follow the recommendations in the *Report of Geotechnical Investigation, Former Pioneer Elementary School, 1651 East Rowland Avenue, City of West Covina, California,* prepared by Leighton and Associates, Inc (dated April 17, 2020) and additional future site-specific, design-level geotechnical investigations of the Project. Based on the Geotechnical Report, recommendations to be included in the Project specifications pertain to General Earthwork and Grading, Foundations, Slabs-On-Grade, Seismic Design Parameters, Lateral Earth Pressures, Cement Type and Corrosion Protection, Pavement Design, Infiltration, Temporary Excavations, Surface Drainage, and Additional Geotechnical Services.

MM GEO-2 In the event paleontological resources are encountered during construction, ground-disturbing activity shall cease. It is recommended that a Qualified Paleontologist be retained by the Applicant to examine the materials encountered, assess the nature and extent of the find, and recommend a course of action to further investigate and protect or recover and salvage those resources that have been encountered. Criteria for discard of specific fossil specimens shall be made explicit. If a Qualified Paleontologist determines that impacts to a sample containing significant paleontological resources cannot be avoided by Project planning, then recovery may be applied. Actions may include recovering a sample of the fossiliferous material prior to construction; monitoring work and halting construction if an important fossil needs to be recovered; and/or cleaning, identifying, and cataloging specimens for curation and research purposes. The cost associated with recovery, salvage, and treatment shall be borne by the Applicant. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the Qualified Professional. Resources shall be identified and curated into an established accredited professional repository. The Qualified Professional shall have a repository agreement in hand prior to initiating recovery of the resource.

4.8 GREENHOUSE GAS EMISSIONS

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

Impact Analysis

Climate change refers to any significant change in measures of climate (e.g., average temperature, precipitation, or wind patterns) over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities are associated with global warming.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, atmospheric ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry, as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, atmospheric ozone, or aerosols is provided.

Regulatory Background

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

The principal overall State plan and policy adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 recognizes that California is the source of substantial amounts of GHG emissions. The statute states the following:

> Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, codifying the goal of EO S-3-05.

CARB approved a Climate Change Scoping Plan as required by AB 32 in 2008; this plan is required to be updated every five years. The Climate Change Scoping Plan proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG-reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation regulation to fund the program. On February 10, 2014, CARB released the Draft Proposed First Update to the Climate Change Scoping Plan (CARB 2014). The board approved the final First Update to the Climate Change Scoping Plan on May 22, 2014. The first update describes California's progress towards AB 32 goals, stating that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). The latest update occurred in January 2017 and incorporates the 40 percent reduction to 1990 emissions levels by 2030.

The Sustainable Communities and Climate Protection Act of 2008, Senate Bill (SB) 375, established a process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 required SCAG to incorporate a "sustainable communities strategy" (SCS) into its regional transportation plans (RTPs) that will achieve GHG emission reduction targets though several measures, including land use decisions. SCAG's SCS is included in the SCAG 2016–2040 RTP/SCS (SCAG 2016). The goals and policies of the RTP/SCS that reduce vehicle miles traveled (VMT) focus on transportation and land use planning that include building infill projects; locating residents closer to where they work and play; and designing communities so there is access to high quality transit service.

On April 29, 2015, Governor Brown signed EO B-30-15, which ordered an interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. Five key goals for reducing GHG emissions through 2030 include (1) increasing renewable electricity to 50 percent; (2) doubling the energy efficiency savings achieved in existing buildings and making heating fuels cleaner; (3) reducing petroleum use in cars and trucks by up to 50 percent; (4) reducing emissions of short-lived climate pollutants; and (5) managing farms, rangelands, forests and wetlands to increasingly store carbon. EO B-30-15 also directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

On September 8, 2016, the Governor signed Senate Bill 32 (SB 32) to codify the GHG reduction goals of EO B-30-15, requiring the State to reduce GHG emissions by 40 percent below 1990 levels by 2030 (Health and Safety Code Section 38566). As stated above, this goal is expected to keep the State on track to meeting the goal set by EO S-3-05 of reducing GHG emissions by 80 percent below 1990 levels by 2050.

AB 197 was signed at the same time to ensure that the SB 32 goals are met by requiring CARB to provide annual reports of GHGs, criteria pollutants, and TACs by facility, City and sub-county level, and sector for stationary sources and at the County level for mobile sources. It also requires the CARB to prioritize specified emission reduction rules and regulations and to identify specified information for emission reduction measures (e.g., alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive) when updating the Scoping Plan.

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of EO B-30-15. The objectives of SB 350 are as follows:

1. To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation

The text of SB 350 sets a December 31, 2030, target for 50 percent of electricity to be generated from renewable sources. SB 350 also requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. Additionally, SB 350 sets requirements for large utilities to develop and submit integrated resources plans (IRPs), which detail how utilities would meet their customers' resource needs, reduce GHG emissions, and integrate clean energy resources (CEC 2020a).

On September 10, 2018, Governor Brown signed SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 requires renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers and 100 percent of electricity procured to serve state agencies by December 31, 2045. This policy requires the transition to zero-carbon electric systems that do not cause contributions to increase of GHG emissions elsewhere in the western electricity grid (CEC 2020b). SB 100 also creates new standards for the Renewable Portfolio Standard (RPS) goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030.

Further, on September 10, 2018, Governor Brown also signed California EO B-55-18, which sets a new statewide goal of carbon neutrality as soon as possible, and no later than 2045 and achieve net negative emissions thereafter. EO B-55-18 was added to the existing Statewide targets of reducing GHG emissions, including the targets previously established by Governor Brown of reducing emissions to 40 percent below 1990 levels by 2030 (EO B-30-15 and SB 32), and by Governor Schwarzenegger of reducing emissions to 80 percent below 1990 levels by 2040 (EO S-3-05).

The City of West Covina does not currently have a Climate Action Plan; however, the City has adopted an Energy Action Plan (EAP). Therefore, the Project is evaluated against the City's EAP.

The purpose of the EAP is to "guide the City of West Covina toward attainable conservation goals that may also significantly reduce the impact of greenhouse gas emissions within the community" (City of West Covina 2011). The goals of the City's EAP include: educating the public about energy-saving techniques and programs; promoting and creating energy conservation opportunities and programs; installing environmentally benign, renewable, and reliable energy facilities; participating in alliances with local businesses and with other agencies; pursuing and performing local and higher funding opportunities; and coordinating other City policies, programs, and ordinances to become compatible with Sustainable Community goals.

SCAQMD Significance Criteria

On December 5, 2008, the SCAQMD Governing Board presented the staff proposal for a tiered threshold approach wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption, Tier 2 determines consistency with GHG reduction plans, and Tier 3 proposes a numerical screening value as a threshold. At their September 28, 2010, meeting, the Working Group suggested a Tier 3 threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO2e) per year for all land use types (SCAQMD 2010). Tier 4 determines if the project meets performance standards. Tier 4 has three options: Option 1—percent emission reduction target; Option 2—early implementation of applicable measures, and Option 3—sector-based standard. Tier 5 determines mitigation for CEQA offsets.

In the absence of adopted thresholds, the Tier 3 standard is used for this analysis (SCAQMD 2008). The development of project-level thresholds in accordance with CEQA is an ongoing effort at the State, Regional, and County levels, and significance thresholds may differ for future projects based on new or additional data and information that may be available at that time for consideration. The City of West Covina has not officially adopted any GHG CEQA significance threshold. The City defers to assessment methods and significance thresholds developed by the SCAQMD. This impact analysis evaluates consistency with regulatory programs designed to reduce GHG emissions and that contribute to the achievement of AB 32's and SB 32's goals as the primary significance criterion. In addition, this impact analysis also evaluates the Project's estimated emissions compared to the Tier 3 threshold (as discussed above) for impacts related to GHG emissions proposed by staff of the SCAQMD, but not adopted by the SCAQMD Board.

Would the Project:

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

Less than Significant Impact. In developing methods for GHG impact analyses, there have been suggestions from local air pollution control districts of quantitative thresholds, often referred to as screening levels, which define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the SCAQMD, the City of West Covina, nor the County of Los Angeles has adopted a significance threshold for GHG emissions from non-industrial development projects. Consequently, pursuant to the discretion afforded by Sections 15064.4(a) and 15064.4(b) of the State CEQA Guidelines, the impact of the Project's GHG emissions are assessed based on the methodologies proposed by SCAQMD's GHG CEQA Significance Threshold Working Group, as described above.

Based on the proposed construction activities described above, the principal source of construction related GHG emissions would be from internal combustion engines of construction equipment, on-road construction vehicles, and workers' commuting vehicles. GHG emissions from construction activities were obtained from the CalEEMod model, described above. The estimated construction GHG emissions for the proposed Project would be 549 MTCO2e, as shown in Table 4-11, Estimated Greenhouse Gas Emissions from Construction.

TABLE 4-11
ESTIMATED GREENHOUSE GAS EMISSIONS FROM CONSTRUCTION

Year	Emissions ($MTCO_2e$)
2021	549
Total	**549**

$MTCO_2e$: metric tons of carbon dioxide equivalent

Notes:
- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data.

Operational GHG emissions would come primarily from vehicle trips; other sources include electricity and water consumption; natural gas for space and water heating; and gasoline-powered landscaping and maintenance equipment. Table 4-12, Estimated Annual Greenhouse Gas Emissions from Project Operation, shows the annual GHG emissions from proposed Project's operations.

TABLE 4-12
ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION

Source	Emissions ($MTCO_2e$/yr)
Area	35
Energy	508
Mobile	1,497
Waste	30
Water	81
Total Operational Emissions	**2,151**

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year

Notes:
- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data.

Because impacts from construction activities occur over a relatively short period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. The SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). Therefore, construction and operational emissions

are combined by amortizing the construction and operations over an assumed 30-year project lifetime. This combination is shown in Table 4-13, Estimated Total Project Annual Greenhouse Gas Emissions, using the proposed Project's amortized construction and operational emissions.

TABLE 4-13
ESTIMATED TOTAL PROJECT ANNUAL
GREENHOUSE GAS EMISSIONS

Source	Emissions ($MTCO_2e/yr^a$)
Construction (Amortized)	18[a]
Operations (Table 14)	2,151
Total[b]	**2,170**
SCAQMD-Recommended Threshold (Tier 3)	**3,000**
Exceeds Threshold?	**No**

$MTCO_2e/yr$: metric tons of carbon dioxide equivalent per year

[a] Total derived by dividing construction emissions (see Table 4-11) by 30.
[b] Total annual emissions are the sum of amortized construction emissions and operational emissions.

It is noted that there are no established applicable quantitative federal, State, regional, or local CEQA significance criteria for GHG emissions for non-industrial projects in the SoCAB. The SCAQMD has proposed, but not adopted, a threshold of 3,000 MTCO2e per year for non-industrial land use projects. As shown, the estimated GHG emissions from the Project would be less than this suggested threshold. The impact would be less than significant, and no mitigation is required.

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

Less than Significant Impact. As discussed previously, the City of West Covina has adopted standards for the purpose of reducing energy consumption, which would result in a reduction in GHG emissions. The State policy and standards adopted for the purpose of reducing GHG emissions that are applicable to the proposed Project are EO S-3-05, AB 32, the California Global Warming Solutions Act of 2006, and SB 32. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020 to 80 percent below 1990 levels by 2050, and for SB 32, to 40 percent below 1990 levels by 2030. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the statewide level, and compliance at a project level is not addressed.

As stated above, the City adopted the Energy Action Plan (EAP) to identify the City's long-term strategies and commitment to achieve energy efficiency in the community and in City operations. However, the EAP does not include requirements or standards for implementation of energy reduction to development projects. Table 4-14, below, shows the applicable EAP policies applicable to the Project and the Project's consistency with these policies.

TABLE 4-14
ENERGY ACTION PLAN CONSISTENCY

Energy Action Plan Policy	Project Consistency Analysis
Provide on-line (Internet accessible) guidance and assistance to Homeowners and Builders to make compliance with new Title 24 energy requirements as effective and efficient as possible.	**Consistent**. The Project site would be equipped with internet accessibility, which would provide builders with the ability to effectively and efficiently meet Title 24 energy requirements.
Modify the City's lighting standards to encourage the application of "Dark Skies" goals (discourage excessive and spill-over lighting).	**Consistent**. The Project would comply with the City's lighting ordinance (Section 26-570) for non-residential buildings.
Promote energy and water conservation design features in all major renovation and development projects.	**Consistent**. The Project is designed to meet current Title 24 Standards at the time of Building Permit Review. The regulation of energy efficiency for residential and non-residential structures is established by the CEC and its California Energy Code. Starting on January 1, 2020, all new single-family residential uses will be required to offset their annual electrical demand through the use of energy efficiency and solar photovoltaic panels. These new homes are expected to reduce energy use by more than 50 percent. The proposed Project would be consistent with these objective and policies.
Encourage the efficient use of water and reduce urban runoff through the use of natural drainage, drought tolerant landscaping, and efficient irrigation systems in major renovation and new development projects. Recommend the incorporation of these practices within the approval processes of other local and regional departments and jurisdictions.	**Consistent.** The Project would meet current California Green Building Standards Code (CALGreen Code) for indoor water use.
Source: City of West Covina 2011.	

As shown in Table 4-14, the Project is consistent with applicable EAP policies. The Project would be built to meet the current applicable Title 24 Energy Efficiency Standards for Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6) and the applicable CALGreen Code (24 CCR 11). The proposed Project would be developed in compliance with the requirements of these regulations.

The regulations, plans, and polices adopted for the purpose of reducing GHG emissions that are directly applicable to the Project include the 2019 Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings and the Title 24 California Green Building Standards Code (CALGreen) (RR ENE-1). The 2019 Title 24 Energy Efficiency Standards for residential buildings include requirements such as installation of solar photovoltaic systems, including smart inverters with optional battery storage. Additionally, residential uses are required to have updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); ventilation requirements; and lighting requirements. Under the 2019 Standards, once factoring in rooftop solar electricity generation, single family units built with the 2019 standards would use about 53 percent less energy than those built under the 2016 Title 24 standards (CEC 2018). Single family homes per CALGreen requirements include reductions in indoor and outdoor water use, diversion of construction and demolition waste, inclusion of electric vehicle charging spaces or designated spaces capable of supporting future charging stations. These codes are enforced by the City, and adherence to standard requirements for construction and operations would ensure that the Project would comply with both regulations.

Therefore, through implementation of the State regulations mentioned above, the Project would be consistent with the City's Energy Action Plan.

Overall, the Project is an infill development project. The Project's uses would result in trip reductions due to the Project site's proximity to nearby commercial uses, which are within walking distance of the Project site. Therefore, the Project would promote pedestrian activity in an area with complementary uses, which would reduce reliance on single-passenger vehicles. The proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact would be less than significant, and no mitigation is required.

Regulatory Requirements

RR ENE-1, in Section 4.6, Energy, would be applicable to this topic.

Mitigation Measures

Project implementation would not result in significant impacts related to GHG emissions; therefore, no mitigation measures are required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

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

Impact Analysis

A Phase I and Limited Phase II Environmental Site Assessment (ESA) was prepared by Leighton and Associates, Inc. in 2020 and is summarized below; the report is included as Appendix E1 to this IS/MND. Additionally, a Limited Asbestos Inspection Report and Lead-Based Paint/Ceramic Tile Inspection Report was prepared for buildings at the Project site by Executive Environmental in 2018. The results of these report are summarized below. The Limited Asbestos Inspection Report and Lead-Based Paint/Ceramic Tile Inspection Report are included as appendices to this IS/MND (Appendices E2 and E3, respectively).

Would the Project:

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

Less than Significant Impact. Demolition and construction activities for the proposed Project would involve the use of chemical substances such as solvents, paints, fuel for equipment, and other potentially hazardous materials. Hazards to the environment or the public would typically occur with the transport, use, storage, or disposal of hazardous materials. Demolition and

construction activities would be relatively short-term and the transport, use, and disposal of hazardous materials as part of these activities would be temporary. The contractor would be required to comply with existing regulations for the transport, use, storage and disposal of hazardous materials to prevent public safety hazards. These regulations include the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act (RCRA), California Hazardous Waste Control Act (HWCA), and California Accidental Release Prevention Program (CalARPP), among others.

Once constructed, the proposed dwelling units would use hazardous materials (e.g., paint, pesticides, cleansers, and solvents) for maintenance activities but any use would be in limited household quantities. The dwelling units would not utilize, store, or generate hazardous materials or wastes in quantities that would pose a significant hazard to the public. Impacts would be less than significant, and no mitigation is 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 into the environment?

Less than Significant Impact. Review of historical aerial photographs indicate the site was used as an orchard from approximately 1927 to 1960, with a road adjacent to the south of the Project site. From 1960 to the present day, the Project site has been occupied by school uses. Prior to 1927, the Project site was vacant.

The Phase I ESA did not identify the presence of previous or current hazardous materials or wastes on the site. No underground or aboveground storage tanks were observed, and no stains, corrosion, drains, sumps, pits, or wells are present on the site. The existing school uses are not occupied. Miscellaneous trash, consisting of abandoned school and office supplies and equipment, was observed in the classroom buildings, the administration building, and the cafeteria. Minor amounts of trash were observed on the exterior of the Project site. According to the Phase I ESA, this debris is not considered a recognized environmental condition (REC) associated with the Project site. Commercial and residential uses near the site do not represent a significant environmental concern due to their distances or case status. No evidence of RECs (either historical or controlled) was found on the site, and no additional assessment was recommended. The Project site is not listed as a facility that handled hazardous materials or generated hazardous wastes.

Adjacent to the site are residential land uses to the north, south, and west, and commercial uses to the north and east. Historically, the adjacent properties were agricultural land. In the mid-1950s, the adjacent properties to the northwest, west, and south were developed for residential use. In the early 1960s, the surrounding properties to the northeast, east, and southeast were developed for commercial use. These uses do not store, use, or dispose of hazardous materials in quantities that may pose hazards to the public. Surrounding properties with environmental concern were not identified in the Phase I ESA.

According to the Limited Phase II ESA, the Project site did not detect concentrations of arsenic, lead, or organochlorine pesticides (OCPs) in excess of the U.S. Environmental Protection Agency (USEPA) Residential Regional Screening Levels (RSLs) or Department of Toxic Substance Control Screening Levels (DTSC-SLs).

Because of the age of the existing uses, asbestos is likely to have been used for construction. As part of the demolition activities, asbestos-containing materials (ACM) would be disturbed and contact with these materials would pose hazards to the construction crew and other persons near the construction site. According to the Limited Asbestos Inspections Report prepared for buildings at the Project site, there are ACM within buildings at the Project site. Additionally, lead-based paint (LBP) was determined to be present within buildings at the Project site. If LBP is encountered, it may also pose hazardous to the construction crew and other persons near the construction site. Demolition, removal, and disposal of ACM and LBP are required to comply with existing regulatory requirements, including the Federal and State Occupational Safety and Health Regulations (OSHA and CalOSHA); SCAQMD Regulation X, Subpart M – National Emission Standards For Asbestos and Rule 1403 – Asbestos Emissions (see RR HAZ-2); and California Code of Regulations Title 8, Section 1532.1 – Lead and Section 1529 – Asbestos (see RR HAZ-1 and RR HAZ-3). Compliance with these regulations would be included on the contractor specifications and verified by the City's Community Development Director, or designee in conjunction with the issuance of the Demolition Permit. Compliance with RR HAZ-1 through RR HAZ-3 would ensure that no impacts pertaining to demolition would occur. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact. Existing schools located within a 0.25-mile radius of the Project site include Global Academy Development (0.09 mile to the east), Traweek Middle School (0.21 mile to the west), and Workman Avenue Elementary School (0.24 mile to the southeast). Other nearby schools, further than a 0.25-mile radius, include: Rowland Avenue Elementary School (0.31 mile to the west), Covina High School (0.33 mile to the west), Grovecenter Elementary School (0.44 mile to the northwest), and Acacia Montessori School (0.59 mile to the west).

There is a potential to expose children at these nearby schools to hazardous substances through accidental releases during demolition and construction activities. However, during demolition, existing hazardous materials and wastes would be removed and disposed in accordance with pertinent regulations, including RR HAZ-1 through RR HAZ-3, as discussed above. During construction, a potential exists for the accidental release or spill of hazardous substances such as gasoline, oil, hydraulic fluid, diesel fuel, or other liquids associated with construction equipment operation and maintenance. However, use of these materials would be in limited quantities as typical during the operation and maintenance of construction equipment and would be conducted in compliance with applicable federal, State, and local regulations. Additionally, the contractor would be required to use standard construction controls and safety procedures, which would avoid and minimize the potential for accidental release or spill of such substances into the environment. With compliance with pertinent regulations (RR HAZ-1 through RR HAZ-3), the level of risk associated with the accidental release of hazardous substances during demolition and construction would be less than significant, and no mitigation is required.

Residential activities associated with occupancy of the proposed dwelling units would be similar to other residential uses surrounding the site and would not generate hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste in quantities that may impact students at schools within 0.25 mile of the site. There would be a less than significant impact, and no mitigation is required.

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

No Impact. According to the Phase I and Limited Phase II ESA and review of the California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List – Site Cleanup (Cortese List) (DTSC 2020), the Project site is not included on a list of hazardous material sites compiled pursuant to California Government Code Section 65962.5. Therefore, the Project does not have the potential to create a significant hazard to the public or the environment due to presence of an existing hazardous materials site identified on the Cortese List. No impact would occur, and no mitigation is required.

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 Project site is not located within two miles of an airport. The nearest public airports are the San Gabriel Valley Airport (formerly El Monte Airport), located 6.87 miles west of the Project site, and the Brackett Field Airport, located 7.26 miles east of the Project site.

West Covina is not within the San Gabriel Valley Airport Influence Area, as defined by the Los Angeles County Airport Land Use Plan (Los Angeles County ALUC 1991). Similarly, West Covina is not within the Brackett Field Airport Influence Area, as defined by the Brackett Field Airport Land Use Compatibility Plan (Los Angeles County ALUC 2015). Thus, the Project would not result in a safety hazard or excessive noise for people residing on the site, as it relates to exposure to airport or aircraft hazards in areas within an airport land use plan or within two miles of a public airport. No impact would occur, and no mitigation is required.

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

Less than Significant Impact. The City of West Covina has a Natural Hazard Mitigation Plan (NHMP) which addresses natural hazards, risks, and mitigation actions for the City. It establishes a framework for proactive local planning for natural hazard mitigation, per the federal Disaster Mitigation Act of 2000. The nearest designated disaster route to the Project site is Azusa Boulevard, which is approximately 340 feet east of the site (City of West Covina 2008). The nearest designated freeway disaster route is I-10 freeway, located 0.47-mile south of the Project site. Temporary lane closures on adjacent streets (East Rowland Avenue, East Pioneer Drive, and/or North Eileen Street) may be required during the short-term construction period in order to connect the proposed Project to the existing utility infrastructure within these roadways. However, Project construction would not involve full closure of any public roadway during construction. Implementation of traffic control measures during construction in accordance with Chapter 19, Article X, Section 19-302, Standard Specifications for Public Works Construction, of the Municipal Code, which adopts the Greenbook by reference (see RR HAZ-4), would further reduce the potential for traffic hazards and the obstruction of access to adjacent parcels.

In the long-term, the Project would provide an access driveway off North Eileen Street that would be used for emergency response to the site and for emergency evacuation of the site, in addition

to two primary ingress and egress points, located on East Rowland Avenue, on the southern boundary of the Project site. The Project would not affect emergency response or emergency evacuation of adjacent land uses. Additionally, East Rowland Avenue, East Pioneer Drive, and/or North Eileen Street are not designated evacuation corridors at the City. There would be less than significant impacts, and no mitigation is required.

g) 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 located in a highly urbanized area of the City, and there are no large, undeveloped areas and/or steep slopes on or near the site that may pose wildfire hazards. The site and the surrounding areas are not located in designated Very High Fire Hazard Severity Zones (VHFHSZ), as identified by the California Department of Forestry and Fire Prevention (CalFire). Rather, the site is within a Non-VHFHSZ area. Implementation of the proposed Project would not expose people or structures directly or indirectly to a significant risk of loss or death associated wildland fires. No impact would occur, and no mitigation is required.

Regulatory Requirements

RR HAZ-1 The demolition contractor shall comply with the requirements of Title 8 of the *California Code of Regulations* (Section 1532.1-Lead) regarding the removal of lead-based paint or other materials containing lead. The regulations set exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to lead. Lead-contaminated debris and other wastes shall be removed and monitored by contractors with appropriate certifications from the California Department of Health Services and disposed of in accordance with the applicable provisions of the *California Health and Safety Code*.

RR HAZ-2 The demolition contractor shall comply with the South Coast Air Quality Management District's (SCAQMD's) Rule 1403, which provides guidelines for the proper removal and disposal of asbestos-containing materials. In accordance with Rule 1403, prior to the demolition, renovation, rehabilitation or alteration of structures that may contain asbestos, an asbestos survey shall be performed by a Certified Asbestos Consultant (certified by the California Occupational Safety and Health Administration [CalOSHA]) to identify building materials that contain asbestos. Removal of the asbestos shall then include prior notification of the SCAQMD and compliance with removal procedures and time schedules; asbestos handling and clean-up procedures; and storage, disposal, and landfilling requirements under Rule 1403.

RR HAZ-3 The demolition contractor shall comply with the *California Health and Safety Code* (Section 39650 et seq.) and the *California Code of Regulations* (Title 8, Section 1529), which prohibit emissions of asbestos from asbestos-related demolition or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for the release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos.

RR HAZ-4 All construction on public rights-of-way shall include the implementation of traffic control measures in accordance with the West Covina Municipal Code Chapter 12.20, Street Excavation, and Chapter 19, Article X, Section 19-302, Standard Specifications for Public Works Construction, which adopts the Greenbook by reference.

Mitigation Measures

Project implementation would not result in significant impacts related to hazards and hazardous materials; therefore, no mitigation measures are required.

4.10 HYDROLOGY AND WATER QUALITY

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

Impact Analysis

A Preliminary Hydrology Study (Hydrology Study) was prepared by DKP Engineering, Inc. in May 2020 for the Project. The Hydrology Study is summarized below, and the report is included as Appendix F to this IS/MND.

The City of West Covina is underlain by the San Gabriel Valley Groundwater Basin, which consists of water-bearing sediments that underlie most of the San Gabriel Valley and a portion of the upper Santa Ana Valley. Concerns about the sustainability of groundwater supply in the basin led to the adjudication of water rights and the establishment of a Main San Gabriel Basin Watermaster in 1973. The Basin Watermaster currently estimates the amount of water in storage at 7.45 million acre-feet and has attributed recent declines compared to historic levels to the effects of the current drought. Approximately 80 percent of West Covina's potable water is from the local groundwater basin, which is supplied by several water agencies. The basin contains several contaminant plumes including nitrates, volatile organic compounds, and perchlorate from past industrial processes. Cleanup of these contaminants continues today. Despite their presence, the overall groundwater quality of the basin for potable use is high (City of West Covina 2016b).

Would the Project:

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

Less than Significant Impact. Implementation of the Project would involve demolition of the existing school and administrative buildings, surface parking lots, and associated site improvements, in addition to construction of the proposed dwelling units and site improvements. Therefore, the Project has the potential to result in short-term construction impacts to surface water quality from demolition, grading, and construction-related activities. Storm water runoff from the construction site would contain loose soils, organic matter, and sediments. Spills or leaks from heavy equipment and machinery, such as fuel, oil and grease, and heavy metals, could also enter the runoff. Building construction would involve the use of hazardous materials (e.g., paints, solvents, cleansers) that, if not properly handled, may enter the stormwater runoff.

The Clean Water Act (CWA) establishes a framework for regulating potential water quality impacts from construction activities, as well as new development and major redevelopment, through the National Pollutant Discharge Elimination System (NPDES) program. Construction activities that disturb one acre or more of land are required to obtain an NPDES permit or coverage under the NPDES Construction General Permit. This is accomplished by completing and filing Permit Registration Documents (PRD) (including a Notice of Intent, a Storm Water Pollution Prevention Plan [SWPPP], an annual fee, and a signed certification) with the State Water Resources Control Board (SWRCB) prior to start of construction activities. The Best Management Programs (BMPs) in the SWPPP are implemented during construction to reduce storm water pollutants to the maximum extent practicable. Coverage under the NPDES Construction General Permit and implementation of the Project's SWPPP (see RR HYD-1) would ensure that short-term, construction-related water quality impacts would be less than significant. No mitigation is required.

Stormwater pollutants that would be generated by the Project in the long-term include sediment, trash and debris, oil and grease, bacterial indicators, nutrients, and pesticides that would come from landscaped areas, drive aisles, parking areas, and outdoor residential activities. In accordance with the NPDES program and Section 9.36, Control of Pollutants from New Developments/Redevelopment Projects, of the West Covina Municipal Code, the Project Applicant would be required to prepare and implement a standard urban stormwater mitigation plan (SUSMP) (RR HYD-2). The City would review and approve the SUSMP prior to construction and operation of the Project. The SUSMP would include low impact development, structural and non-structural BMPs and source control BMPs. Compliance with RR HYD-1 and RR HYD-2 would reduce the risk of water degradation from soil erosion and other pollutants related to construction activities, and potential violations of water quality standards would be minimized through required BMPs. Therefore, the Project would not violate water quality standards or waste discharge requirements. Impacts 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 impede sustainable groundwater management of the basin?

Less than Significant Impact. The Project would not involve direct or indirect withdrawals of groundwater. Domestic water service would be provided by the Suburban Water Systems, as described in Section 4.19, Utilities and Service Systems. Also, the Project would not deplete groundwater supplies or interfere substantially with groundwater recharge. Most of the Project site is currently covered in impervious surfaces (53 percent), and Project implementation would also result in an increase of impervious surfaces, to 80 percent coverage. Therefore, there would be minimal change in groundwater recharge, impacts would be less than significant, and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including 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. As indicated in Response 4.7b, Geology and Soils, the Project would be required to obtain a NPDES permit for construction activities or coverage under the NPDES Construction General Permit. The Construction General Permit requires preparation of a SWPPP and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance BMPs to reduce the potential for soil and wind erosion during construction activities (see RR HYD-1). Further, the proposed Project must comply with the City's grading ordinance, which requires preparation of an erosion and sediment control plan for City approval prior to issuance of a grading permit (see RR GEO-2). With compliance with these regulations, construction-related erosion would be less than significant, and no mitigation is required.

There would be minimal areas of exposed soils following completion of the proposed Project where erosion could occur. Site improvements and landscaping would also prevent long-term erosion (RR HYD-2). Therefore, operation-related erosion would be less than significant, and no mitigation is required.

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

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

Less than Significant Impact. Currently, 53 percent of the Project site is covered with impervious surfaces, which would increase to 80 percent with implementation of the proposed Project. Off-site improvements would include storm drain improvements, parkway improvements, and utility connections (water, sewer, electricity, natural gas, and telecommunication lines). Exhibit 3-8 shows the Conceptual Utility Plan. A private storm drain system, which would be located within the main drive aisles would convey the sites stormwater runoff to an underground detention system in the guest parking lot adjacent to East Rowland

Avenue. Stormwater would infiltrate, be detained, and meter the runoff onto East Rowland Avenue to match historical drainage patterns and volumes at the Project site. In addition, stormwater from North Eileen Avenue would be intercepted and re-routed through the onsite storm drain system. This would allow for abandonment of the existing storm drain swale and easement along the westerly boundary of the site, and improved drainage for the area. These encroachments would occur in compliance with City regulations. Any right-of-way dedication and public infrastructure improvements would also be done in accordance with the City's municipal code. The proposed changes resulting from the Project site would not substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite. Impacts would be less than significant, and no mitigation is required.

iv) impede or redirect flood flows?

Less than Significant Impact. FEMA designates most of West Covina as Zone X, which is an area subject to flooding from the 500-year flood (0.2 percent annual chance of flooding) (FEMA 2020). Off-site improvements would include storm drain improvements, parkway improvements, and utility connections (water, sewer, electricity, natural gas, and telecommunication lines). A private storm drain system, which would be located within the main drive aisles would convey the site's stormwater runoff to an underground detention system in the guest parking lot adjacent to East Rowland Avenue. Stormwater would infiltrate, be detained, and meter the runoff onto East Rowland Avenue to match historical drainage patterns and volumes at the Project site. In addition, stormwater from North Eileen Avenue would be intercepted and re-routed through the onsite storm drain system.

Implementation of temporary and permanent erosion control BMPs in the Project's SWPPP and SUSMP (see RR HYD-1 and RR HYD-2) would ensure that substantial erosion or siltation would not occur on- or off-site during short-term construction and long-term occupancy of the dwelling units. Thus, the Project would not result in erosion or siltation that would alter the drainage pattern of the area. Project impacts would be less than significant, and no mitigation is required.

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

No Impact. A seiche is the resonant oscillation of a body of water caused by earthquake shaking (waves). Seiche hazards exist where groundshaking causes water to splash out of the body of water and inundate nearby areas and structures. The site is not located near a large body of water that may be subject to seiche. Additionally, tsunamis are seismic sea waves generated by undersea earthquakes or landslides. The City of West Covina is not located along the coast, and the Project site is approximately 26.2 miles from the Pacific Ocean. Further, the Project site is relatively flat. There are no hillside areas on site or in the surrounding area that could generate mudflow. As a result, no impacts related to seiche, tsunami, or mudflow would occur, and no mitigation is required.

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

Less than Significant Impact. As discussed above in Response 4.10a, the Project would comply with applicable water quality regulations for short-term and long-term impacts. Specifically, the Project would have coverage under the NPDES Construction General Permit and implementation

of the Project's SWPPP (see RR HYD-1) would ensure that short-term, construction-related water quality impacts would be less than significant. For long-term water quality impacts, in accordance with the NPDES program and Section 9.36, Control of Pollutants from New Developments/Redevelopment Projects, of the West Covina Municipal Code, the Project would be constructed and operated in accordance with the standard urban stormwater mitigation plan (SUSMP), prepared for the Project and approved by the City (see RR HYD-2). Thus, with implementation of permanent BMPs in the SUSMP, the Project site would generate less stormwater pollutants than under existing conditions.

As indicated above in response to Threshold 4.10a, there are no groundwater wells on the Project site and no wells are proposed as part of the Project. The proposed Project would not involve direct withdrawals of groundwater, nor would it interfere with groundwater recharge such that it would result in a net deficit in aquifer volume or lowering of the local groundwater table levels. Excavation activities would not extend into the underlying groundwater, which has a historical high depth to groundwater at approximately 100 to 150 feet bgs at the Project site (Leighton and Associates 2020a). Therefore, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts are less than significant, and no mitigation is required.

Regulatory Requirements

RR HYD-1 Prior to demolition and construction activities on the site, the Contractor shall prepare and file a Permit Registration Document (PRD) with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved Construction General Permit. The PRD shall consist of a Notice of Intent (NOI); a Risk Assessment; a Site Map; a Storm Water Pollution Prevention Plan (SWPPP); an annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall implement the Best Management Practices (BMPs) in the SWPPP to reduce or eliminate construction-related pollutants in site runoff. The BMPs shall be implemented during all demolition and construction activities on the site.

RR HYD-2 In accordance with Section 9.36, Control of Pollutants from New Developments/Redevelopment Projects, of the West Covina Municipal Code, the Project shall be constructed and operated in accordance with the standard urban stormwater mitigation plan (SUSMP) prepared for the Project and approved by the City.

Mitigation Measures

Project implementation would not result in significant impacts related to hydrology and water quality; therefore, no mitigation measures are required.

4.11 LAND USE AND PLANNING

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

Impact Analysis

Would the Project:

a) Physically divide an established community?

No Impact. The Project site is currently developed with a school use that consists of administrative buildings, recreational areas, and associated surface parking areas and site improvements. No residential uses currently occur on the site that would be impacted or divided by development of the proposed Project.

The Project site is surrounded by single family residential uses to the north and west and existing commercial uses are located immediately to the north, east, and south of the Project site. The proposed Project would be compatible with the adjacent residential communities. Therefore, the Project would not divide or disrupt the physical arrangement of the existing adjacent residential neighborhoods and would serve as an extension of existing residential area. No impact would on occur on an established community, and no mitigation is required.

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

Less than Significant Impact. With respect to regional planning, SCAG is the metropolitan planning organization (MPO) for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial counties. As the designated MPO, the federal government mandates SCAG to prepare plans for growth management, transportation, air quality, and hazardous waste management. In addition, SCAG reviews projects of regional significance for consistency with the existing regional plans. SCAG's regional planning programs, including the Regional Comprehensive Plan (RCP), Regional Housing Needs Assessment (RHNA), and RTP/SCS, are not directly applicable to the proposed Project because the Project is not of Statewide, regional or area-wide significance, as defined by Section 15206 of the CEQA Guidelines. However, the Project would contribute to new housing development in the City of West Covina, and thus contributes to the City's RHNA housing goal of 831 new dwelling units between 2014 and 2021 (SCAG 2012). Local plans and programs relevant to the Project and the consistency of the proposed Project with these plans and programs are discussed below.

Walnut Grove Specific Plan

The site is currently zoned Residential Single-Family (R-1) and would require a zone change to Specific Plan. The Walnut Grove Specific Plan has been developed as both a regulatory and a land use policy document, which, upon adoption by ordinance, would constitute the zoning for the Project site. The proposed Zone Change would make the Project consistent with the Zoning Code.

The Project would require a Zone Change and Specific Plan Adoption to include the parcel that comprises the 9.14-acre Project site, as described in Section 3.0, Project Description. Per California Government Code Section 65454, Specific Plans, the proposed Walnut Grove Specific Plan must be consistent with the City of West Covina's General Plan. The Governor's Office of Planning and Research (OPR) defines consistency with a General Plan as "a program or project that will further the objective and policies of the General Plan." The Walnut Grove Specific Plan area has an existing General Plan Land Use designation of Civic: Schools. Adoption of the Zone Change and Specific Plan would require a concurrent adoption of a General Plan Land Use Amendment to a "Neighborhood Medium" land use designation, which would allow densities between 9 and 20 dwelling units per acre. The Specific Plan would have a density of 16.7 dwelling units per acre. Upon this land use amendment, the Specific Plan would be consistent with the General Plan and its relevant goals and objectives.

City of West Covina General Plan

The City of West Covina General Plan, PlanWC, was adopted by City Council in December 2016 (City of West Covina 2016a). PlanWC is organized into the following elements: (1) Our Natural Community (Conservation/Open Space), (2) Our Prosperous Community (Economic Development), (3) Our Well Planned Community (Land Use/Design, Housing, Parks and Recreation), (4) Our Accessible Community (Circulation), (5) Our Resilient Community (Land Use), (6) Our Healthy and Safe Community (Public Health, Safety, Noise, and Land Use), (7) Our Active Community (Land Use, Open Space, Parks and Recreation), and (8) Our Creative Community (Culture). The housing element (2014-2021 Housing Element) was adopted under a separate cover on October 1, 2013 and was amended on December 20, 2016 (City of West Covina 2016c). Each element contains the City's goals and policies related to that element. An analysis of how the Project is applicable to each element is described below. Additionally, an evaluation of the Project's consistency with applicable goals and policies is provided in Table 4-15, Proposed Project General Plan Consistency Analysis.

TABLE 4-15
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Goal/Policy/Action		Consistency Analysis
Goal—Our Natural Community		
Air—Policy 1.3	Minimize the adverse impacts of growth and development on air quality and climate.	**Consistent**. As discussed in Section 4.3, Air Quality, and 4.8, Greenhouse Gas Emissions, the Project's emissions would be less than the SCAQMD's thresholds for air quality and GHG emissions. Through compliance with RR AQ-1, for fugitive dust control, RR AQ-2, for nuisance emissions, and RR ENE-1, Title 24 Energy Efficiency Standards, the Project would minimize adverse impacts of the Project on air quality and climate.
Water—Policy 1.5	Where appropriate, new development shall minimize impervious area, minimize runoff and pollution, and incorporate best management practices.	**Consistent**. As discussed in Section 4.10, Hydrology and Water Quality, the Project would minimize runoff and pollution of water through the preparation of a SWPPP and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance BMPs to reduce the potential for soil and wind erosion during construction activities (see RR HYD-1, in Section 4.10). Therefore, the Project would be consistent with this Policy.
Access to Nature—Policy 1.9	During the review of public and private development projects, analyze potential impacts to views of natural areas from public streets, parks, trails, and community facilities.	**Consistent**. As discussed in Section 4.1, Aesthetics, of this IS/MND, potential impacts to natural views, including views of the Los Angeles National Forest and San Gabriel Mountains are analyzed from public areas surrounding the Project site. Impacts to public views would be less than significant.
Goal—Our Prosperous Community		
Policy 2.6	Create a diversity of housing options.	**Consistent**. The Project would provide a diversity of housing options, including single family detached units and multi-family attached townhome units.
Goal—Our Well Planned Community		
Policy 3.3	New growth will complete, enhance, and reinforce the form and character of the unique West Covina neighborhoods, districts, and corridors.	**Consistent**. The Project would provide new residential development to complete, enhance, and reinforce the surrounding neighborhood residential community adjacent to the Project site. The residences would be compatible with the surrounding neighborhood.
Policy 3.6	Reduce West Covina's production of greenhouse gas emissions and contribution to climate change, and adapt to the effects of climate change.	**Consistent**. As discussed in Section 4.8, Greenhouse Gas Emissions, the Project's emissions would be less than the SCAQMD's recommended thresholds GHG emissions. Through compliance with RR ENE-1, Title 24 Energy Efficiency Standards, the Project would minimize GHG emissions. The Project's proposed single-family uses are required to offset annual electrical demand through the use of energy efficiency and solar photovoltaic panels. These single-family units are expected to reduce energy use by more than 50 percent. This reduction of energy use would consequently reduce GHG emissions, thereby reducing West Covina's contribution to climate change. Additionally, the Project would reduce vehicle miles traveled (VMT) by providing residential uses adjacent to commercial uses, thereby reducing GHG emissions from mobile emissions.
Action 3.6	Key land use adaptation strategies to reduce greenhouse gas emissions are: Promoting transit-oriented infill development and Providing incentives for high-performance buildings and infrastructure.	
Goal—Our Accessible Community		
Policy 4.8	Implement "green" streetscape elements for purposes of beautification, carbon reduction and stormwater runoff management.	**Consistent**. The Project would implement landscaping along the streetscape of East Rowland Avenue. Tree and shrub planting would be designed to complement and blend the Walnut Grove frontage with adjacent properties.

TABLE 4-15
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Goal/Policy/Action		Consistency Analysis
Goal—Our Resilient Community		
Energy—Policy 5.6	Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction & major renovations.	**Consistent**. The Project would comply with RR ENE-1, which is Title 24 of the California Energy Commission (CEC) code. The 2019 Title 24 Energy Efficiency Standards for residential buildings include requirements such as installation of solar photovoltaic systems, including smart inverters with optional battery storage. Additionally, residential uses are required to have updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); ventilation requirements; and lighting requirements.
Goal—Our Healthy and Safe Community		
Active Living—Policy 6.2	New and renovated buildings should be designed and constructed to improve the health of the residents, workers, and visitors.	**Consistent**. As stated above, the Project would comply with RR ENE-1. Under the 2019 Title 24 Energy Efficiency Standards, residential uses are required to have updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); ventilation requirements; and lighting requirements. Adherence with RR ENE-1 would ensure consistency with this policy.
Active Living—Policy 6.5	Seek to increase its amounts of parks and trails to support physical activity and reduce the incidence of chronic illness.	**Consistent**. The Project would establish a primary recreation area within the Project site as well as several internal paseo walkways, creating equal access to open space for residents.
Natural Hazard—Action 6.15a	Require all development to comply with the provisions of the latest California Building Code, including provisions related to design and engineering to mitigate potential impacts from seismic events, fires, and other hazards.	**Consistent**. The Project would comply with the provisions of the latest adopted California Building Code. Impacts from seismic fires, and other hazards are analyzed within this IS/MND. All impacts would be less than significant for the Project.
Noise—Policy 6.23	Ensure that new development is not exposed to excessive noise.	**Consistent**. The Project would have less than significant impacts associated with noise, as detailed in Section 4.13, Noise. Exterior noise levels would be reduced to the "normally acceptable" range in the City's land use/noise compatibility matrix, as demonstrated in Table 4-17 of Section 4.13.
Noise—Action 6.23a!	Require new developments to reduce exterior noise levels for any usable outdoor area to the "normally acceptable" range in the City's land use/noise compatibility matrix, shown in Table 6.4 of this Noise Element.	
Noise—Action 6.23c	Require any residential component of all new buildings to comply with the requirements of the residential noise insulations standards of the most recent edition of California's building code.	**Consistent**. The Project would be required to comply with residential noise insulation standards of the California Building Code (RR NOI-1).
Noise—Policy 6.24	Ensure that new development does not expose surrounding land uses to excessive noise.	**Consistent**. As detailed in Section 4.13, the Project would not subject surrounding land uses to excessive noise. Construction and operational noise was analyzed for the Project. Generation of

TABLE 4-15
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Goal/Policy/Action		Consistency Analysis
Noise—Action 6.24	Through the environmental review process, require applicants for new development proposals to analyze potential noise impacts on nearby noise-sensitive receivers before project approval. As feasible, require appropriate noise mitigation to address any identified significant noise impacts.	temporary or permanent increases in ambient noise levels would be less than significant with implementation of MM NOI-1. MM NOI-2 would reduce vibration impacts to less than significant.
Noise—Policy 6.25	Minimize noise conflicts between local noise generators and sensitive receivers.	**Consistent**. As described in Section 4.13, Noise, the Project would have less than significant impacts for generation of noise in excess of noise standards. Sensitive receptors to the north and west of the site would not be subject to significant noise or vibration impacts. Additionally, the Project is subject to the City's noise ordinance, and would be comply with its requirements, per RR NOI-2.
Noise—Action 6.25a	Continue to enforce the City's existing Noise Ordinance.	
Goal—Our Creative Community		
Celebrate and Promote West Covina's Cultural Assets—Policy 7.7	Assess, avoid, and mitigate potential impacts to archeological, paleontological, and tribal resources through the CEQA review process for development projects carried out within the City. Comply with existing regulations relating to Native American resources, including California Environmental Quality Act Section 15064.5(d) and (e) and Public Resources Code §5097.98 concerning burial grounds, and Assembly Bill 52 and Senate Bill 18 for consultation with Native American tribes for development projects carried out within the City.	**Consistent**. The Project is subject to the CEQA process. Through this IS/MND, potential impacts to archeological, paleontological, and tribal resources are mitigated to less than significant impacts, as described in Sections 4.5, 4.7, and 4.18, respectively. The Project would be subject to existing regulations, including CEQA Section 15064.5(d) and (e) and Public Resources Code §5097.98 concerning burial grounds, and Assembly Bill 52 and Senate Bill 18 for consultation with Native American tribes for development projects carried out within the City. The Project's impacts to these resources would be less than significant with implementation of MM CUL-1, MM GEO-2, and MM TCR-1.
Celebrate and Promote West Covina's Cultural Assets—Action 7.7	Require development to avoid archaeological and paleontological resources, whenever possible. If complete avoidance is not possible, require development to minimize and fully mitigate the impacts to the resources. Notify California Native American tribes and organizations of proposed projects that have the potential to adversely impact cultural resources.	
Goals—Our Active Community		
Walk or Bike to Parks—Policy 8.4	Small and frequent open spaces should be dispersed throughout the neighborhood.	**Consistent**. The Project would establish a primary recreation area within the Project site as well as several internal paseo walkways, creating equal access to open space for residents.
Walk or Bike to Parks—Action 8.4	Develop new neighborhood parks, pocket parks, and community gardens as feasible and appropriate to meet citizen needs and require them in new development.	

TABLE 4-15
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Goal/Policy/Action		Consistency Analysis
Housing Element		
Goal 2	Provide a variety of housing types to accommodate all economic segments of the City	**Consistent**. The intent of this goal is to assist in the provision of adequate housing to meet the needs of the community, including the needs of both renter and owner households. The Project implements this goal by providing a mixture of single family detached and attached homes in a well-designed community. Development is compatible with the surrounding neighborhoods and provides housing opportunities at different income levels.
Goal 4	Promote equal housing opportunity for all residents	**Consistent**. The Project would be consistent with this goal by allowing anyone, regardless of sex, age, race, marital status, ethnic background, handicap, source of income, or any other characteristic to live within the community.
Policy 4.1	Continue to enforce fair housing laws prohibiting discrimination in the building, financing, selling, or renting of housing on the basis of race, ethnicity, ancestry, national origin, religion, sex, disability, age, marital status, familial status, source of income, sexual orientation, or any other arbitrary factor.	
Goal 5	Identify adequate sites to achieve housing variety	**Consistent**. The Project would be consistent with this goal by creating detached single family residential and attached townhouse housing options through infill development on an underutilized parcel.
Policy 5.1	Provide for a range of residential development types in West Covina, including low density single-family homes, moderate density townhomes, higher density multi-family units, and residential/commercial mixed use in order to address the City's share of regional housing needs.	
Source: City of West Covina 2016a, City of West Covina 2016c.		

As demonstrated in Table 4-15, the Project would be consistent with the General Plan's applicable goals, policies, and actions. Adoption of the Walnut Grove Specific Plan, as part of the Project, would require a concurrent adoption of a General Plan Land Use Amendment to a "Neighborhood Medium" land use designation. This would allow between 9 and 20 dwelling units per acre. Upon amendment, the Project would be consistent with the General Plan. The Project would provide residential uses adjacent to the existing single-family residences and provides an infill development that would revitalize the underutilized site. Therefore, in light of the above, there would be no conflict with the goals and policies of the General Plan or the land use designation for the site.

West Covina Zoning Code

The West Covina Zoning Code is the primary tool for implementing the General Plan. The Zoning Code provides development standards (i.e., setbacks, building height, site coverage, parking, and sign requirements) for development in all areas of the City. In addition, the Zoning Code includes a Zoning Map that identifies the zoning of individual parcels, with corresponding permitted, conditionally permitted, and prohibited land uses.

The Project site is currently zoned Residential Single-Family (R-1). Thus, as part of the Project, a Zone Change is needed from R-1 to Specific Plan (SP). With the Zone Change, the site zoning would be consistent with the zoning of the site.

The Walnut Grove Specific Plan has been developed as both a regulatory and land use policy document. Upon adoption by ordinance, the Walnut Grove Specific Plan would constitute the zoning for the Project site. As part of the approval and adoption of the Walnut Grove Specific Plan, development plans or agreements, tract or parcel maps, site plans, and any other actions requiring ministerial or discretionary approval of the Project site must be consistent with the Specific Plan. With the proposed Zone Change, the Project would not conflict with any local land use plan, policy, or regulation.

In light of the above analysis, the Project would not cause a significant environmental impact, as the Project would not conflict with any land use plan, policy, or regulation, including the City's General Plan and Zoning. Impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to land use and planning; therefore, no mitigation measures are required.

4.12 MINERAL RESOURCES

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

Impact Analysis

Would the Project:

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

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

No Impact. The California Geological Survey (CGS) designates Mineral Resources Zones (MRZs) according to the presence of or potential for underlying mineral resources. MRZ-1 is an area with no significant mineral deposits; MRZ-2 is an area with significant mineral deposits; and MRZ-3 is an area containing known mineral resources of undetermined significance. The Project site is not located within an MRZ (DOC 2010). There are no areas within the City of West Covina containing known mineral resources appropriate for mineral extraction. Thus, there would be no loss of availability of known mineral resources or of locally important mineral resource recovery sites (City of West Covina 2016a).

There are no past or ongoing oil or gas drilling activities on or near the site. Review of the California Division of Oil, Gas, and Geothermal Resources' (DOGGR's) Well Finder shows no oil or gas wells are located on the Project site or in the vicinity of the site. The nearest well is a dry, plugged hole approximately 2.6 miles south of the site (DOGGR 2020). Therefore, redevelopment of the site with residential uses would not result in the loss or availability of regional mineral resources. In addition, there are no mining activities on or near the site. Thus, the Project would not result in the loss or availability of locally-important mineral resources. No impacts would occur, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to mineral resources; therefore, no mitigation is required.

4.13 NOISE

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

Impact Analysis

Several rating scales (or noise "metrics") are used to analyze the effects of noise on a community. These scales include the equivalent noise level (Leq) and the community noise equivalent level (CNEL). Average noise levels over a period of minutes or hours are usually expressed as A-weighted decibels (dBA) Leq, which is the equivalent noise level for that period of time. The period of time averaging may be specified where Leq(3) would be a 3-hour average. When no period is specified, a 1-hour average is assumed. Noise of short duration (i.e., substantially less than the averaging period) is averaged into ambient noise during the period of interest. Thus, a loud noise lasting several seconds or a few minutes may have minimal effect on the measured sound level averaged over a one-hour period.

To evaluate community noise impacts, CNEL was developed to account for human sensitivity to evening and nighttime noise. CNEL separates a 24-hour day into three periods: daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM). The evening sound levels are assigned a 5-dBA penalty, and the nighttime sound levels are assigned a 10-dBA penalty prior to averaging them with daytime hourly sound levels.

Several statistical descriptors are also often used to describe noise, including Lmax and Lmin, which are the highest and lowest A-weighted sound levels that occur during a noise event, respectively.

Vibration amplitudes are commonly expressed in peak particle velocity (ppv) or root-mean square (RMS) vibration velocity. Ppv is defined as the maximum instantaneous positive or negative peak of a vibration signal. Ppv and RMS vibration velocity are normally described in inches per second. Similar to airborne sound, vibration velocity can be expressed in decibel notation as vibration decibels (VdB).

Existing Conditions

To evaluate the existing noise environment, noise level measurements were collected at 4 locations on July 27th and 28th of 2020. Long-term measurements were collected for 24-hours along the eastern Project boundary (North Azusa Avenue and parking lot) and southern Project boundary (East Rowland Avenue), as well as 20-minute short-term measurements for the western and northern Project boundaries where noise levels are not substantial. The energy average (L_{eq}), maximum noise level (L_{max}), and minimum noise level (L_{min}) values were taken at each ambient noise measurement location, as shown in Table 4-16, below. The complete noise monitoring results are included in Appendix G.

TABLE 4-16
SUMMARY OF SHORT-TERM AMBIENT NOISE LEVEL MEASUREMENTS

Measurement Number	Location	Time	Noise Levels (dBA)			Primary Noise Source
			L_{eq}	L_{max}	L_{min}	
1	Northern Project Boundary	12:56 – 1:17 pm	50.5	61.3	46.7	Background traffic and parking lot activities
2	Western Project Boundary	1:23 – 1:46 pm	45.7	53.2	42.4	Background traffic

dBA: A-weighted decibels; L_{eq}: equivalent noise level; L_{max}: maximum noise level; L_{min}: minimum noise level.
See Appendix G for Noise data.

As shown in Table 4-16, the average daytime noise levels near the site range from approximately 46 to 51 dBA L_{eq}. Noise levels are considered low at these measurement locations and primarily attributable to distant traffic noise. Noise levels at the northern and western property boundaries are substantially below the noise compatibility standards for residential uses.

Noise monitoring locations along the southern and eastern Project boundary lines were measured for 24-hours due to the higher noise exposure caused by North Azusa Avenue and East Rowland Avenue. As shown on Exhibit 4-3, Hourly Noise Levels at Southern Project Boundary, average noise levels in the study area range from 53 to 70 dBA L_{eq}. The 24-hour weighted noise level at this location is 70 dBA CNEL. The measured noise levels are considered by the City as "Conditionally Acceptable" which requires that "new construction or development should be undertaken after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice" (City of West Covina 2016a).

EXHIBIT 4-3
HOURLY NOISE LEVELS AT THE SOUTHERN PROJECT BOUNDARY ALONG EAST ROWLAND AVENUE

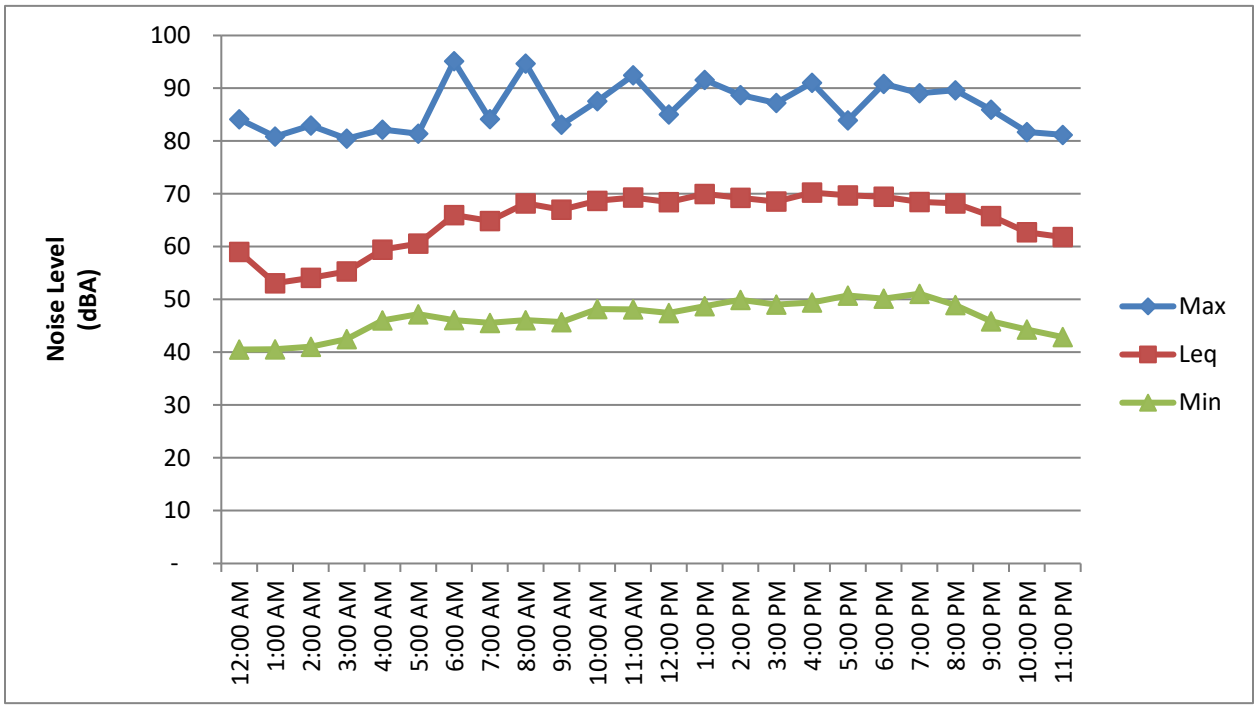
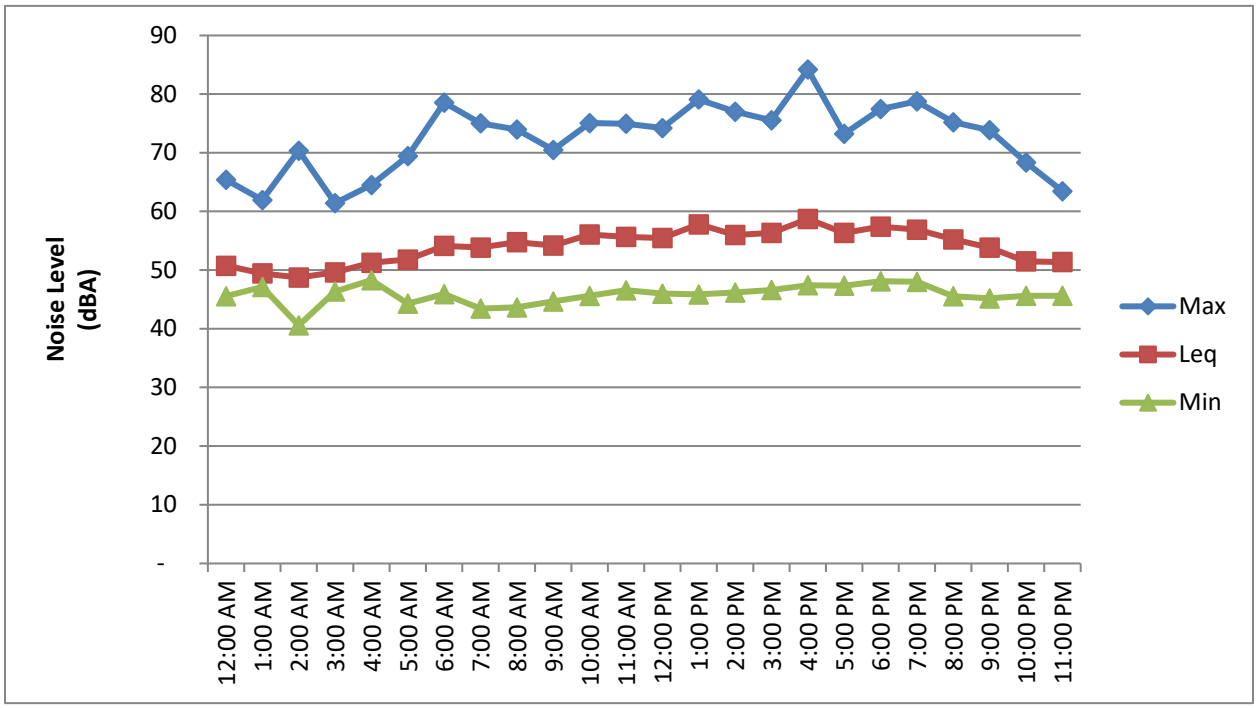


Exhibit 4-4, shown below, provides the 24-hour measurements conducted at the eastern Project property line adjacent to existing parking lot uses. Hourly Noise Levels at Noise Monitoring along East Grove Avenue had average daytime noise levels, which range from 49 to 59 dBA L_{eq}. The 24-hour weighted noise level at this location is 59 dBA CNEL. Noise levels at this location are within the City's noise exposure criteria of "Normally Acceptable" for residential uses (City of West Covina 2016a).

EXHIBIT 4-4
HOURLY NOISE LEVELS AT THE EASTERN PROJECT BOUNDARY
PROXIMATE TO PARKING LOT ACTIVITIES



Sensitive Receptors

Noise-sensitive receptors are generally considered to be humans who are engaged in activities that may be subject to the stress of significant interference from noise. These would include residents within the Project site that may be sleeping, resting, or involved in other activities that are not conducive to loud noise.

City of West Covina General Plan

The City of West Covina is affected by several different sources of noise, including automobile traffic, commercial activity, and periodic nuisances such as construction, loud parties, and other events. The Noise Element of the City's General Plan (PlanWC) is intended to identify these sources and provide objectives and policies that ensure that noise from these sources does not create an unacceptable noise environment (City of West Covina 2016a). Consistency with the applicable noise-related Policies and Actions of the General Plan are demonstrated in Table 4-15 of Section 4.11, Land Use and Planning. The section of the PlanWC entitled "Our Healthy and Safe Community", Sub-Section E, comprises the City's "Noise Element" and contains guidelines for noise compatible land uses for long-term operations as shown in Table 4-17, General Plan Land Use/Noise Computability Matrix.

TABLE 4-17
GENERAL PLAN LAND USE/NOISE COMPATIBILITY MATRIX

Land Use Category	Community Noise Exposure L_{dn} or CNEL, DBA						
	55	60	65	70	75	80	85
Residential – Low density single family, duplex, mobile homes							
Residential – Multi-family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirement.

Normally Unacceptable

If new construction or development proceeds, an analysis of the noise reduction requirements should be made and needed noise insulation features included in the design.

Conditionally Acceptable

New construction or development should be undertaken after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Clearly Unacceptable

New construction or development should generally not be undertaken, unless it can be demonstrated that an interior level of 45 dBA can be achieved.

Source: City of West Covina 2016a.

City of West Covina Development Code

The City Municipal Code (Chapter 15, Article IV, Noise Regulations) is the City's Noise Ordinance. It is the City's policy "…in the exercise of its police power, to regulate and control annoying noise levels from all sources. At certain levels noises are detrimental to the health and welfare of the citizenry and in the public interest shall be systematically proscribed." The following sections of the Noise Ordinance are applicable to the proposed Project:

Sec. 15-85 – Loud, unnecessary noise prohibited generally.

Notwithstanding any other provision of this article, it shall be unlawful for any person within any residential zone of the city to willfully make or continue or cause to be made or continued, any loud, unnecessary or unusual noise which unreasonably disturbs the peace and quiet of any residential neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. If the noise which is being created is plainly audible at a distance of fifty (50) feet from the property line of any property (or if a condominium or apartment house, within any adjoining unit or apartment), building, structure or vehicle in which it is located, it shall be presumed that the noise being created is in violation of the provisions of this section.

Sec. 15-94 – Radios, television sets, and similar devices.

Between the hours of 10:00 p.m. on one day and 7:00 a.m. of the following day, it shall be unlawful for any person within any residential zone of the city to use or operate any radio receiving set, musical instrument, phonograph, television set, or other machine or device for the producing or reproducing of sound or any device by which voice, music, or any other sound is amplified, in such a manner as to create any noise which causes the noise level at the property line of any property (or if a condominium or apartment house, within any adjoining unit or apartment), building, structure or vehicle to be plainly audible at a distance of fifty (50) feet therefrom.

Sec. 15-95 – Construction and building projects.

(a) Regulation. Between the hours of 8:00 p.m. of one day and 7:00 a.m. of the next day, it shall be unlawful for any person within a residential zone, or within a radius of five hundred (500) feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects or to operate any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist, or other construction type device in such manner as to create any noise which causes the noise level at the property line to exceed the ambient noise level by more than five (5) decibels unless a permit therefore has been duly obtained in accordance with paragraph (b) of this section. No permit shall be required to perform emergency work as defined in section 15-83 of this article.

(b) Permit procedure. A permit may be issued authorizing noises prohibited by this section whenever it is found that the public interest will be served thereby. Applications for permits shall be in writing, shall be accompanied by an application fee in the amount of five dollars ($5.00), and shall set forth in detail facts showing that the public interest will be served by the issuance of such permit. Applications shall be made to the building

director; provided, however, that, with respect to work upon or involving the use of a public street, alley, building, or other public place under the jurisdiction of the engineering department, applications shall be made to the city engineer. Anyone dissatisfied with the denial of a permit may appeal to the council.

(c) Unloading and Loading. Between the hours of 8:00 p.m. of one day and 6:00 a.m. of the next day, it shall be unlawful for any person within the radius of five hundred (500) feet of generally occupied residences to unload, load or otherwise perform duties preparatory to the commencement of construction or repair work on buildings or structures. Generally occupied residences shall include, but not be limited to, areas in which there is a reasonable probability of occupancy within the area.

Sec. 15-97. - Restrictions on the operation of two- and four-stroke engines.

(a) Regulation. Between the hours of 8:00 p.m. and 8:00 a.m. of the next day, it shall be unlawful for any person within a residential zone to operate any gasoline-powered two- or four-stroke engine such as a leaf blower, lawn mower, edger, chain saw, roto-tiller, and other such devices for the purpose of maintaining a lawn or property.

Would the Project:

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

Less than Significant Impact with Mitigation.

Project-Related Temporary Noise Increases

Construction activities are anticipated to involve demolition of existing structures and pavement, grading and excavation for utilities and building foundations, and building construction. Construction activities are anticipated to occur in 2021. All construction activities would occur within the hours specified by the Noise Ordinance. It is estimated that a total of approximately 2,000 tons of demolition debris would be exported off site during demolition. During the demolition and grading activities, trucks are expected to enter and leave the Project site on a regular basis during working hours. Demolition debris removal from the Project site would generate an estimated 198 round trips over a 53-day demolition phase. On average, it is anticipated that there would be 4 truck hauls per day. The addition of 4 round haul truck trips per day would increase traffic noise levels by less than 3 dBA, which would not result in a substantial change in noise levels. The grading phase of the Project is estimated to result in 1,219 truck trips over a 31-day construction period. This would result in an average of 39 truck trips per day which would also not contribute a substantial number of trips along East Rowland Avenue with approximately 12,000 trips per day. Thus, this impact would be less than significant.

In typical construction projects (such as the proposed Project), demolition and grading activities generate the highest noise levels since they involve the use of the largest equipment. During demolition and grading, persons in the immediate vicinity of the construction site would experience short-term noise impacts related to the operation of heavy construction equipment such as bulldozers, hoe-rams, excavators, and dump trucks. Noise levels would fluctuate

depending on equipment type, duration of use, and distance between noise source and receiver. The operation of heavy equipment may occur as close as 10 feet to the residences to the north and west of the Project site. Noise from localized point sources, such as construction equipment, decreases by approximately 6 dBA with each doubling of distance from the source to receptor.

Local residents would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities are carried out 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 levels surrounding the construction site as work progresses. Construction noise levels reported in the USEPA's *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground-clearing/demolition, excavation, foundation construction, building construction, paving, and site cleanup) are based on a typical construction equipment mix for an industrial project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers).

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to the development of the proposed Project are shown in Table 4-18, Unmitigated Construction Noise Levels at Noise-Sensitive Uses, and calculations are included in Appendix G, Noise Calculations. Noise levels are evaluated at noise sensitive uses based on an 80 dBA noise threshold established by the City of West Covina (Burns 2020).

TABLE 4-18
UNMITIGATED CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES

	Noise Levels (L_{eq} dBA)							
	Residential Uses to the North of the Project Site		Residential Uses to the West of the Project Site		Residential Uses to the South of the Project Site		Commercial Uses to the East of the Project Site	
Construction Phase	**Max (20 ft)**	**Avg (310 ft)**	**Max (20 ft)**	**Avg (305 ft)**	**Max (110 ft)**	**Avg (400 ft)**	**Max (20 ft)**	**Avg (305 ft)**
Ground Clearing/ Demolition	91	67	91	67	76	65	91	67
Excavation	96	72	96	72	81	70	96	72
Foundation Construction	89	65	89	65	74	63	89	65
Building Construction	89	65	89	65	74	63	89	65
Paving and Site Cleanup	96	72	96	72	81	70	96	72
Noise Threshold	**80**	**80**	**80**	**80**	**80**	**80**	**NA**	**NA**
Exceeds Threshold?	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**NA**	**NA**

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet, NA: Not Applicable

Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.

Source: USEPA 1971. Noise calculations included in Appendix G.

Table 4-18 shows both the maximum and average noise levels for construction equipment. Maximum noise levels represent the noise levels from construction equipment occurring nearest to the noise sensitive use/receptor. Average noise levels represent the noise exposure to sensitive uses based on the distance to the center of the Project site. Noise levels from general

Project-related construction activities would range from 74 to 96 dBA L_{eq} for the maximum noise levels and 63 to 72 dBA L_{eq} for average noise levels. Noise levels would not exceed the residential noise threshold of 80 dBA Leq for average noise levels but would exceed this noise threshold for maximum noise levels when construction equipment are working within 20 feet of a residential receiver. As the Project is anticipated to generate construction noise in excess of 80 dBA at the closest residences, a mitigation measure (MM NOI-1) pertaining to noise barriers is proposed to reduce the potential impact to less than significant levels. MM NOI-1 requires that noise barriers with a minimum height of 12 feet shall be erected along the northern and western boundaries of the construction site which abut residential uses. Mitigated construction noise from the Project is shown in Table 4-19, Mitigated Construction Noise Levels at Noise-Sensitive Uses, and calculations are included in Appendix G, Noise Calculations.

TABLE 4-19
MITIGATED CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES

	Noise Levels (L_{eq} dBA)							
	Residential Uses to the North of the Project Site		Residential Uses to the West of the Project Site		Residential Uses to the South of the Project Site		Commercial Uses to the East of the Project Site	
Construction Phase	Max (20 ft)	Avg (310 ft)	Max (20 ft)	Avg (305 ft)	Max (110 ft)	Avg (400 ft)	Max (20 ft)	Avg (305 ft)
Ground Clearing/ Demolition	75	52	75	52	61	49	75	52
Excavation	80	57	80	57	66	54	80	57
Foundation Construction	73	50	73	50	59	47	73	50
Building Construction	73	50	73	50	59	47	73	50
Paving and Site Cleanup	80	57	80	57	66	54	80	57
Noise Threshold	**80**	**80**	**80**	**80**	**80**	**80**	**NA**	**NA**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**	**NA**	**NA**

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet

Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.

Source: USEPA 1971. Noise calculations included in Appendix G.

Table 4-19 shows both the mitigated maximum and average noise levels for construction equipment. With the implementation of mitigation measure (MM NOI-1), construction noise levels would not exceed the noise threshold. The development of the proposed Project would comply with West Covina Municipal Code Section 15-95, which establishes restrictions for when construction activities are allowed to occur (RR NOI-2). In addition, the Project's construction activities would not result in unusually noisy activities such as impact pile driving. With the incorporation of the restrictions in West Covina Municipal Code Section 15-95 to limit noise levels to the least noise sensitive portions of the day and implementation of MM NOI-1, impacts would be less than significant.

Permanent Project Related Noise Increases

Permanent sources of noise associated with the Project involves vehicle trips traveling to and from the Project site, property maintenance activities (landscaping) as well as mechanical sources of noise.

Noise Generated by Project Traffic

Operation of the proposed Project would generate traffic along roadways in the Project vicinity. The Project is anticipated to generate an additional 1,124 trips per day with 82 AM peak-hour trips and 106 PM peak-hour trips (Psomas 2020). Existing traffic volumes along East Rowland Avenue is approximately 12,000 trips per day and over 40,000 trips per day along North Azusa Avenue. Table 4-20, Project-Related Offsite Traffic Noise Increases, shows that the corresponding increase in offsite traffic noise would range from 0.0 to 0.2 dBA for the analyzed roadway segments. Due to the small contribution of Project-related traffic along local roadways, traffic noise increases from the Project would not be perceptible or substantial. The impact on traffic noise levels would therefore be less than significant, and no mitigation is required.

TABLE 4-20
PROJECT-RELATED OFFSITE TRAFFIC NOISE INCREASES

Intersection	Segment	CNEL at 100 feet from roadway centerline (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
East Rowland Avenue	West of Project Site	71.2	71.3	0.2	No
	East of Project Site	71.2	71.4	0.2	No
North Azusa Avenue	North of East Rowland Avenue	72.0	72.0	0.0	No
	South of East Rowland Avenue	76.9	76.9	0.0	No

CNEL: community noise equivalency level; dBA: A-weighted decibels.
Source: Psomas 2020.

Noise Generated by On-Site Sources

The primary noise sources generated by operation of the proposed Project would be heating, ventilation, and air conditioning (HVAC) equipment, landscape maintenance, and trash collection. The Project would comply with the applicable Title 24 interior noise standards, which require that residential structures have interior noise levels that do not exceed 45 dBA CNEL in any habitable room (RR NOI-1). Noise generated by HVAC equipment and trash collection is not regulated by the Municipal Code. These sources of noise are common with land use development. Noise generated by landscaping activities is regulated by Section 15-97, which prohibits these activities between the hours of 8:00 PM and 8:00 AM within residential areas (RR NOI-2). These sources of noise are typical and not of sufficient magnitude and frequency of occurrence to be considered by the City to result in a significant noise impact. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact with Mitigation. There are no applicable City standards for structural damage from vibration. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table 4-21.

TABLE 4-21
VIBRATION DAMAGE THRESHOLD CRITERIA

Structure and Condition	Maximum ppv (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

ppv: peak particle velocity; in/sec: inch(es) per second.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013.

The nearest structures to the Project site are the residences located within 10 feet from the Project's northern and western property lines. In terms of classifications in Table 4-21, the structures to the west, south and north are considered "older residential structures" for purposes of this analysis. Therefore, the criterion for a significant impact for continuous/frequency intermittent sources is 0.30 ppv in/sec. Commercial buildings located to the east of the Project site are assessed under "modern industrial/commercial buildings" with the criterion of 0.50 in/sec.

Similar to structural damage from vibration, there are no applicable standards in the City's Municipal Code for human annoyance from construction vibration. The Caltrans vibration annoyance potential guideline thresholds are shown in Table 4-22. Based on the guidance in Table 4-22, the "strongly perceptible" vibration level of 0.9 ppv in/sec is used in this analysis as the threshold for a potentially significant vibration impact for human annoyance.

TABLE 4-22
VIBRATION ANNOYANCE CRITERIA

Average Human Response	ppv (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035

ppv: peak particle velocity; in/sec: inch(es) per second.

Source: Caltrans 2013.

Conventional construction equipment would be used for demolition and grading activities, with no pile driving or blasting equipment. Table 4-23 summarizes typical vibration levels measured during construction activities for various vibration-inducing equipment at a distance of 25 feet.

TABLE 4-23
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	ppv at 25 ft (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
ppv: peak particle velocity; ft: feet; in/sec: inches per second. Source: Caltrans 2013; Federal Transit Administration 2006.	

Demolition, grading, and construction would occur up to the property lines and, as noted above, off-site land uses are relatively close to the property lines. Table 4-24, Unmitigated Project Vibration Impacts, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site. Table 4-24 shows the ppv relative to uses proximate to the Project site.

TABLE 4-24
UNMITIGATED PROJECT VIBRATION IMPACTS

	Vibration Levels (ppv)			
	Residential Uses to the North of the Project Site	**Industrial Uses to the West of the Project Site**	**Residential Uses to the South of the Project Site**	**Commercial Uses to the East of the Project Site**
Equipment	(ppv @ 5 ft)	(ppv @ 5 ft)	(ppv @ 125 ft)	(ppv @ 25 ft)
Vibratory roller	**2.35**	**2.35**	0.02	0.21
Caisson Drill	**1.00**	**1.00**	0.01	0.09
Large bulldozer	**1.00**	**1.00**	0.01	0.09
Small bulldozer	0.03	0.03	0.00	0.00
Jackhammer	0.39	0.39	0.00	0.04
Loaded trucks	0.85	0.85	0.01	0.08
Annoyance Criteria	**0.9**	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**Yes**	**Yes**	**No**	**No**
Building Damage Criteria	**0.3**	**0.3**	**0.3**	**0.5**
Exceeds Building Damage Criteria?	**Yes**	**Yes**	**No**	**No**
ppv: peak particle velocity; Max: maximum; avg: average; ft: feet Note: Calculations can be found in Appendix G. Source: FTA 2006				

As shown in Table 4-24, ppv would exceed the criteria thresholds for annoyance and building damage for existing residential uses located to the north and west of the Project site when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions. These vibration levels represent conditions when construction activities occur closest to receptor locations. Construction-related vibration would be substantially less under average

conditions when construction activities are located further away. Because vibration levels would be above the significance thresholds, vibration generated by the Project's construction equipment would be expected to generate strongly perceptible levels of vibration at the nearest uses and would result in significant vibration impacts related to vibration annoyance. In addition, the Project's construction activities may also result in cosmetic building damage at the nearest offsite residential uses located to the north and west of the Project site prior to the implementation of mitigation measures.

MM NOI-2 would reduce vibration generated by construction equipment to levels that would avoid vibration induced annoyance and cosmetic building damage to offsite buildings. MM NOI-2 requires that construction activities using vibratory rollers, caisson augers, and large bulldozers restrict the operation of equipment by at least 25 feet from off-site buildings, and that loaded trucks and other large equipment restrict the operation of equipment by at least 15 feet from off-site buildings. Table 4-25, Mitigated Project Vibration Impacts, shows the ppv levels relative to mitigated vibration generating construction activities.

TABLE 4-25
MITIGATED PROJECT VIBRATION IMPACTS

	Vibration Levels (ppv)			
	Residential Uses to the North of the Project Site	**Industrial Uses to the West of the Project Site**	**Residential Uses to the South of the Project Site**	**Commercial Uses to the East of the Project Site**
Equipment	(ppv @ 25 ft)	(ppv @ 25 ft)	(ppv @ 125 ft)	(ppv @ 25 ft)
Vibratory roller	0.21	0.21	0.02	0.21
Caisson Drill	0.09	0.09	0.01	0.09
Large bulldozer	0.09	0.09	0.01	0.09
Small bulldozer	0.00	0.00	0.00	0.00
Jackhammer	0.04	0.04	0.00	0.04
Loaded trucks	0.08	0.08	0.01	0.08
Annoyance Criteria	**0.9**	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**No**	**No**	**No**	**No**
Building Damage Criteria	**0.3**	**0.3**	**0.3**	**0.5**
Exceeds Building Damage Criteria?	**No**	**No**	**No**	**No**

ppv: peak particle velocity; Max: maximum; avg: average; ft: feet
Source: USEPA 1971 (Calculations can be found in Appendix G).

As shown in Table 4-25, ppv levels would be less than the annoyance and building damage criteria with implementation of MM NOI-2. Therefore, impacts would be less than significant with mitigation.

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 located approximately 7 miles east of the El Monte Municipal Airport. The Project site is also located well outside the existing and projected 65 dBA CNEL noise contour, which would occur within 2 miles of an airport. Aircraft overflights do not significantly contribute to the noise environment at the Project site, and the Project would not expose future Project residents to excessive noise levels. In addition, the Project site is not located within the vicinity of a private airstrip. Therefore, the Project would not result in exposure of people residing or working in the Project area to excessive noise levels from either airport or airstrip-related activities, and no mitigation is required.

Regulatory Requirements

RR NOI-1 The Project must be designed in accordance with the applicable Title 24 interior noise standards. Residential structures shall be designed to prevent the intrusion of exterior noise so that the interior noise attributable to exterior sources shall not exceed 45 A-weighted decibel scale (dBA) Community Noise Equivalent Level (CNEL) in any habitable room.

RR NOI-2 Per the City of West Covina Municipal Code, Section 15-95, Construction of Building Projects, construction activities are prohibited to occur between the hours of 8:00 PM of one day and 7:00 AM of the next day. Construction activities may not cause the noise level at the property line to exceed the ambient noise level by more than five (5) decibels unless a permit therefor has been duly obtained.

Mitigation Measures

MM NOI-1 Noise barriers with a minimum height of 12 feet shall be erected along the northern and western boundaries of the construction site which abut residential uses. The noise barriers shall be constructed of material with a minimum density of two pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but not be limited to, 5/8-inch plywood, 5/8-inch oriented strand board, and hay bales. According to the Housing and Urban Development's Barrier Performance Module, a 12-foot barrier would result in a noise reduction of approximately 16 dBA, resulting in construction noise levels that do not exceed the 80 dBA L_{eq} threshold (noise barrier performance calculations included in Appendix G).

MM NOI-2 The Applicant shall require that all construction contractors restrict the operation of the following construction equipment to beyond the following distances from off-site buildings: (1) vibratory rollers, caisson augers and large bulldozers – 25 feet, and (2) loaded trucks and other large equipment – 15 feet. Smaller construction vehicles could be used within these distances.

4.14 POPULATION AND HOUSING

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

Impact Analysis

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 proposed Project involves the construction of 158 dwelling units that would replace the existing school uses on the site. Using the City's 2020 average household size of 3.35 persons per household (DOF 2020), the Project would directly generate approximately 529 residents. This would increase the City's 2020 resident population of 105,999 persons by 0.5 percent to 106,528 residents. It would increase the City's 2020 housing stock of 32,919 (DOF 2020) by 0.48 percent to 33,077 units. Jobs that would be created during construction would be short-term and would not increase the City's job base permanently. However, the temporary construction crew and long-term residents of the Project would not create a significant change in demand for goods and services that may induce business investment, growth, or development in the area. Additionally, these increases would be within anticipated growth for the City as projected by SCAG at 116,700 residents, 35,000 households, and 34,300 jobs by 2040 (SCAG 2016b).

Additionally, the proposed Project functions as an infill project and is served by existing roads and utility infrastructure. No extension of roads or infrastructure is proposed by the Project such that would encourage development levels beyond what is already planned elsewhere in the City or indirectly induce growth. Therefore, the Project would not result in substantial unplanned population growth, directly or indirectly. The impacts would be less than significant, and no mitigation is required.

The significant physical impacts on the environment associated with the direct growth have been evaluated in this IS/MND.

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

No Impact. The Project site is currently developed with administrative and school buildings and site improvements. There are no existing housing and associated residents on the site that would be displaced by the development of the residential Project. The proposed Project would develop 158 dwelling units and help meet the City's housing goals under SCAG's RHNA, as identified in the Housing Element of the General Plan. Demolition of the existing school buildings would not lead to the loss of existing housing. Thus, no impact related to displacement of housing and related residents would occur, and no replacement housing is required. Therefore, no significant impacts would occur, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to population and housing; therefore, no mitigation measures are required.

4.15 PUBLIC SERVICES

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

Impact Analysis

Would the Project:

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

i) Fire protection?

Less than Significant Impact. Fire protection services in the City, including the Project site, are provided by the West Covina Fire Department (WCFD), which maintains and operates five stations in the City. The 24-hour protection is provided daily by trained and qualified personnel on duty through the five fire stations serving the City. Each station is staffed with trained paramedics, and the five engine companies, the truck company, and the three ambulances are staffed by California-licensed paramedics and certified Emergency Medical Technicians (City of West Covina 2020b). Fire equipment is distributed throughout the City through the five fire stations. Fire Station 3, located at 1433 West Puente Avenue, is the closest station and would provide fire response to the Project site.

The proposed Project would result in a resident population of 529 persons, which is a nominal increase in the total number of City residents (estimated at 105,999 in 2020) served by WCFD. The proposed Project would replace an existing school use, which is currently vacated, but previously generated a demand for fire protection services. Given the size of the Project and the net increase in demand for fire protection services, the incremental demand of the Project for fire protection services would not result in the need for new firefighters and other personnel,

nor would it require the construction of new or the alteration of existing fire protection facilities to maintain an adequate level of fire protection service in the City.

The proposed Project would be required to comply with all applicable codes, ordinances, and regulations (including the City's Municipal Code) regarding fire prevention and suppression measures, fire hydrants and sprinkler systems, emergency access, and other fire safety requirements (see RR PS-1). The internal drive aisles would serve as fire access lanes and have been designed to meet WFCD access width and turnaround requirements in the City's Fire Code, and the proposed dwelling units would include automatic fire sprinklers (see RR PS-1).

Development of the proposed Project would be required to comply with all applicable code and ordinance requirements including but not limited to access, water mains, fire flows, and fire hydrants. In addition, the proposed Project would be required to pay all applicable Development Impact Fees (DIFs) including police facilities, fire facilities, park facilities, administration facilities, and public works facilities, as outlined in RR PS-2. Therefore, the Project's potential impacts on public services pertaining to fire protection would be less than significant, and no mitigation is required.

ii) Police protection?

Less than Significant Impact. The West Covina Police Department (WCPD) provides law enforcement services to the City of West Covina. The WCPD provides a full range of police services within two Divisions, the Patrol Division and the Investigative & Support Services Division (ISSD). The WCPD headquarters is in the West Covina City Hall at 1444 West Garvey Avenue. The City is organized into four service areas, Service Area 1 (North), Service Area 2 (East), Service Area 3, (Central), and Service Area 4 (South). Each Service Area is assigned a Lieutenant, so that non-emergency public concerns are quickly addressed (West Covina 2016b). The Project site is located within the WCPD Service Area 1, (North) (WCPD 2020).

The Project would generate a demand for police protection services, once the proposed dwelling units are occupied. The incremental demand of the Project for police protection services is not anticipated to increase WCPD response times to the Project site or surrounding area. The net increase in demand for police protection services is also not anticipated to generate the need for new sworn officers, nor would it require construction of new or physically altered police protection facilities to maintain an adequate level of service to the Project site and surrounding areas.

In accordance with Chapter 17, Article IV, Development Impact Fees of the City's Municipal Code, the Project Applicant would be required to pay the applicable police facility fee for the Project's impact on police protection services (see RR PS-2). Compliance with City regulations would reduce Project impacts to police protection services. Therefore, no physical impacts associated with the provision of police protection services to the proposed Project would occur, and no mitigation is required.

iii) Schools?

Less than Significant Impact. The proposed Project involves the development of 158 dwelling units that would be occupied by approximately 529 residents with potential school-aged children requiring school services from the West Covina Unified School District (WCUSD). The

WCUSD serves over 14,000 students in 15 public elementary and high schools and two charter schools within the City. Students within the WCUSD may choose to attend any school within the boundaries (WCUSD 2020). According to student generation rates for residential land uses within the WCUSD, the Project may generate 28 elementary school students, 15 middle school students, and 24 high school students, for a total of 66 students (City of West Covina 2016b).

The Project would pay school development fees to the WCUSD for the improvement of school facilities that would be needed to serve the Project's demand for school services and facilities (see RR PS-3). As provided under Section 17620 of the *California Education Code* and Section 65970 of the *California Government Code,* the payment of statutory school development fees would fully mitigate a project's impacts on schools. Thus, impacts would be less than significant, and no mitigation is required.

vi) Parks?

Less than Significant Impact. The proposed 158-unit residential development would generate a total of 529 residents, which would increase demand for and use of existing parks and recreational facilities. However, the Project would provide an on-site park and open space for its residences. The Project Applicant would be required to pay a park fee as set forth in section 26-204 of Chapter 26, Article VI, of the City's Municipal Code (RR PS-4). Additionally, the Project Applicant would be required to pay all applicable DIFs, including park facilities, as outlined in RR PS-2. Given the nominal increase in population and payment of park fees (RR PS-2 and RR PS-4), the potential impact would be less than significant, and no mitigation is required. Please refer to Section 4.16, Recreation, below for a detailed discussion of potential park impacts.

vi) Other public facilities?

Less than Significant Impact. The West Covina Library provides library services in the City of West Covina and is located at 1601 West Covina Parkway, approximately 2.4 miles west of the Project site. This library has book and media collections for children, teens, and adults, along with book drops, wi-fi, 12 public computers, 6 children computers, 4 early literacy computers, a photocopier, and a microfilm reader printer (LA County Library 2020). West Covina Library is part of the Los Angeles County libraries. Library members are also able to access other nearby Los Angeles County Public Libraries, such as the Baldwin Park Library, Covina Library, Sunkist Library, El Monte Library, Norwood Library, and Charter Oaks Library, all of which are within eight miles of the West Covina Public Library (West Covina 2016b). Members of the West Covina Public Library have access to the resources of the entire Los Angeles County Public Library system, which includes 87 community libraries and provides library service to over 3.4 million residents living in unincorporated areas and to residents of 49 of the 88 incorporated cities of Los Angeles County.

The Project would generate a demand for library services that would be served by the West Covina Library in the City and other nearby libraries. Due to the limited number of residents from the Project (529 residents), compared to the City's total 2020 population of 105,999 persons, the increase in library service demand is expected to be proportionately 0.5 percent of existing demand and would not result in the need for construction of new or expanded facilities. Therefore, impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

RR PS-1 The Project shall be designed and constructed in accordance with applicable regulations in Chapter 10, Fire Prevention and Protection, of the City of West Covina Municipal Code.

RR PS-2 Pursuant to Chapter 17, Article IV, Development Impact Fees of the City's Municipal Code, prior to issuance of each building permit, the Project Applicant shall be responsible for payment of the City's Development Impact Fees (DIFs) including police facilities, fire facilities, park facilities, administration facilities, and public works facilities, as appropriate and in amounts established by City Council Resolution. The fees paid shall be those in effect at the time of issuance of the building permit, subject to applicable fee credits for community facilities provided as part of the Project.

RR PS-3 The Project Applicant shall pay the applicable school development fee to the West Covina Unified School District, in accordance with Section 17620 of the California Education Code.

RR PS-4 The Project Applicant shall pay the applicable park fee, in accordance with Chapter 26, Article VI, Section 2620 for the purpose of providing park and recreational facilities to serve future residents of the Project development.

Mitigation Measures

Project implementation would not result in significant impacts related to public services; therefore, no mitigation measures are required.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Impact Analysis

Would the Project:

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

Less than Significant Impact. The City's Community Services Division provides for the protection and enhancement of City parks, recreation facilities, and community services. The City of West Covina contains a range of park types that include two small pocket parkettes, eight neighborhood parks, three community parks, two wilderness areas, specialized sports facilities, paseos, and two conservation areas.

The proposed 158 dwelling units would result in a population of approximately 529 residents, which would generate a demand for parks and recreational facilities. The Project proposes one on-site common open space area at the center of the site for a total of 0.27 acre. For single family units, the Walnut Grove Specific Plan requires 100 sf of common useable open space per unit (including paseos and recreational centers) and 150 sf of private open space per unit. For multi-family units, 100 sf of common useable open space per unit and 100 sf of private open space per unit are required. These on-site open space areas are expected to meet some of the demand for recreation facilities generated by residents of the Project. The common open space area at the Project site would have open space amenities, including: three seating areas with a bench; trash receptables; picnic areas with a solid-roof covered structure; a children's tot-lot area with swings and bench seating; open turf areas; and connecting walkways. Project residents would also use nearby City parks and other public and regional parks. Palmview Park is the nearest City park to the Project, located 0.7 mile west of the Project site and is likely to be used by residents of the Project. The park has three picnic shelters, a restroom, fitness equipment, a playground, a baseball field, open space, and two surface parking lots. Due to the small number of residents that would be introduced by the Project, the increase in the use of existing public park facilities by the Project would not be at a level that would result in physical deterioration of existing parks and other recreational facilities, nor would it require the need for new or physically altered facilities. Additionally, as stated in RR PS-2, the Project Applicant would be responsible for paying

park facilities impact fees for the development of new or expanded park facilities in the City. Therefore, impacts would be less than significant, and no mitigation is required.

b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than Significant Impact. As described above, the Project would include common open space areas that would be available for use by residents. These areas would be on the Project site and the physical impacts resulting from the construction of these facilities have been addressed through the impact analysis presented in this IS/MND document. Additionally, the Project Applicant would pay the park facilities impact fees to provide funds for parks facilities to serve Project residents (see RR PS-2, above).

Since the recreation needs of the residents would be partially met on site and through payment of the necessary park fees, the proposed Project would not result in a substantial increased demand for recreational facilities, requiring the construction of new parks that would adversely affect the environment. There are also adequate regional parks and recreational facilities that would serve the Project. Therefore, impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

None required.

Mitigation Measures

Project implementation would not result in significant impacts related to recreation; therefore, no mitigation measures are required.

4.17 TRANSPORTATION

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

Impact Analysis

A Focused Traffic Study was prepared by Psomas for the Project (Psomas 2020). The findings of the Focused Traffic Study are incorporated in the following analyses, and the report is included as Appendix H to this IS/MND.

Existing Study Area Conditions

The two existing major roadways in the immediate Project vicinity are East Rowland Avenue and North Azusa Avenue. East Rowland Avenue is a four-lane divided roadway with on-street parking on both sides. In the vicinity of the Project (east of Lark Ellen Avenue), the roadway is classified as principle arterial by the City of West Covina. The roadway has a posted speed limit of 40 miles per hour (mph). North Azusa Avenue is also a four-lane divided roadway in the project vicinity with on-street parking on both sides of the street. The roadway is classified as a principle arterial by the City, and has a posted speed limit of 40 mph.

Traffic Volumes

Due to the COVID-19 pandemic, traffic volumes were not collected for this study. Instead, daily traffic volumes collected for the Engineering and Traffic Survey prepared for the City in 2017 were obtained for East Rowland Avenue along the frontage of the Project site. The 2017 volume was grown by 1 percent per year to estimate 2020 volumes, resulting in approximately 12,100 vehicles per day on East Rowland Avenue along the frontage of the Project site. The 1 percent per-year growth rate is likely conservative, particularly considering the significant decrease in traffic volumes which has occurred with the COVID-19 pandemic and is expected to continue for an extended period moving forward. In addition, most of the land on both sides of East Rowland Avenue is developed, and the roadway does not serve as a major regional connection. In order to provide estimated peak hour volumes for use in driveway analyses, the general assumptions that 8 percent of traffic occurs in the AM peak hour and 10 percent occurs in the PM peak hour were used. It was further assumed that 60 percent of traffic is eastbound on East Rowland Avenue adjacent to the Project in the AM peak hour, while the reverse is true in the PM peak hour.

Would the Project:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact.

Short-Term Construction-Related Traffic

Construction traffic is not expected to create any significant impact due to the size of the proposed Project. It is anticipated that construction traffic (particularly heavy trucks) would access the site via East Rowland Avenue.

To facilitate the movement of construction traffic and to minimize potential disruptions, traffic control measures would be implemented in accordance with the City requirements and followed during construction (RR HAZ-4). With compliance with City requirements, the Project would not conflict with applicable plans, ordinance, or policy, and Project's impact would be less than significant, and no mitigation is required.

Project Trip Generation

Trip generation represents the amount of traffic that would be generated by a development. Traffic generation rates for the existing use on site and the proposed Project have been derived from the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 10th Edition, as shown on Table 4-26, Project Trip Generation.

Based on the Focused Traffic Study, the proposed Project is anticipated to generate a total of 1,124 trips per day, with approximately 82 AM peak hour trips and 106 PM peak hour trips.

Trip generation for the existing uses was not estimated for this analysis, because the existing use does not currently generate trips.

TABLE 4-26
PROJECT TRIP GENERATION

ITE LU 210 - Single-Family Detached Housing						
Units			**66**			
Period	**Trips/Unit**	**Trips**	**% In**	**% Out**	**Trips In**	**Trips Out**
AM Peak	0.74	49	25%	75%	12	37
PM Peak	0.99	65	63%	37%	41	24
Daily	9.44	623	50%	50%	312	312
ITE LU 221 – Multi-Family Housing (Mid-Rise)						
AM Peak	0.36	33	26%	74%	9	25
PM Peak	0.44	40	61%	39%	25	16
Daily	5.44	500	50%	50%	250	250
Total						
Units			**158**			
Period	**Trips**		**Trips In**		**Trips Out**	
AM Peak	82		21		61	
PM Peak	106		66		40	
Daily	1,124		562		562	

Source: Psomas 2020.

Project Traffic Operations

The City of West Covina recently adopted the use of Vehicle Miles Traveled (VMT) analysis methodology for evaluating potential traffic impacts for development projects. The City has also elected to continue to use Level of Service (LOS) analyses for planning purposes. However, due to the COVID-19 pandemic, traffic volumes are far below normal, and therefore, the data collection needed to serve the LOS analysis is infeasible. However, per a scoping agreement, this report would include various site analyses including queuing, turning movements, sight distance, and circulation. The scoping agreement is included in Appendix H of this IS/MND. Although LOS analysis is not required, the anticipated queuing at the site driveways was evaluated. Because the driveways would only exist with the Project, the analysis was only completed for 2022 (opening year) conditions with the Project. Both driveways would operate with stop control on the driveway, so the only movements, which are expected to experience queuing are the southbound turns exiting the Project site and the eastbound left turns into the site at the west driveway. All of those movements were found to have queues of less than one vehicle in both peak hours.

The limited number of vehicle trips generated by the proposed Project would not cause significant impacts at roadways and intersections near the site and in the surrounding area. Therefore, the Project would not conflict with applicable policies, plans, ordinance, or programs related to the circulation systems, nor would it affect the performance of the surrounding intersections. Impacts would be less than significant, and no mitigation is required.

In terms of public transportation, the nearest bus routes to the Project site include: Bus Route 280 (on Azusa Avenue) and Bus Route 488 (along East Rowland Avenue). Although there have been some changes to transit service due to the COVID-19 pandemic, the Foothill Transit bus lines in the Project area are still operating as usual.

Sidewalks are present on East Rowland Avenue, which would be retained by the Project and would continue to accommodate pedestrians and bicyclists. The Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Impacts would be less than significant, and no mitigation is required.

Parking

Because this is a Specific Plan project, the parking requirements are specified separately from the typical City standards. Per the Specific Plan, the Project is required to provide two parking spaces per unit and 0.5 guest parking spaces per unit. This would result in required 316 parking spaces for residents and 79 spaces for guests. As shown in the site plan, each unit would include a 2-car garage, which meets the residential parking requirement for the Specific Plan by providing 316 resident parking spaces. In addition, there would be 99 guest parking spaces located throughout the site, which exceeds the required number of guest spaces by 20 spaces. Impacts would be less than significant, and no mitigation is required. Based on Section 26-506 – Off Street Parking of the City's Zoning Code, the Project would be required to provide 2 parking spaces per unit in an enclosed garage and 1 guest space for every four units (or 0.25 space per unit). This would result in a required 316 parking spaces for residents and 40 spaces for guests.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact. State CEQA Guidelines Section 15064.3, subdivision (b) provides the criteria for analyzing transportation impacts, and a project's effect on automobile delay shall not constitute a significant environmental impact. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. Vehicle miles traveled (VMT) refers to the amount and distance of automobile travel attributable to a project. According to the State of California's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, "certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor would have a less than significant impact on VMT" (OPR 2018). The City of West Covina recently adopted the use of Vehicle Miles Traveled (VMT) analysis methodology for evaluating potential traffic impacts for development projects. The Project is located within a Transit Priority Area (TPA) and is exempt from a full VMT analysis by the City. Although there have been some changes to transit service due to the COVID-19 pandemic, it was confirmed that the Foothill Transit bus lines in the Project area are still operating as usual. Therefore, the TPA exemption is still valid. The proposed Project would have a less than significant impact on VMT, and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?

Less than Significant Impact. Construction of the Project would require the transport of construction equipment and building materials to and from the site, as well as the hauling of demolition and construction debris from the site. Large trucks used for these activities would have to use designated truck routes in the City, in compliance with Chapter 22, Division 5, Truck Routes, of the Municipal Code (RR TRA-1). Roadway hazards from these trucks and equipment would be less than significant.

The Project would have two access points onto East Rowland Avenue. The on-site driveway, drive aisles, and cul-de-sacs would comply with City roadway standards for adequate sight distance (RR TRA-2). It is anticipated that the median on East Rowland Avenue would be reconstructed to provide full access at the west driveway of the Project, as the existing median opening is slightly east of the proposed west driveway location. The median reconstruction would also include a left-turn cutout to allow left turns directly into the Project site (PDF TRA-1). With the proposed improvement, all proposed dwelling units would have access to both driveways.

The existing conditions of the site and its surrounding area includes curb parking along the northern side of East Rowland Avenue, at the Project frontage. However, to provide the two access points from East Rowland Avenue to the Project site, site visibility would be impaired if cars were to be parked along East Rowland Avenue. However, to address this issue, much of the curb on the north side of East Rowland Avenue along the Project frontage would be painted red to prohibit parking and to provide sufficient site distance (PDF TRA-2). This would provide site visibility for vehicles and other roadway users and reduce potential hazards from dangerous intersections. The queues for vehicles entering and existing the site are expected to be minimal, and traffic projections for East Rowland Avenue indicate that the roadway is operating far under its capacity.

Therefore, with implementation of the said planned improvements, impacts from hazards due to a geometric design feature would be less than significant, and no mitigation is required. Thus, it would not interfere with access, circulation, or activities at the surrounding land uses. Additionally, the Project would not introduce an incompatible use that may create a traffic hazard to surrounding residences.

d) Result in inadequate emergency access?

Less than Significant Impact. During demolition and construction, construction equipment would be staged on the Project site and would not block the roadways surrounding the Project site. Construction on and obstruction of public rights-of-way associated with utility connections to existing utility infrastructure would be made in accordance with applicable City regulations, including City Standard Plans, Section 19-302, Standard Specifications for Public Works Construction (Greenbook), of the Municipal Code (Greenbook) (see RR HAZ-4). No full road closures would occur during the construction phase of the Project. Accordingly, temporary construction activities would not impede the use of surrounding roadways for emergency evacuation or access for emergency response vehicles. Adjacent streets would also be returned to their original conditions after construction activities. Impacts would be temporary and less than significant, and no mitigation is required.

At the north end of the Project site, the existing North Eileen Street cul-de-sac extends onto the Project site. The cul-de-sac would remain as an emergency access point only for the Project–all other site traffic would not have access to North Eileen Street. A driveway cutout would be provided in the cul-de-sac for emergency vehicles, along which parking would not be allowed. It is expected that on-street parking would remain available along the remaining areas of the North Eileen Street cul-de-sac. Access to individual dwelling units on the site would be provided by internal drive aisles and from both access points to the Project site. These would be subject to review and approval by the City of West Covina Fire Department to ensure adequate access for emergency vehicles, as required under RR PS-1 in Section 4.15, Public Services. Truck turning

movement evaluations in the Focused Traffic Study show that although trash (and potentially delivery) trucks would back out of the drive aisles into the main site circulation aisles, the trucks are expected to be able to maneuver throughout the site. In addition, the drive aisles and cul-de-sacs would comply with City roadway standards for adequate sight distance, implemented by improvements discussed above. As designed, the proposed Project would provide adequate emergency access. Impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

RR TRA-1 All trucks used during demolition and construction and during long-term occupancy of the Project shall use designated truck routes, in compliance with Chapter 22, Division 5, Truck Routes, of the West Covina Municipal Code.

RR TRA-2 The Project shall be designed and constructed to provide adequate sight distance for drivers at all entrances and exits (driveways), drive aisles, and roadways, per West Covina Municipal Code Section 22.8, Obstruction to Visibility at Intersections or Driveways.

Project Design Features

PDF TRA-1 The Project Applicant shall implement a left-in turn-pocket for eastbound traffic on East Rowland Avenue and left-out turn movements from the Project entrance. The new turn pocket will require modifications to the existing median to align the new turn-pocket with the Project entrance. Final engineering will determine the precise dimensions and details of the proposed turn-pocket and the required median modifications.

PDF TRA-2 The Project Applicant shall implement red curbing along the Project frontage on East Rowland based on line of site distance determined during final engineering to identify the limits of guest parking along the frontage.

Mitigation Measures

Project implementation would not result in significant impacts related to transportation; therefore, no mitigation measures are required.

4.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

This section evaluates the Project's potential to have adverse effects on Tribal Cultural Resources. The analysis in this section is based on the results of the archaeological record searches conducted by Psomas and consultation with California Native American Tribes, conducted by the City of West Covina for the Project, as required by CEQA per Assembly Bill 52 (AB 52) and Senate Bill 18 (AB 18).

An inquiry was made to the Native American Heritage Commission (NAHC) by Psomas to request a review of the Sacred Lands File (SLF) database regarding the possibility of Native American cultural resources and/or sacred places in the Project vicinity that are not documented on other databases. The NAHC completed its SLF search on July 15, 2020. The NAHC SLF did not identify the presence of Native American traditional sites/places within the Project site or the immediate vicinity of the site.

The City of West Covina initiated consultation on August 20, 2020 by notifying the City's consultation list of the Walnut Grove Project, located at 1561 East Rowland Avenue, as required by AB-52 and SB 18. One Tribe, the Gabrieleno Band of Mission Indians – Kizh Nation, requested to participate in consultation with the City. Consultation between the lead agency, the City of West Covina, and the Kizh Nation took place on September 3, 2020 at 11:00 AM. During the consultation, the Applicant indicated that ground disturbing activities would be isolated to 2-4 feet within soil that may have been imported from a secondary location during the construction of the existing school during the 1950's.

The Tribe requested documentation that the original, native soil was exported from the Project site during the construction of the school during the 1950's. Specifically, they requested trucking invoices that proved someone was hired to relocate the native sediment. The Tribe's primary concern is that the original material was mixed with imported soil to backfill the site. This is a

concern for the Kizh Nation because the original material, although disturbed, may contain human remains (cremated) and resources related to a prehistoric village site.

Although the Applicant indicted that the Pioneer school did not document if the excavated soil was exported or reused as backfill, the Project will submit a soil analysis (geo-technical report) to confirm that the first five feet of soil (the imported fill) is different from the native sediment that underlies the Project site. The Kizh Nation indicated that the soil analysis would reduce their concerns regarding earth moving activities within the first five feet of soil.

The City contacted the Tribe on September 16th because based on the site research, the native sediment was removed and subsequently mixed with artificial fill to backfill the site during the construction of the Pioneer school during the 1950s. The Kizh Nation requested the Project implement Native American monitoring to ensure that the Project does not impact any human remains or buried resources related to the prehistoric village site. The City and the Kizh Nation agreed to implement Native American monitoring during grading activities within the first five feet of soil. Consultation was closed after the mitigation was agreed upon on November 6, 2020.

Impact Analysis

Would the Project:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Less than Significant Impact with Mitigation. As discussed in Section 4.5, Cultural Resources, the SCCIC record search and literature review did not identify any previously recorded prehistoric or historic archaeological sites or historic structures within the Project site. Furthermore, the SLF search did not identify the Project site as sensitive for known sacred lands/ sites. As such, there are no known tribal cultural resources within the Project site. However, the absence of known cultural resources in the Project site does not preclude the possible presence of undiscovered cultural resources, including tribal cultural resources, that may lie in the subsurface. The soil analysis for the Project site indicates that the underlying soil contains native sediment and artificial fill that was excavated and redeposited during the construction of the existing Pioneer school. Although the native sediment has been disturbed, the Project may encounter cultural or tribal cultural resources during earth moving activities. To mitigate this potential effect, the Project would implement Native American monitoring (MM TCR-1) during construction grading activities within the first five feet of the soil. Thus, impacts to tribal cultural resources that are listed or may be eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), are considered less than significant with mitigation.

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

Less than Significant Impact with Mitigation. The Project site does not contain any known resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. However, the tribal consultation between the Gabrieleno Band of Mission Indians – Kizh Nation and the City of West Covina indicated that the Project site may contain buried resources related to human burials, cremated remains, and/or resources pertaining to a prehistoric village site. If discovered, these resources may be considered significant to a California Native American tribe.

To mitigate these potential effects, the Project would implement MM TCR-1 developed with and agreed upon by the City of West Covina and the consulting Tribe, the Gabrieleno Band of Mission Indians – Kizh Nation. MM TCR-1 prescribes Native American monitoring during construction grading activities within the first five feet of the soil to ensure the Project does not adversely impact unknown buried tribal cultural resources. Furthermore, the discovery of human remains will comply with existing regulatory requirements (RR TCR-1).

In compliance with State and federal regulations, if human remains are encountered during excavation activities, all work shall halt at the site and or any nearby areas reasonably suspected to overlie adjacent remains, and the County Coroner shall be notified. The Coroner shall determine whether the remains are of forensic interest within two working days of receiving notification. If the Coroner, with the aid of the qualified Archaeologist, determines that the remains are prehistoric and the find is on federal land, the Coroner shall notify the field archaeologist of the appropriate federal agency for the proper treatment and/or disposition of the remains. If the find is on non-federal lands, the Coroner shall contact the NAHC within 24 hours of the determination. The NAHC shall be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the California Public Resources Code.

The implementation of RR TCR-1 and MM TCR-1 would ensure the Project would not have a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency *or a California Native American tribe,* in its discretion and supported by substantial evidence, as defined in Public Resources Code Section 21074 and 5024.1. Thus, impacts are considered less than significant with mitigation.

Regulatory Requirements

RR TCR-1 If human remains are encountered during any Project-related ground-disturbing activities, Section 7050.5 of the *California Health and Safety Code* states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition of the materials pursuant to Section 5097.98 of the *California Public Resources Code.* The provisions of Section 15064.5 of the California Environmental Quality Act Guidelines shall also be followed. The

County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC). The NAHC will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. These requirements shall be included as notes on the contractor specification and verified by the Community Development Department, prior to issuance of grading permits. This measure shall be implemented to the satisfaction of the City in consultation with the County Coroner.

Mitigation Measures

MM TCR-1 Prior to the commencement of any ground disturbing activity at the Project site, the Project Applicant shall retain a Native American Monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation (the tribe that consulted on this Project, pursuant to Assembly Bill A52 [the "Tribe" or the "Consulting Tribe"]) and the City of West Covina. A copy of the executed contract shall be submitted to the City of West Covina Planning and Building Department prior to the issuance of any permit necessary to commence a ground-disturbing activity. The Tribal Monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the Project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when all ground-disturbing activities on the Project site are completed, or when the Tribal Representatives and Tribal Monitor, in consultation with the City and the Applicant, have indicated that all upcoming ground-disturbing activities at the Project site have little to no potential for impacting Tribal Cultural Resources or when activities occur within previously disturbed soil that was observed by the on-site Tribal Monitor. Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by Project activities shall be evaluated by the qualified archaeologist and Tribal Monitor approved by the Consulting Tribe. If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes. If human remains and/or grave goods are discovered or recognized at the Project site, all ground disturbance shall immediately cease, and the county coroner shall be notified per Public Resources Code Section 5097.98, and Health & Safety Code Section 7050.5. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Work may continue on other parts of the Project site while evaluation and, if necessary, mitigation takes

place (CEQA Guidelines Section 15064.5[f]). If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and PRC Sections 21083.2(b) for unique archaeological resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purpose.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

Would the Project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact.

Water

Water service for the Project would be provided by Suburban Water Systems. Approximately 80 percent of water from Suburban Water Systems is supplied from wells within the San Gabriel Valley and Central Basins. The onsite water system would be a minimum of an 8-inch water line that would provide both domestic and fire service to the site. Exhibit 3-8, Conceptual Utility Plan, shows the layout of the proposed water improvements.

The proposed development is estimated to create a water demand of 30,589 gpd or 34.3 acre-feet per year (afy)[1]. With the elimination of water demand from the existing school use, the net water demand is not anticipated to be significantly different, and upgrades to existing water lines would not be anticipated. Water service to the Project would also be provided in compliance with Chapter 23, Article III, Water of the West Covina Municipal Code, which sets regulations for service connections, water rates, and other water system provisions (see RR UTL-1).

Prior to the issuance of the building permit, the applicant would be required to verify that the City's water system can accommodate the proposed Project's fire flows and potable water demand. The estimated water demand of the Project is not expected to exceed available supplies or the available capacity within the distribution infrastructure that would serve the Project site. Based on the analysis above, the Project would not require or result in the relocation or construction of new or expanded water facilities, which would cause significant environmental effects. The Project would comply with RR UTL-1. Impacts would be less than significant, and no mitigation required.

Wastewater Treatment/Storm Drainage

The City of West Covina Public Services Department (Maintenance Division) maintains the City's sewer system. Wastewater from the City's system is treated by the Los Angeles County Sanitation District (LACSD). West Covina's wastewater is treated and disposed of at the LACSD's San Jose Creek Water Reclamation Plant (SJCWRP) and/or the Whittier Narrows Reclamation Plant (WNRP). West Covina is spread across three LACSD sanitation districts: 15, 21, and 22. The SJCWRP has a maximum permitted capacity of 100 million gallons of wastewater per day (mgd) and serves a large residential population of approximately one million people. The SJCWRP treats an average flow of 65.7 mgd (LACSD 2020a). The WNRP has a maximum permitted capacity of 15 mgd and serves a population of approximately 150,000 people. Currently, the WNRP treats an average flow of 7 mgd (LACSD 2020b). Within each sanitation district there are differing sewer connection fees. Connection fees are paid for by the connection of new service, expansion of service, change of use category, demolition or rebuilding of a facility, and application for an industrial wastewater permit (City of West Covina 2016b).

The Project would convey sewage through an onsite 8-inch polyvinyl chloride (PVC) sewer line and 4-inch PVC laterals, which would tie into the existing sewer main in East Rowland Avenue, as shown in Exhibit 3-8. As stated above, SJCWRP has a maximum permitted capacity of 100 mgd and treats an average flow of 65.7 mgd. The remaining available capacity is 34.3 mgd. WNRP has a capacity of 15 mgd and treats an average flow of 7 mgd, which leaves an available capacity of 8 mgd. The Project is estimated to generate 24,648 gpd of wastewater, based on LACSD's generation rate source of 156 gpd/residential unit. This would be less than 0.1 mgd of the available capacity. Wastewater generation of the Project would increase the demand of SJCWRP

[1] Assumptions:
1. Indoor residential water use at 55 gpcd based on State Department of Water Resources goal of new residential construction. (The rest of the assumptions are on the following page, as footnote)
2. Private yard area at 150 sf per unit for single family units and 100 sf for multi-family units with 50 percent landscape and 50 percent hardscape.
3. Project common area at 100 sf per unit with 75 percent landscape and 25 percent hardscape.
4. Neighborhood park at 0.27 acre (11,761 sf) with 90 percent landscape and 10 percent hardscape.
5. Total landscape irrigation use is based on State Model Water Efficient Landscape Ordinance (MWELO) using 50 inches for local evapotranspiration rate and an evapotranspiration adjust factor of 0.55 for residential landscaping.

and WNRP by less than 0.1 percent. Given the existing capacities at SJCWRP and WNRP, both facilities would be able to serve the Project. Additionally, payment of the LACSD capital facilities capacity charges would provide funds for the incremental increase in demand for wastewater treatment that would occur with the Project (see RR UTL-2).

Under existing conditions within the Project area, prevailing drainage is southwesterly at a rate of one percent. The City of West Covina holds storm drain easements over strips of land along the north and west side of the Project site. An existing earthen swale within these easement strips conveys runoff from a portion of the Project site, the residential property along North Eileen Street north of the Project site, and a portion of the Food 4 Less/Big Lots shopping center adjacent to the northeast corner of the Project site. This swale outlets through an existing parkway drain onto East Rowland Avenue at the southwest corner of the Project site. The drainage area of the properties along North Eileen Street and the shopping center, which contribute storm runoff to the Project site, is approximately 5.8 acres. The tributary areas are fairly equally split between the two land uses. Runoff from the shopping center is picked up in a catch basin at the southwest corner of the Project site and is then conveyed via pipe underground along the adjacent westerly residential property to the earthen swale west side of North Eileen Street on the Project site. A curb depression was also constructed at this location to discharge runoff from North Eileen Street into the swale. The pipe drainage and the runoff from North Eileen Street meanders along the swale to the parkway drain outlet at East Rowland Avenue. Approximately 70 percent of the Project site currently drains to the swale as well. The remaining percentage of the Project site, which contains mostly of impervious surfaces, drains out to East Rowland Avenue by sheet flowing through the southeastern portion of the Project site (DJP Engineering 2020).

As part of the Project, a private storm drain system located within the main drive aisles would convey the Project's stormwater runoff to an underground detention system in the guest parking lot adjacent to East Rowland Avenue. Stormwater would infiltrate and be detained and meter the runoff onto East Rowland Avenue, to match historical drainage patterns and volumes. In addition, stormwater from North Eileen Avenue would be intercepted and re-routed through the onsite storm drain system. This would allow for abandonment of the existing storm drain swale and easement along the westerly boundary of the site, and improved drainage for the area. Exhibit 3-8, Conceptual Utility Plan, shows the layout of the proposed storm drain improvements.

The storm water runoff from the Project site would not exceed the capacity of the existing storm drain system, and no infrastructure improvements would be required beyond the installation of on-site storm drain facilities. The construction of the on-site water quality BMPs and storm drain lines within the Project site has the potential for temporary construction-related impacts. Since utility installations are within the construction impact limits identified for the proposed Project, the potential impacts associated with the construction of storm drain lines have been addressed in the respective sections of this IS/MND. No impacts would occur, and no mitigation is required.

Electricity

Southern California Edison (SCE) currently provides electricity to the City of West Covina, including the Project Site (SCE 2020). The Project's projected electricity usage is shown in Table 4-10, Energy Use During Operations. Electrical service to the Project site would be provided in accordance with SCE's policies and extension rules on file with the California Public Utilities

Commission (CPUC). Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to electricity would not occur. Additionally, the Project Applicant will coordinate with SCE to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and no mitigation is required.

Natural Gas

The Southern California Gas Company (SCGC) currently provides natural gas service to the City of West Covina, including the Project site (SCGC 2020). The Project's projected natural gas usage is shown in Table 4-10, Energy Use During Operations. The service would be provided in accordance with SCGC's policies and extension rules on file with the CPUC. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to natural gas would not occur. Additionally, the Project Applicant would coordinate with SCGC to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and no mitigation is required.

Telecommunications

Verizon provides telecommunications service to the area, including the Project site. The service would be provided in accordance with Verizon's policies and extension rules on file with the CPUC. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to telecommunications would not occur. Additionally, the Project Applicant would coordinate with Verizon to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and mitigation is not required.

The Project would not require the construction or expansion of water or wastewater infrastructure and treatment facilities, storm water drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant Impact. As stated in response to Threshold 4.19a above, water service for the Project would be provided by Suburban Water Systems. Approximately 80 percent of water from Suburban Water Systems is supplied from wells within the San Gabriel Valley and Central Basins. As indicated under Threshold (a) on page 4-100, above, the proposed development is estimated to create a water demand of 30,589 gpd or 34.3 afy. The assumptions for these calculations are included on that page as a foot note.

With the elimination of water demand from the existing school use, the net water demand is not anticipated to be significantly different, and upgrades to existing water lines would not be anticipated. Water service to the Project would also be provided in compliance Chapter 23, Article III, Water of the West Covina Municipal Code, which sets regulations for service connections, water rates, and other water system provisions (see RR UTL-1).

Suburban Water Systems (Suburban) is a retail water company that provides water to the City of West Covina in addition to eight other cities. Based on Suburban's 2015 Urban Water Management Plan (UWMP), it services approximately 300,000 people within its service boundary, which is primarily divided into two main service areas, the San Jose Hills and the Whittier/La Mirada service areas. The City of West Covina is within the San Jose Hills Service Area (Suburban 2015).

As identified in the UWMP, water demand (potable and raw) for single family residential in the San Jose Service Area was projected at 14,854 acre-feet (af) through the year 2040. It should be noted that Suburban does not differentiate between single-family and multi-family uses, and all residential demands have been included under the single-family category. The UWMP identifies the water supplies needed to meet future demand and includes current and planned conservation measures to reduce water demand. It takes into consideration projected growth within the service area and availability of future water supplies. As discussed in the 2015 UWMP, Suburban has sufficient water supply and is cable of meeting future water demands during normal, single-dry, and multiple-dry years through the year 2040.

The Project would comply with Sections 4.303 and 4.304 of the CALGreen Code (as adopted by the City), which require indoor and outdoor water conservation measures such as low flush toilets, aerators on sinks and showerheads, other water-efficient appliances, and water-efficient automatic irrigation system controllers. Compliance with these regulations and programs is provided as RR UTL-3.

The increase in water demand generated by the proposed Project would be minimal; would be served by the City with minor impacts on current water supplies; and is within the projected growth and increased water demand within City's service area. With compliance with the City's water conservation measures, the proposed Project would not significantly impact the City's domestic water supply. Impacts would be less than significant, and no mitigation is 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. As estimated above, the proposed Project would generate approximately 24,648 gpd of wastewater. As stated above, SJCWRP has a maximum permitted capacity of 100 mgd and treats an average flow of 65.7 mgd. The remaining available capacity is 34.3 mgd. WNRP has a capacity of 15 mgd and treats an average flow of 7 mgd, which leaves an available capacity of 8 mgd. The Project is estimated to generate 24,648 gpd of wastewater, based on LACSD's generation rate source of 156 gpd/residential unit. This would be less than 0.1 mgd of the available capacity. Wastewater generation of the Project would increase the demand of SJCWRP and WNRP by less than 0.1 percent. The Project would also pay LACSD capital facilities capacity charges to fund wastewater treatment that would be needed by the Project (see RR UTL-2). The Project would not exceed the capacities of the wastewater treatment facilities. Impacts would be less than significant, and no mitigation is 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?

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

Less than Significant Impact. The City of West Covina contracts with Athens Services to provide trash, recycling, and special pickup services throughout the City. Athens Services provides trash and recycling collection service to residences, as well as all commercial, governmental, and industrial facilities within West Covina (City of West Covina 2016a). Waste collected by Athens Services within the City is taken to a Materials Recovery Facility (MRF) in the City of Industry, which accepts trash as well as commingled materials such as glass, plastic, cardboard, etc. that is sorted and separate at the facility. The City of Industry MRF can process 5,000 tons of mixed material each day (City of West Covina 2016a). Solid waste that is not diverted is disposed of at the Victorville Sanitary Landfill, a Class III (i.e., municipal waste) landfill located in the City of Victorville. Victorville Sanitary Landfill is owned and operated by the County of San Bernardino Solid Waste Management Division. The landfill has a permitted daily throughput of 3,000 tons/day, a max permitted capacity of 83,200,000 cubic yards, and an estimated remaining capacity of 81,510,000 (CalRecycle 2020). The City's solid waste disposal activities are required to be in compliance with the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939). AB 939 requires jurisdictions to meet the statewide goal to divert 25 percent and 50 percent of solid waste generated by year 1995 and 2000.

The proposed Project involves demolition of the existing structures and paved surfaces on the Project site, which would generate 100 truckloads of demolition debris to be hauled off site. In accordance with Section 4.408 of the CALGreen Code, at least 65 percent of demolition and construction debris would need to be diverted from landfills by recycling, reuse, and/or salvage (see RR UTL-4). Chapter 7, Article XVI, Waste Reduction, Reuse and Recycling of Construction and Demolition Debris, of the City's Municipal Code, outlines the requirements for diverting construction waste into landfills for every "covered project" as set forth in section 7-261(a) and (b). Construction and demolition wastes are required to be made available for deconstruction, salvage, and recovery prior to demolition. Further, demolition and construction waste requires diversion of a minimum of 65 percent of the construction and demolition debris resulting from that project in compliance with state and local statutory goals and policies and to create a mechanism to secure compliance with the stated diversion requirements.

Project implementation would result in the development of 158 single and multi-family residential units. Based on a solid waste generation rate of 4.48 pounds per person per day, assuming a maximum occupancy of 529, the Project's residential uses would generate approximately 2,386 pounds of trash per day (USEPA 2020). The Victorville Sanitary Landfill with remaining capacity of 81,510,000 and an anticipated closure date of October 1, 2047 would accommodate the short-term disposal of construction and demolition wastes from the Project.

On October 6, 2011, the California Governor signed AB 341, establishing a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020. The bill also mandates local jurisdictions to implement commercial recycling by July 1, 2012 for businesses and public entities generating four cubic yards of trash or more and multi-family residential dwellings with five or more units. Solid waste storage and collection at the

Project would comply with Chapter 12, Garbage and Rubbish Collection, of the Municipal Code. The proposed residences would have regular waste collection services; be provided with recycling bins to promote residential recycling; and be encouraged to participate in the City's solid waste diversion programs.

As discussed in Section 4.9, Hazards and Hazardous Materials, of this IS/MND, hazardous wastes generated during demolition and construction activities would be disposed of in accordance with existing regulations (including RR HAZ-2 and RR HAZ-3 for the handling of ACM wastes and RR HAZ-1 for the handling of LBP). Similarly, hazardous material used during construction and occupancy of the proposed Project, including maintenance activities, would be conducted in compliance with applicable regulations.

Solid waste generation during demolition and construction activities for the proposed Project would be short-term and could be accommodated within the remaining capacities of the Victorville Sanitary Landfill. No conflict with statutes and regulations related to solid waste would occur. Thus, the Project would result in less than significant impact, and no mitigation is required.

Regulatory Requirements

RR UTL-1 Water service to the Project, including application for water service, service connections, water rates, fire service, and water mains, shall be constructed and provided in accordance with Chapter 23, Article III, Water, of the West Covina Municipal Code.

RR UTL-2 The Project Applicant shall pay the applicable Connection Fee Program capital facilities fees to the Los Angeles County Sanitation District (LACSD), as authorized by the California Health and Safety Code Sections 5400 to 5474.

RR UTL-3 The Project shall be designed and constructed with water-efficient fixtures and systems, as required by the CALGreen Code, which has been adopted by reference into Section 7-301, Adoption of Title 31 (Green Building Standards Code), of the West Covina Municipal Code.

RR UTL-4 The Project contractor shall recycle, reuse, and/or salvage at least 65 percent of demolition and construction debris, in accordance with Section 4.408 of the CALGreen Code.

Mitigation Measures

Project implementation would not result in significant impacts related to utilities and service systems; therefore, no mitigation measures are required.

4.20 WILDFIRE

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

Impact Analysis

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?

No Impact. The proposed Project is not within a designated Very High Fire Hazard Severity Zones (VHFHSZ), as defined by the California Department of Forestry and Fire Prevention (CalFire). The nearest designated disaster route to the Project site is Azusa Boulevard, which is approximately 340 feet east of the site (City of West Covina 2008). The nearest designated freeway disaster route is I-10 freeway, located 0.47-mile south of the site. Temporary lane closures on adjacent streets (East Rowland Avenue, East Pioneer Drive, and/or North Eileen Street) may be required during the short-term construction period in order to connect the proposed Project to the existing utility infrastructure within these roadways. However, Project construction would not involve full closure of any public roadway during construction. Implementation of traffic control measures during construction in accordance with Chapter 19, Article X, Section 19-302, Standard Specifications for Public Works Construction, of the Municipal Code, which adopts the Greenbook by reference (see RR HAZ-4), would further reduce the potential for traffic hazards and the obstruction of access to adjacent parcels. Additionally, because Checklist Response thresholds 4.20a through 4.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

In the long-term, the Project would provide an access driveway off North Eileen Street that would be used for emergency response to the site and for emergency evacuation of the site, in addition to two primary ingress and egress points, located on East Rowland Avenue, on the southern

boundary of the Project site. The Project would not affect emergency response or emergency evacuation of adjacent land uses. Additionally, East Rowland Avenue, East Pioneer Drive, and/or North Eileen Street are not designated evacuation corridors at the City. No impact would occur, 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?

No Impact. As indicated in Checklist Response 4.9.g, Hazards and Hazardous Materials, the Project site is in a highly urbanized area of the City, and there are no large, undeveloped areas and/or steep slopes on or near the site that would exacerbate fire risks such that would expose the Project and its occupants to wildfire related hazards. The site and the surrounding areas are not located in designated VHFHSZ, as identified by CalFire. Rather, the site is within a Non-VHFHSZ area. Additionally, based on review of the Natural Hazard Mitigation Plan, the Project site is not located within designated Wildland Very High Fire Hazard Areas or Wildland High Fire Hazard Areas (West Covina 2011). Therefore, the Project is not expected to exacerbate wildfire risks and create pollutants associated with wildfire or uncontrolled spread of wildfire. Additionally, because Checklist Response thresholds 4.20a through 4.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is 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. As previously described, the proposed Project is not within a designated VHFHSZ as defined by CalFire. As discussed in Section 3.0, Project Description, the site is located in a highly urbanized area and surrounded by developed land on all sides. While Project construction may result in temporary lane closures, it would not involve full closure of any public roadway during construction. Implementation of traffic control measures during construction (see RR HAZ-4), would reduce the potential for traffic hazards and the obstruction of access to adjacent parcels. All proposed structures would be constructed to meet current building and fire codes. Implementation of the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Additionally, because Checklist Response thresholds 4.20a through 4.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

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

No Impact. As previously described, the proposed Project is not within a designated VHFHSZ as defined by CalFire. The Project is in a highly urbanized area that is in a generally flat topographical area away from downslope or landslide areas. Proposed drainage changes are described in Section 4.10, Hydrology and Water Quality. Specifically, implementation of the

Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Additionally, because Checklist Response thresholds 4.20a through 4.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

Regulatory Requirements

RR HAZ-4, in Section 4.9, Hazards and Hazardous Materials, would be applicable to this topic.

Mitigation Measures

Project implementation would not result in significant impacts related to wildfire; therefore, no mitigation measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant 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?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ('Cumulatively considerable' means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis:

Would the Project:

a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation. There are no sensitive biological resources, habitats, or species on the Project site that would be affected by the Project. As indicated in Section 4.4, Biological Resources, of this IS/MND, given the current developed condition and the existing trees and shrubs on the site, migratory birds may nest on the vegetation on-site. However, MM BIO-1 would avoid impacts to active bird nests during construction of the Project. Impacts on migratory birds would be less than significant after mitigation.

There are no historic resources on the Project site that would be impacted by the proposed Project. Additionally, implementation of MM CUL-1 would prevent or reduce impacts on buried archaeological resources and tribal cultural resources that may be uncovered during grading and excavation activities. Implementation of MM GEO-2 would also mitigate impacts on paleontological resources. Implementation of MM TCR-1 would reduce impacts to tribal cultural resources to less than significant. With implementation of these mitigation measures, the Project's potential impacts on cultural resources and tribal cultural resources would be less than significant.

Therefore, the Project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; 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. Impacts would be less than significant with mitigation.

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

Less than Significant Impact. As identified in the preceding analyses, all Project-level impacts have been determined to be less than significant with or without compliance with regulatory requirements or mitigated to a level considered less than significant with incorporation of mitigation measures. While the Project would contribute to potential environmental effects related to biological resources, cultural resources, geology and soils, noise, and tribal cultural resources these impacts would not be cumulatively considerable, since mitigation measures would be implemented to avoid or reduce potential Project-specific impacts associated with these environmental issues. As discussed in Section 4.3, Air Quality, and Section 4.8, Greenhouse Gas Emissions, of this IS/MND, the Project's air quality and GHG emissions impacts would be less than significant and its impacts would not be considered cumulatively considerable.

Review of the City's development shows that no new development or redevelopment is planned adjacent to the site that would occur concurrently with Project construction (City of West Covina 2020c). Development projects would be subject to environmental review by the City, pursuant to CEQA, the State CEQA Guidelines, and the City's Local CEQA Guidelines, to determine if they would lead to cumulative environmental effects as part of the appropriate CEQA analysis for each project. Since the proposed Project would not have significant impacts after mitigation, the impacts of the Project are not expected to result in cumulatively considerable impacts when added to the impacts of other projects planned or proposed in the vicinity of the site. Cumulative impacts would be less than significant, and no mitigation is required.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact with Mitigation. Based on the environmental analyses above, with compliance with applicable regulatory requirements and/or the implementation of mitigation measures, the Project would have less than significant impacts on humans, as it relates to the following environmental issue areas: aesthetics, agriculture and forestry resources, air quality, energy, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire.

The proposed Project's impacts on the following issue areas would be significant and would require the implementation of mitigation measures: biological resources, cultural resources, geology and soils, noise, and tribal cultural resources. All impacts would be avoided or reduced to less than significant levels after mitigation.

Therefore, the proposed Project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of mitigation measures. All impacts would be less than significant after mitigation.

5.0 REFERENCES

Burns, Jo-Anne. 2020 (September 29). Email from J. Burns (City of West Covina Planning Division) to T. Cheung (Psomas) entitled "Re: Possible Source of Construction Noise Threshold - 80 dBA".

California Air Pollution Control Officers Association (CAPCOA). 2016. California Emission Estimator Model (CalEEMod)$_{TM}$ Version 2016.3.2, Developed by Trinity Consultants in Collaboration with SCAQMD and other California Air Districts. Sacramento, CA: CAPCOA.

California Air Resources Board (CARB). 2020 (June 4, last accessed). Top 4 Summary: Anaheim—Pampas Lane Monitoring Station. Sacramento, CA: CARB. https://www.arb.ca.gov/adam/topfour/topfourdisplay.php.

———. 2018 (October, last updated). Maps of State and Federal Area Designations. Sacramento, CA: CARB. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

———. 2014 (February). Proposed First Update to the Climate Change Scoping Plan: Building on the Framework. Sacramento, CA: CARB. http://www.arb.ca.gov/cc/scopingplan/2013_update/draft_proposed_first_update.pdf.

———. 2017. OffRoad 2017 Orion Database. Sacramento, CA: CARB. https://www.arb.ca.gov/msei/ordiesel.htm

———. 2017. EMissions FACtor Model (EMFAC 2017). Web database: https://arb.ca.gov/emfac/2017/.

———. 2008 (December). Climate Change Scoping Plan—Pursuant to AB 32. Sacramento, CA: CARB. https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

California Department of Conservation (DOC). 2020 (July 8, last accessed). Landslide Inventory (Beta). Sacramento, CA: DOC. https://maps.conservation.ca.gov/cgs/lsi/app/.

———. 2010. Update of Mineral Land Classification for Portland Cement Concrete Aggregate in the San Gabriel Valley P-C Region, Los Angeles County—Special Report 209—Plate 1—San Gabriel Valley P-C Region showing MRZ-2 Areas and Active Mine Operations. Sacramento, CA: CDMG. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_209/.

California Department of Conservation, Division of Oil, Gas & Geothermal Resources (DOGGR). 2020 (June 30, last accessed). Division of Oil, Gas, and Geothermal Resources Well Finder. Sacramento, CA: DOGGR. https://maps.conservation.ca.gov/doggr/wellfinder/#close.

California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2020 (June 26, last accessed). Los Angeles County Important Farmland 2016. Sacramento, CA: FMMP. https://www.conservation.ca.gov/dlrp/fmmp/Pages/LosAngeles.aspx.

California Department of Finance (DOF). 2020 (May) E-5 Population Estimates for Cities, Counties, and the State, January 2011-2020, with 2010 Benchmark. Sacramento, CA: DOF. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/

California Department of Resources Recycling and Recovery (CalRecycle). 2020 (July 28, access date). SWIS Facility Detail Victorville Sanitary Landfill (36-AA-0045) Sacramento, CA: CalRecycle. https://www2.calrecycle.ca.gov/swfacilities/Directory/36-AA-0045.

California Department of Toxic Substances Control (DTSC). 2020 (July 14, access date). Envirostor - Hazardous Waste and Substances Site List (Cortese). Sacramento, CA: DTSC. https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM,COLUR&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+(CORTESE).

California Department of Transportation (Caltrans). 2018a (December 10, access date). 2017 Traffic Volumes. Sacramento, CA: Caltrans. http://www.dot.ca.gov/trafficops/census/volumes2017/Route51-59.html

———. 2013 (September) Transportation and Construction Vibration Guidance Manual. Sacramento, CA: Caltrans. http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.

———. 2011 (September 7). California Scenic Highway Mapping System. Sacramento, CA: Caltrans. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm

California Energy Commission (CEC). 2020a (June 1, last accessed). Clean Energy and Pollution Reduction Act—SB 350. Sacramento, CA: CEC. https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350.

———. 2020b (June 1, last accessed). SB 100 Joint Agency Report. Sacramento, CA: CEC. https://www.energy.ca.gov/sb100.

———. 2018 (March). 2019 Energy Efficiency Building Standards. Sacramento, CA: CEC. https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf.

California Office of Legislative Counsel. 2020 (June 26, access date). Public Resources Code. Sacramento, CA: OLC. https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=13.&title=&part=&chapter=1.&article=

DJP Engineering, Inc. (DJP Engineering). 2020 (May). Preliminary Hydrology Study—1651 East Rowland Avenue, Assessor's Parcel 8442-018-900, West Covina California. Covina, CA: DJP Engineering.

Federal Emergency Management Agency (FEMA). 2020 (July 29, last accessed). FEMA Flood Map Service Center: Search By Address. Washington, D.C.: FEMA.

https://msc.fema.gov/portal/search?AddressQuery=1651%20East%20Rowland%20Avenue%2C%20WEst%20Covina#searchresultsanchor

Leighton and Associates, Inc. (Leighton and Associates). 2020a (April 17). Report of Geotechnical Investigation, Proposed Residential Development, Former Pioneer Elementary School, 1651 East Rowland Avenue, City of West Covina, California. Rancho Cucamonga, CA: Leighton and Associates.

———. 2020b (July 13). Phase I and Limited Phase II Environmental Site Assessment Former Pioneer Elementary School, 1651 East Rowland Avenue, West Covina, California. Rancho Cucamonga, CA: Leighton and Associates.

Los Angeles County Airport Land Use Commission (Los Angeles County ALUC). 2015. Brackett Field Airport Land Use Compatibility Plan. Los Angeles, CA: Los Angeles County ALUC. http://planning.lacounty.gov/assets/upl/project/brackett_alucp_final.pdf.

———. 1991. Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan. Los Angeles: CA: Los Angeles County ALUC. Available at: http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf.

Los Angeles County Library (LA County Library). West Covina Library. Los Angeles, CA: LA County Library. https://lacountylibrary.org/west-covina-library/.

Los Angeles County Public Works (Public Works). 2008. City of West Covina Disaster Map Route. Alhambra, CA: Public Works.

Los Angeles County Sanitation District (LACSD). 2020a. San Jose Creek Water Reclamation Plant. Whittier, CA: LACSD. https://www.lacsd.org/services/wastewater/wwfacilities/wwtreatmentplant/san_jose_cree.asp.

———. 2020b. Whittier Narrows Water Reclamation Plant. Whittier, CA: LACSD. https://www.lacsd.org/services/wastewatersewage/facilities_information/wwtreatmentplant/whittiernarrowswrp.asp.

Governor's Office of Planning and Research. 2018 (December). Technical Advisory on Evaluation Transportation Impacts in CEQA. Sacramento, CA: OPR. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

Psomas. 2020 (October). Final Focused Traffic Study for Walnut Grove. Tucson, AZ: Psomas.

South Coast Air Quality Management District (SCAQMD). (2020, July last accessed). Historical Data by Year—2016-2018. Diamond Bar, CA: SCAQMD. https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year.

———. 2019 (April, Revision). SCAQMD Air Quality Significance Thresholds. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

———. 2017 (June 4, 2018, last accessed). Air Quality Management Plan (AQMP). Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan

———. 2016 (February). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2.

———. 2010 (September 28). Minutes for the GHG Significance Threshold Stakeholder Working Group #15. Diamond Bar, CA: SCAQMD.

———. 2009. Localized Significance Thresholds. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

———. 2008 (December 5). PROPOSAL: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2.

———. 2003a (August 1). 2003 Air Quality Management Plan. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf.

———. 2003b (August). White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. Diamond Bar, CA: SCAQMD. https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp.

———. 1993. CEQA Air Quality Handbook. Diamond Bar, CA: SCAQMD.

Southern California Association of Governments (SCAG). 2016 (April). The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life. Los Angeles, CA: SCAG. http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.

———. 2016b. Final 2016-2040 RTP/SCS Appendix, Demographics and Growth Forecast. Los Angeles, CA: SCAG. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf.

———. 2012 (August 29). 5th Cycle Regional Housing Needs Assessment Final Allocation Plan, 1/1/2014 – 10/1/2021. Los Angeles, CA: SCAG. http://scag.ca.gov/Documents/5thCyclePFinalRHNAplan.pdf.

Southern California Edison (SCE). 2020 (July 28, last accessed). Incorporated Cities and Counties Served by SCE. Rosemead, CA: Southern California Edison. https://www.sce.com/sites/default/files/inline-files/Incorporated_Cities_and_Counties_and_Unicorporated_Areas_Served_by_SCE.pdf.

Southern California Gas Company (SCGC). 2020 (July 28, last accessed). List of Cities and Communities Served. Los Angeles, CA: SCGC. https://www2.socalgas.com/regulatory/tariffs/tm2/pdf/CITIES.pdf.

Suburban Water Systems (Suburban). 2015. Draft 2015 Urban Water Management Plan, Covina, California. Covina, CA: Suburban.

U.S. Environmental Protection Agency (USEPA). 2020 (July 28, last accessed). National Overview: Facts and Figures on Materials, Wastes, and Recycling. Washing, DC.: USEPA. https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#Generation.

———. 2014 (December 9). Clean Data Determination for 1997 PM2.5 Standards; California—South Coast; Applicability of Clean Air Act Requirements. Federal Register 79(236): 72999–73007. Washington, D.C.: USEPA. http://www.gpo.gov/fdsys/pkg/FR-2014-12-09/pdf/2014-28709.pdf#page=1.

———. 1971. Noise from *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.* https://nepis.epa.gov/Exe/ZyNET.exe/9101NN3I.TXT?ZyActionD=ZyDocument&Client=EPA&Index=Prior+to+1976&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIn.dex%20Data%5C70thru75%5CTxt%5C00000024%5C9101NN3I.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL.

U.S. Fish and Wildlife Service (USFWS). 2020 (July 9, access date). Critical Habitat for Threatened and Endangered Species. Washington, D.C.: USFWS. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77

West Covina, City of. 2020a (July 29, last accessed). City of West Covina Water District Map. West Covina, CA: City of West Covina. https://www.westcovina.org/departments/city-manager-s-office/gis-maps.

———. 2020b (July 23, accessed date). Fire Department. West Covina, CA: City of West Covina. https://www.westcovina.org/departments/fire.

———. 2020c (August 4, accessed date). City of West Covina Projects and Developments. West Covina, CA: City of West Covina. https://www.westcovina.org/departments/community-development/community-and-economic-development/economic-development/projects.

———. 2016a. (December). West Covina General Plan (PlanWC). West Covina, CA: City of West Covina. https://www.westcovina.org/home/showdocument?id=18138.

———. 2016b (December). Final Environmental Impact Report for the 2016 General Plan Update and Downtown Plan and Code. West Covina, CA: City of West Covina. https://www.westcovina.org/home/showdocument?id=18142.

———. 2016c (December 20, amended). City of West Covina 2014-2021 Housing Element. West Covina, CA: City of West Covina. https://www.westcovina.org/home/showdocument?id=18140.

———. 2011 (September, adopted). City of West Covina Energy Action Plan. West Covina, CA: City of. https://www.ca-ilg.org/sites/main/files/file-attachments/west_covina_energy_ action_plan.pdf.

Appendix A

Air Quality and Greenhouse Gas Emissions Modeling Data

Walnut Grove 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
Parking Lot	99.00	Space	0.89	39,600.00	0
City Park	0.27	Acre	0.27	11,761.20	0
Condo/Townhouse	92.00	Dwelling Unit	3.60	181,823.00	263
Single Family Housing	66.00	Dwelling Unit	4.38	139,832.00	189

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
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 - Per Site Plan and Specific Plan

Construction Phase - Per Data Needs

Off-road Equipment - default

Off-road Equipment - 2 excavators, 3 tractor/loader/backhoe

Off-road Equipment - 2 excavators, 2 loader/backhoes, 1 sweeper

Off-road Equipment - 4 scrapers, 1 dozer, 1 sweeper

Off-road Equipment - .

Off-road Equipment - 1 dozer

Trips and VMT - .

Demolition -

Grading - Per Submittal #2 Preliminary Grading Plan

Vehicle Trips - Per Traffic Engineer

Woodstoves - No wood burning fireplaces, per SCAQMD Rule 445.

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	230.00	173.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	4.60	0.00
tblFireplaces	NumberWood	3.30	0.00
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02

tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MHD	0.02	0.03
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblGrading	MaterialImported	0.00	9,750.00
tblLandUse	LandUseSquareFeet	92,000.00	181,823.00
tblLandUse	LandUseSquareFeet	118,800.00	139,832.00
tblLandUse	LotAcreage	5.75	3.60
tblLandUse	LotAcreage	21.43	4.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	5.30
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.53
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	5.43
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	4.60	0.00
tblWoodstoves	NumberCatalytic	3.30	0.00
tblWoodstoves	NumberNoncatalytic	4.60	0.00
tblWoodstoves	NumberNoncatalytic	3.30	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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					
2021	15.0819	66.5657	37.1825	0.1035	11.1549	2.3835	13.5384	4.0066	2.1940	6.2006	0.0000	10,376.7981	10,376.7981	2.4848	0.0000	10,438.9178
Maximum	**15.0819**	**66.5657**	**37.1825**	**0.1035**	**11.1549**	**2.3835**	**13.5384**	**4.0066**	**2.1940**	**6.2006**	**0.0000**	**10,376.7981**	**10,376.7981**	**2.4848**	**0.0000**	**10,438.9178**

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					
2021	15.0819	66.5657	37.1825	0.1035	4.8721	2.3835	7.2556	1.7047	2.1940	3.8987	0.0000	10,376.7981	10,376.7981	2.4848	0.0000	10,438.9178
Maximum	**15.0819**	**66.5657**	**37.1825**	**0.1035**	**4.8721**	**2.3835**	**7.2556**	**1.7047**	**2.1940**	**3.8987**	**0.0000**	**10,376.7981**	**10,376.7981**	**2.4848**	**0.0000**	**10,438.9178**

	ROG	NOx	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**	**56.32**	**0.00**	**46.41**	**57.45**	**0.00**	**37.12**	**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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Energy	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
Mobile	1.9829	8.2091	26.1059	0.0916	8.3484	0.0794	8.4277	2.2361	0.0740	2.3101		9,293.2158	9,293.2158	0.4545		9,304.5792
Total	**9.6768**	**11.4443**	**40.4779**	**0.1120**	**8.3484**	**0.4009**	**8.7493**	**2.2361**	**0.3955**	**2.6316**	**0.0000**	**13,254.5255**	**13,254.5255**	**0.5527**	**0.0722**	**13,289.8570**

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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Energy	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
Mobile	1.9829	8.2091	26.1059	0.0916	8.3484	0.0794	8.4277	2.2361	0.0740	2.3101		9,293.2158	9,293.2158	0.4545		9,304.5792
Total	**9.6768**	**11.4443**	**40.4779**	**0.1120**	**8.3484**	**0.4009**	**8.7493**	**2.2361**	**0.3955**	**2.6316**	**0.0000**	**13,254.5255**	**13,254.5255**	**0.5527**	**0.0722**	**13,289.8570**

	ROG	NOx	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	3/1/2021	4/30/2021	6	53	
2	Site Preparation	Site Preparation	5/1/2021	5/7/2021	6	6	
3	Grading	Grading	5/8/2021	6/13/2021	6	31	
4	Building Construction	Building Construction	6/14/2021	12/31/2021	6	173	
5	Architectural Coating	Architectural Coating	6/14/2021	12/31/2021	6	173	
6	Paving	Paving	11/1/2021	11/13/2021	6	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 124

Acres of Paving: 0.89

Residential Indoor: 651,351; Residential Outdoor: 217,117; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	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	5	13.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,219.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	112.00	25.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					
Fugitive Dust					0.8075	0.0000	0.8075	0.1223	0.0000	0.1223			0.0000			0.0000
Off-Road	1.0615	10.1556	13.0151	0.0191		0.5837	0.5837		0.5370	0.5370		1,848.3605	1,848.3605	0.5978		1,863.3054
Total	**1.0615**	**10.1556**	**13.0151**	**0.0191**	**0.8075**	**0.5837**	**1.3912**	**0.1223**	**0.5370**	**0.6593**		**1,848.3605**	**1,848.3605**	**0.5978**		**1,863.3054**

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	0.0319	1.0144	0.2492	2.8600e-003	0.0653	3.1200e-003	0.0685	0.0179	2.9900e-003	0.0209		310.7416	310.7416	0.0222		311.2970
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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
Total	**0.0939**	**1.0568**	**0.7279**	**4.2600e-003**	**0.2106**	**4.2900e-003**	**0.2149**	**0.0565**	**4.0700e-003**	**0.0605**		**450.1343**	**450.1343**	**0.0263**		**450.7922**

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					
Fugitive Dust					0.3149	0.0000	0.3149	0.0477	0.0000	0.0477			0.0000			0.0000
Off-Road	1.0615	10.1556	13.0151	0.0191		0.5837	0.5837		0.5370	0.5370	0.0000	1,848.3605	1,848.3605	0.5978		1,863.3054
Total	**1.0615**	**10.1556**	**13.0151**	**0.0191**	**0.3149**	**0.5837**	**0.8987**	**0.0477**	**0.5370**	**0.5847**	**0.0000**	**1,848.3605**	**1,848.3605**	**0.5978**		**1,863.3054**

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	0.0319	1.0144	0.2492	2.8600e-003	0.0653	3.1200e-003	0.0685	0.0179	2.9900e-003	0.0209		310.7416	310.7416	0.0222		311.2970
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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
Total	**0.0939**	**1.0568**	**0.7279**	**4.2600e-003**	**0.2106**	**4.2900e-003**	**0.2149**	**0.0565**	**4.0700e-003**	**0.0605**		**450.1343**	**450.1343**	**0.0263**		**450.7922**

3.3 Site Preparation - 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					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000

Off-Road	1.0464	10.9713	4.0378	8.5300e-003		0.5325	0.5325		0.4899	0.4899		827.3522	827.3522	0.2676		834.0418
Total	**1.0464**	**10.9713**	**4.0378**	**8.5300e-003**	**6.0221**	**0.5325**	**6.5545**	**3.3102**	**0.4899**	**3.8001**		**827.3522**	**827.3522**	**0.2676**		**834.0418**

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	0.0143	9.7800e-003	0.1105	3.2000e-004	0.0335	2.7000e-004	0.0338	8.8900e-003	2.5000e-004	9.1400e-003		32.1675	32.1675	9.5000e-004		32.1912
Total	**0.0143**	**9.7800e-003**	**0.1105**	**3.2000e-004**	**0.0335**	**2.7000e-004**	**0.0338**	**8.8900e-003**	**2.5000e-004**	**9.1400e-003**		**32.1675**	**32.1675**	**9.5000e-004**		**32.1912**

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					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000			0.0000
Off-Road	1.0464	10.9713	4.0378	8.5300e-003		0.5325	0.5325		0.4899	0.4899	0.0000	827.3522	827.3522	0.2676		834.0418
Total	**1.0464**	**10.9713**	**4.0378**	**8.5300e-003**	**2.3486**	**0.5325**	**2.8811**	**1.2910**	**0.4899**	**1.7809**	**0.0000**	**827.3522**	**827.3522**	**0.2676**		**834.0418**

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	0.0143	9.7800e-003	0.1105	3.2000e-004	0.0335	2.7000e-004	0.0338	8.8900e-003	2.5000e-004	9.1400e-003		32.1675	32.1675	9.5000e-004		32.1912
Total	**0.0143**	**9.7800e-003**	**0.1105**	**3.2000e-004**	**0.0335**	**2.7000e-004**	**0.0338**	**8.8900e-003**	**2.5000e-004**	**9.1400e-003**		**32.1675**	**32.1675**	**9.5000e-004**		**32.1912**

3.4 Grading - 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					
Fugitive Dust					10.2997	0.0000	10.2997	3.7737	0.0000	3.7737			0.0000			0.0000
Off-Road	4.9928	55.8396	34.0076	0.0717		2.3493	2.3493		2.1613	2.1613		6,945.1747	6,945.1747	2.2462		7,001.3299
Total	**4.9928**	**55.8396**	**34.0076**	**0.0717**	**10.2997**	**2.3493**	**12.6489**	**3.7737**	**2.1613**	**5.9350**		**6,945.1747**	**6,945.1747**	**2.2462**		**7,001.3299**

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	0.3358	10.6772	2.6226	0.0302	0.6876	0.0329	0.7204	0.1885	0.0314	0.2199		3,270.7858	3,270.7858	0.2338		3,276.6319
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	**0.4073**	**10.7262**	**3.1749**	**0.0318**	**0.8552**	**0.0342**	**0.8895**	**0.2330**	**0.0327**	**0.2656**		**3,431.6235**	**3,431.6235**	**0.2386**		**3,437.5879**

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					4.0169	0.0000	4.0169	1.4717	0.0000	1.4717			0.0000			0.0000
Off-Road	4.9928	55.8396	34.0076	0.0717		2.3493	2.3493		2.1613	2.1613	0.0000	6,945.1747	6,945.1747	2.2462		7,001.3299
Total	**4.9928**	**55.8396**	**34.0076**	**0.0717**	**4.0169**	**2.3493**	**6.3661**	**1.4717**	**2.1613**	**3.6331**	**0.0000**	**6,945.1747**	**6,945.1747**	**2.2462**		**7,001.3299**

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	0.3358	10.6772	2.6226	0.0302	0.6876	0.0329	0.7204	0.1885	0.0314	0.2199		3,270.7858	3,270.7858	0.2338		3,276.6319
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	**0.4073**	**10.7262**	**3.1749**	**0.0318**	**0.8552**	**0.0342**	**0.8895**	**0.2330**	**0.0327**	**0.2656**		**3,431.6235**	**3,431.6235**	**0.2386**		**3,437.5879**

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	0.9500	9.2833	12.4767	0.0185		0.5023	0.5023		0.4621	0.4621		1,790.2466	1,790.2466	0.5790		1,804.7217
Total	**0.9500**	**9.2833**	**12.4767**	**0.0185**		**0.5023**	**0.5023**		**0.4621**	**0.4621**		**1,790.2466**	**1,790.2466**	**0.5790**		**1,804.7217**

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	0.0798	2.4222	0.7019	6.2600e-003	0.1601	5.1200e-003	0.1652	0.0461	4.9000e-003	0.0510		668.3638	668.3638	0.0432		669.4425
Worker	0.5340	0.3653	4.1245	0.0121	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,200.9212	1,200.9212	0.0353		1,201.8047
Total	**0.6138**	**2.7875**	**4.8264**	**0.0183**	**1.4120**	**0.0152**	**1.4272**	**0.3781**	**0.0142**	**0.3923**		**1,869.2850**	**1,869.2850**	**0.0785**		**1,871.2472**

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	0.9500	9.2833	12.4767	0.0185		0.5023	0.5023		0.4621	0.4621	0.0000	1,790.2466	1,790.2466	0.5790		1,804.7217
Total	**0.9500**	**9.2833**	**12.4767**	**0.0185**		**0.5023**	**0.5023**		**0.4621**	**0.4621**	**0.0000**	**1,790.2466**	**1,790.2466**	**0.5790**		**1,804.7217**

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	0.0798	2.4222	0.7019	6.2600e-003	0.1601	5.1200e-003	0.1652	0.0461	4.9000e-003	0.0510		668.3638	668.3638	0.0432		669.4425
Worker	0.5340	0.3653	4.1245	0.0121	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,200.9212	1,200.9212	0.0353		1,201.8047
Total	**0.6138**	**2.7875**	**4.8264**	**0.0183**	**1.4120**	**0.0152**	**1.4272**	**0.3781**	**0.0142**	**0.3923**		**1,869.2850**	**1,869.2850**	**0.0785**		**1,871.2472**

3.6 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	11.6976					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	**11.9165**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.1049	0.0718	0.8102	2.3700e-003	0.2459	1.9900e-003	0.2479	0.0652	1.8300e-003	0.0671		235.8952	235.8952	6.9400e-003		236.0688
Total	**0.1049**	**0.0718**	**0.8102**	**2.3700e-003**	**0.2459**	**1.9900e-003**	**0.2479**	**0.0652**	**1.8300e-003**	**0.0671**		**235.8952**	**235.8952**	**6.9400e-003**		**236.0688**

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	11.6976					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	**11.9165**	**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**

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	0.1049	0.0718	0.8102	2.3700e-003	0.2459	1.9900e-003	0.2479	0.0652	1.8300e-003	0.0671		235.8952	235.8952	6.9400e-003		236.0688
Total	**0.1049**	**0.0718**	**0.8102**	**2.3700e-003**	**0.2459**	**1.9900e-003**	**0.2479**	**0.0652**	**1.8300e-003**	**0.0671**		**235.8952**	**235.8952**	**6.9400e-003**		**236.0688**

3.7 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	1.2309	12.3083	13.7981	0.0202		0.7137	0.7137		0.6566	0.6566		1,951.5820	1,951.5820	0.6312		1,967.3615
Paving	0.1943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4252**	**12.3083**	**13.7981**	**0.0202**		**0.7137**	**0.7137**		**0.6566**	**0.6566**		**1,951.5820**	**1,951.5820**	**0.6312**		**1,967.3615**

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	1.2309	12.3083	13.7981	0.0202		0.7137	0.7137		0.6566	0.6566	0.0000	1,951.5820	1,951.5820	0.6312		1,967.3615
Paving	0.1943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4252**	**12.3083**	**13.7981**	**0.0202**		**0.7137**	**0.7137**		**0.6566**	**0.6566**	**0.0000**	**1,951.5820**	**1,951.5820**	**0.6312**		**1,967.3615**

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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9829	8.2091	26.1059	0.0916	8.3484	0.0794	8.4277	2.2361	0.0740	2.3101		9,293.2158	9,293.2158	0.4545		9,304.5792
Unmitigated	1.9829	8.2091	26.1059	0.0916	8.3484	0.0794	8.4277	2.2361	0.0740	2.3101		9,293.2158	9,293.2158	0.4545		9,304.5792

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	499.56	487.60	416.76	1,660,814	1,660,814
Parking Lot	0.00	0.00	0.00		
Single Family Housing	623.04	648.78	564.30	2,112,913	2,112,913
Total	1,122.60	1,136.38	981.06	3,773,727	3,773,727

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
City Park	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211

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	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
NaturalGas Unmitigated	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4329.43	0.0467	0.3990	0.1698	2.5500e-003		0.0323	0.0323		0.0323	0.0323		509.3452	509.3452	9.7600e-003	9.3400e-003	512.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4968.01	0.0536	0.4578	0.1948	2.9200e-003		0.0370	0.0370		0.0370	0.0370		584.4715	584.4715	0.0112	0.0107	587.9448
Total		**0.1003**	**0.8568**	**0.3646**	**5.4700e-003**		**0.0693**	**0.0693**		**0.0693**	**0.0693**		**1,093.8168**	**1,093.8168**	**0.0210**	**0.0201**	**1,100.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.32943	0.0467	0.3990	0.1698	2.5500e-003		0.0323	0.0323		0.0323	0.0323		509.3452	509.3452	9.7600e-003	9.3400e-003	512.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.96801	0.0536	0.4578	0.1948	2.9200e-003		0.0370	0.0370		0.0370	0.0370		584.4715	584.4715	0.0112	0.0107	587.9448
Total		**0.1003**	**0.8568**	**0.3646**	**5.4700e-003**		**0.0693**	**0.0693**		**0.0693**	**0.0693**		**1,093.8168**	**1,093.8168**	**0.0210**	**0.0201**	**1,100.3168**

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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Unmitigated	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610

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	0.5544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2607	2.2278	0.9480	0.0142		0.1801	0.1801		0.1801	0.1801	0.0000	2,844.0000	2,844.0000	0.0545	0.0521	2,860.9005
Landscaping	0.3951	0.1506	13.0594	6.9000e-004		0.0721	0.0721		0.0721	0.0721		23.4930	23.4930	0.0227		24.0605
Total	**7.5936**	**2.3784**	**14.0074**	**0.0149**		**0.2523**	**0.2523**		**0.2523**	**0.2523**	**0.0000**	**2,867.4930**	**2,867.4930**	**0.0772**	**0.0521**	**2,884.9610**

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	0.5544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2607	2.2278	0.9480	0.0142		0.1801	0.1801		0.1801	0.1801	0.0000	2,844.0000	2,844.0000	0.0545	0.0521	2,860.9005
Landscaping	0.3951	0.1506	13.0594	6.9000e-004		0.0721	0.0721		0.0721	0.0721		23.4930	23.4930	0.0227		24.0605
Total	**7.5936**	**2.3784**	**14.0074**	**0.0149**		**0.2523**	**0.2523**		**0.2523**	**0.2523**	**0.0000**	**2,867.4930**	**2,867.4930**	**0.0772**	**0.0521**	**2,884.9610**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Walnut Grove 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
Parking Lot	99.00	Space	0.89	39,600.00	0
City Park	0.27	Acre	0.27	11,761.20	0
Condo/Townhouse	92.00	Dwelling Unit	3.60	181,823.00	263
Single Family Housing	66.00	Dwelling Unit	4.38	139,832.00	189

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
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 - Per Site Plan and Specific Plan

Construction Phase - Per Data Needs

Off-road Equipment - default

Off-road Equipment - 2 excavators, 3 tractor/loader/backhoe

Off-road Equipment - 2 excavators, 2 loader/backhoes, 1 sweeper

Off-road Equipment - 4 scrapers, 1 dozer, 1 sweeper

Off-road Equipment - .

Off-road Equipment - 1 dozer

Trips and VMT - .

Demolition -

Grading - Per Submittal #2 Preliminary Grading Plan

Vehicle Trips - Per Traffic Engineer

Woodstoves - No wood burning fireplaces, per SCAQMD Rule 445.

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	230.00	173.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	4.60	0.00
tblFireplaces	NumberWood	3.30	0.00
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02

tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MHD	0.02	0.03
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblGrading	MaterialImported	0.00	9,750.00
tblLandUse	LandUseSquareFeet	92,000.00	181,823.00
tblLandUse	LandUseSquareFeet	118,800.00	139,832.00
tblLandUse	LotAcreage	5.75	3.60
tblLandUse	LotAcreage	21.43	4.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	5.30
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.53
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	5.43
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	4.60	0.00
tblWoodstoves	NumberCatalytic	3.30	0.00
tblWoodstoves	NumberNoncatalytic	4.60	0.00
tblWoodstoves	NumberNoncatalytic	3.30	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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					
2021	15.0064	66.4318	37.0849	0.1041	11.1549	2.3830	13.5379	4.0066	2.1936	6.2001	0.0000	10,444.4353	10,444.4353	2.4771	0.0000	10,506.3634
Maximum	**15.0064**	**66.4318**	**37.0849**	**0.1041**	**11.1549**	**2.3830**	**13.5379**	**4.0066**	**2.1936**	**6.2001**	**0.0000**	**10,444.4353**	**10,444.4353**	**2.4771**	**0.0000**	**10,506.3634**

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					
2021	15.0064	66.4318	37.0849	0.1041	4.8721	2.3830	7.2551	1.7047	2.1936	3.8982	0.0000	10,444.4353	10,444.4353	2.4771	0.0000	10,506.3634
Maximum	**15.0064**	**66.4318**	**37.0849**	**0.1041**	**4.8721**	**2.3830**	**7.2551**	**1.7047**	**2.1936**	**3.8982**	**0.0000**	**10,444.4353**	**10,444.4353**	**2.4771**	**0.0000**	**10,506.3634**

	ROG	NOx	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**	**56.32**	**0.00**	**46.41**	**57.45**	**0.00**	**37.13**	**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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Energy	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
Mobile	2.0451	7.9543	27.5790	0.0962	8.3484	0.0791	8.4275	2.2361	0.0737	2.3098		9,757.6994	9,757.6994	0.4585		9,769.1626
Total	**9.7390**	**11.1895**	**41.9510**	**0.1166**	**8.3484**	**0.4007**	**8.7490**	**2.2361**	**0.3953**	**2.6314**	**0.0000**	**13,719.0091**	**13,719.0091**	**0.5567**	**0.0722**	**13,754.4404**

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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Energy	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
Mobile	2.0451	7.9543	27.5790	0.0962	8.3484	0.0791	8.4275	2.2361	0.0737	2.3098		9,757.6994	9,757.6994	0.4585		9,769.1626
Total	**9.7390**	**11.1895**	**41.9510**	**0.1166**	**8.3484**	**0.4007**	**8.7490**	**2.2361**	**0.3953**	**2.6314**	**0.0000**	**13,719.0091**	**13,719.0091**	**0.5567**	**0.0722**	**13,754.4404**

	ROG	NOx	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	3/1/2021	4/30/2021	6	53	
2	Site Preparation	Site Preparation	5/1/2021	5/7/2021	6	6	
3	Grading	Grading	5/8/2021	6/13/2021	6	31	
4	Building Construction	Building Construction	6/14/2021	12/31/2021	6	173	
5	Architectural Coating	Architectural Coating	6/14/2021	12/31/2021	6	173	
6	Paving	Paving	11/1/2021	11/13/2021	6	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 124

Acres of Paving: 0.89

Residential Indoor: 651,351; Residential Outdoor: 217,117; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	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	5	13.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,219.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	112.00	25.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					
Fugitive Dust					0.8075	0.0000	0.8075	0.1223	0.0000	0.1223			0.0000			0.0000
Off-Road	1.0615	10.1556	13.0151	0.0191		0.5837	0.5837		0.5370	0.5370		1,848.3605	1,848.3605	0.5978		1,863.3054
Total	**1.0615**	**10.1556**	**13.0151**	**0.0191**	**0.8075**	**0.5837**	**1.3912**	**0.1223**	**0.5370**	**0.6593**		**1,848.3605**	**1,848.3605**	**0.5978**		**1,863.3054**

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	0.0312	1.0021	0.2350	2.9100e-003	0.0653	3.0800e-003	0.0684	0.0179	2.9400e-003	0.0209		316.2196	316.2196	0.0215		316.7560
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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
Total	**0.0869**	**1.0404**	**0.7586**	**4.4000e-003**	**0.2106**	**4.2500e-003**	**0.2149**	**0.0565**	**4.0200e-003**	**0.0605**		**464.2596**	**464.2596**	**0.0258**		**464.9052**

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					0.3149	0.0000	0.3149	0.0477	0.0000	0.0477			0.0000			0.0000
Off-Road	1.0615	10.1556	13.0151	0.0191		0.5837	0.5837		0.5370	0.5370	0.0000	1,848.3605	1,848.3605	0.5978		1,863.3054
Total	**1.0615**	**10.1556**	**13.0151**	**0.0191**	**0.3149**	**0.5837**	**0.8987**	**0.0477**	**0.5370**	**0.5847**	**0.0000**	**1,848.3605**	**1,848.3605**	**0.5978**		**1,863.3054**

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	0.0312	1.0021	0.2350	2.9100e-003	0.0653	3.0800e-003	0.0684	0.0179	2.9400e-003	0.0209		316.2196	316.2196	0.0215		316.7560
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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
Total	**0.0869**	**1.0404**	**0.7586**	**4.4000e-003**	**0.2106**	**4.2500e-003**	**0.2149**	**0.0565**	**4.0200e-003**	**0.0605**		**464.2596**	**464.2596**	**0.0258**		**464.9052**

3.3 Site Preparation - 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					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000

Off-Road	1.0464	10.9713	4.0378	8.5300e-003		0.5325	0.5325		0.4899	0.4899		827.3522	827.3522	0.2676		834.0418
Total	**1.0464**	**10.9713**	**4.0378**	**8.5300e-003**	**6.0221**	**0.5325**	**6.5545**	**3.3102**	**0.4899**	**3.8001**		**827.3522**	**827.3522**	**0.2676**		**834.0418**

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	0.0129	8.8400e-003	0.1208	3.4000e-004	0.0335	2.7000e-004	0.0338	8.8900e-003	2.5000e-004	9.1400e-003		34.1631	34.1631	1.0100e-003		34.1883
Total	**0.0129**	**8.8400e-003**	**0.1208**	**3.4000e-004**	**0.0335**	**2.7000e-004**	**0.0338**	**8.8900e-003**	**2.5000e-004**	**9.1400e-003**		**34.1631**	**34.1631**	**1.0100e-003**		**34.1883**

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					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000			0.0000
Off-Road	1.0464	10.9713	4.0378	8.5300e-003		0.5325	0.5325		0.4899	0.4899	0.0000	827.3522	827.3522	0.2676		834.0418
Total	**1.0464**	**10.9713**	**4.0378**	**8.5300e-003**	**2.3486**	**0.5325**	**2.8811**	**1.2910**	**0.4899**	**1.7809**	**0.0000**	**827.3522**	**827.3522**	**0.2676**		**834.0418**

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	0.0129	8.8400e-003	0.1208	3.4000e-004	0.0335	2.7000e-004	0.0338	8.8900e-003	2.5000e-004	9.1400e-003		34.1631	34.1631	1.0100e-003		34.1883
Total	**0.0129**	**8.8400e-003**	**0.1208**	**3.4000e-004**	**0.0335**	**2.7000e-004**	**0.0338**	**8.8900e-003**	**2.5000e-004**	**9.1400e-003**		**34.1631**	**34.1631**	**1.0100e-003**		**34.1883**

3.4 Grading - 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					
Fugitive Dust					10.2997	0.0000	10.2997	3.7737	0.0000	3.7737			0.0000			0.0000
Off-Road	4.9928	55.8396	34.0076	0.0717		2.3493	2.3493		2.1613	2.1613		6,945.1747	6,945.1747	2.2462		7,001.3299
Total	**4.9928**	**55.8396**	**34.0076**	**0.0717**	**10.2997**	**2.3493**	**12.6489**	**3.7737**	**2.1613**	**5.9350**		**6,945.1747**	**6,945.1747**	**2.2462**		**7,001.3299**

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	0.3279	10.5480	2.4732	0.0307	0.6876	0.0324	0.7200	0.1885	0.0310	0.2195		3,328.4452	3,328.4452	0.2259		3,334.0922
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	**0.3922**	**10.5922**	**3.0774**	**0.0324**	**0.8552**	**0.0337**	**0.8890**	**0.2330**	**0.0322**	**0.2652**		**3,499.2607**	**3,499.2607**	**0.2309**		**3,505.0335**

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					4.0169	0.0000	4.0169	1.4717	0.0000	1.4717			0.0000			0.0000
Off-Road	4.9928	55.8396	34.0076	0.0717		2.3493	2.3493		2.1613	2.1613	0.0000	6,945.1747	6,945.1747	2.2462		7,001.3299
Total	**4.9928**	**55.8396**	**34.0076**	**0.0717**	**4.0169**	**2.3493**	**6.3661**	**1.4717**	**2.1613**	**3.6331**	**0.0000**	**6,945.1747**	**6,945.1747**	**2.2462**		**7,001.3299**

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	0.3279	10.5480	2.4732	0.0307	0.6876	0.0324	0.7200	0.1885	0.0310	0.2195		3,328.4452	3,328.4452	0.2259		3,334.0922
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	**0.3922**	**10.5922**	**3.0774**	**0.0324**	**0.8552**	**0.0337**	**0.8890**	**0.2330**	**0.0322**	**0.2652**		**3,499.2607**	**3,499.2607**	**0.2309**		**3,505.0335**

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	0.9500	9.2833	12.4767	0.0185		0.5023	0.5023		0.4621	0.4621		1,790.2466	1,790.2466	0.5790		1,804.7217
Total	**0.9500**	**9.2833**	**12.4767**	**0.0185**		**0.5023**	**0.5023**		**0.4621**	**0.4621**		**1,790.2466**	**1,790.2466**	**0.5790**		**1,804.7217**

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	0.0760	2.4272	0.6345	6.4300e-003	0.1601	4.9600e-003	0.1650	0.0461	4.7500e-003	0.0508		687.2016	687.2016	0.0405		688.2137
Worker	0.4801	0.3300	4.5111	0.0128	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,275.4222	1,275.4222	0.0376		1,276.3617
Total	**0.5561**	**2.7572**	**5.1456**	**0.0192**	**1.4120**	**0.0151**	**1.4270**	**0.3781**	**0.0141**	**0.3922**		**1,962.6238**	**1,962.6238**	**0.0781**		**1,964.5754**

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	0.9500	9.2833	12.4767	0.0185		0.5023	0.5023		0.4621	0.4621	0.0000	1,790.2466	1,790.2466	0.5790		1,804.7217
Total	**0.9500**	**9.2833**	**12.4767**	**0.0185**		**0.5023**	**0.5023**		**0.4621**	**0.4621**	**0.0000**	**1,790.2466**	**1,790.2466**	**0.5790**		**1,804.7217**

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	0.0760	2.4272	0.6345	6.4300e-003	0.1601	4.9600e-003	0.1650	0.0461	4.7500e-003	0.0508		687.2016	687.2016	0.0405		688.2137
Worker	0.4801	0.3300	4.5111	0.0128	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,275.4222	1,275.4222	0.0376		1,276.3617
Total	**0.5561**	**2.7572**	**5.1456**	**0.0192**	**1.4120**	**0.0151**	**1.4270**	**0.3781**	**0.0141**	**0.3922**		**1,962.6238**	**1,962.6238**	**0.0781**		**1,964.5754**

3.6 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	11.6976					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	**11.9165**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0943	0.0648	0.8861	2.5200e-003	0.2459	1.9900e-003	0.2479	0.0652	1.8300e-003	0.0671		250.5294	250.5294	7.3800e-003		250.7139
Total	**0.0943**	**0.0648**	**0.8861**	**2.5200e-003**	**0.2459**	**1.9900e-003**	**0.2479**	**0.0652**	**1.8300e-003**	**0.0671**		**250.5294**	**250.5294**	**7.3800e-003**		**250.7139**

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	11.6976					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	**11.9165**	**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**

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	0.0943	0.0648	0.8861	2.5200e-003	0.2459	1.9900e-003	0.2479	0.0652	1.8300e-003	0.0671		250.5294	250.5294	7.3800e-003		250.7139
Total	**0.0943**	**0.0648**	**0.8861**	**2.5200e-003**	**0.2459**	**1.9900e-003**	**0.2479**	**0.0652**	**1.8300e-003**	**0.0671**		**250.5294**	**250.5294**	**7.3800e-003**		**250.7139**

3.7 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	1.2309	12.3083	13.7981	0.0202		0.7137	0.7137		0.6566	0.6566		1,951.5820	1,951.5820	0.6312		1,967.3615
Paving	0.1943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4252**	**12.3083**	**13.7981**	**0.0202**		**0.7137**	**0.7137**		**0.6566**	**0.6566**		**1,951.5820**	**1,951.5820**	**0.6312**		**1,967.3615**

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	1.2309	12.3083	13.7981	0.0202		0.7137	0.7137		0.6566	0.6566	0.0000	1,951.5820	1,951.5820	0.6312		1,967.3615
Paving	0.1943					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4252**	**12.3083**	**13.7981**	**0.0202**		**0.7137**	**0.7137**		**0.6566**	**0.6566**	**0.0000**	**1,951.5820**	**1,951.5820**	**0.6312**		**1,967.3615**

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**

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	2.0451	7.9543	27.5790	0.0962	8.3484	0.0791	8.4275	2.2361	0.0737	2.3098		9,757.6994	9,757.6994	0.4585		9,769.1626
Unmitigated	2.0451	7.9543	27.5790	0.0962	8.3484	0.0791	8.4275	2.2361	0.0737	2.3098		9,757.6994	9,757.6994	0.4585		9,769.1626

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	499.56	487.60	416.76	1,660,814	1,660,814
Parking Lot	0.00	0.00	0.00		
Single Family Housing	623.04	648.78	564.30	2,112,913	2,112,913
Total	1,122.60	1,136.38	981.06	3,773,727	3,773,727

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
City Park	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211

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	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168
NaturalGas Unmitigated	0.1003	0.8568	0.3646	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.8168	1,093.8168	0.0210	0.0201	1,100.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4329.43	0.0467	0.3990	0.1698	2.5500e-003		0.0323	0.0323		0.0323	0.0323		509.3452	509.3452	9.7600e-003	9.3400e-003	512.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4968.01	0.0536	0.4578	0.1948	2.9200e-003		0.0370	0.0370		0.0370	0.0370		584.4715	584.4715	0.0112	0.0107	587.9448
Total		**0.1003**	**0.8568**	**0.3646**	**5.4700e-003**		**0.0693**	**0.0693**		**0.0693**	**0.0693**		**1,093.8168**	**1,093.8168**	**0.0210**	**0.0201**	**1,100.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.32943	0.0467	0.3990	0.1698	2.5500e-003		0.0323	0.0323		0.0323	0.0323		509.3452	509.3452	9.7600e-003	9.3400e-003	512.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.96801	0.0536	0.4578	0.1948	2.9200e-003		0.0370	0.0370		0.0370	0.0370		584.4715	584.4715	0.0112	0.0107	587.9448
Total		**0.1003**	**0.8568**	**0.3646**	**5.4700e-003**		**0.0693**	**0.0693**		**0.0693**	**0.0693**		**1,093.8168**	**1,093.8168**	**0.0210**	**0.0201**	**1,100.3168**

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	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610
Unmitigated	7.5936	2.3784	14.0074	0.0149		0.2523	0.2523		0.2523	0.2523	0.0000	2,867.4930	2,867.4930	0.0772	0.0521	2,884.9610

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	0.5544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2607	2.2278	0.9480	0.0142		0.1801	0.1801		0.1801	0.1801	0.0000	2,844.0000	2,844.0000	0.0545	0.0521	2,860.9005
Landscaping	0.3951	0.1506	13.0594	6.9000e-004		0.0721	0.0721		0.0721	0.0721		23.4930	23.4930	0.0227		24.0605
Total	**7.5936**	**2.3784**	**14.0074**	**0.0149**		**0.2523**	**0.2523**		**0.2523**	**0.2523**	**0.0000**	**2,867.4930**	**2,867.4930**	**0.0772**	**0.0521**	**2,884.9610**

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	0.5544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.3834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2607	2.2278	0.9480	0.0142		0.1801	0.1801		0.1801	0.1801	0.0000	2,844.0000	2,844.0000	0.0545	0.0521	2,860.9005
Landscaping	0.3951	0.1506	13.0594	6.9000e-004		0.0721	0.0721		0.0721	0.0721		23.4930	23.4930	0.0227		24.0605
Total	**7.5936**	**2.3784**	**14.0074**	**0.0149**		**0.2523**	**0.2523**		**0.2523**	**0.2523**	**0.0000**	**2,867.4930**	**2,867.4930**	**0.0772**	**0.0521**	**2,884.9610**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Walnut Grove 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
Parking Lot	99.00	Space	0.89	39,600.00	0
City Park	0.27	Acre	0.27	11,761.20	0
Condo/Townhouse	92.00	Dwelling Unit	3.60	181,823.00	263
Single Family Housing	66.00	Dwelling Unit	4.38	139,832.00	189

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
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 - Per Site Plan and Specific Plan

Construction Phase - Per Data Needs

Off-road Equipment - default

Off-road Equipment - 2 excavators, 3 tractor/loader/backhoe

Off-road Equipment - 2 excavators, 2 loader/backhoes, 1 sweeper

Off-road Equipment - 4 scrapers, 1 dozer, 1 sweeper

Off-road Equipment - .

Off-road Equipment - 1 dozer

Trips and VMT - .

Demolition -

Grading - Per Submittal #2 Preliminary Grading Plan

Vehicle Trips - Per Traffic Engineer

Woodstoves - No wood burning fireplaces, per SCAQMD Rule 445.

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	230.00	173.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	4.60	0.00
tblFireplaces	NumberWood	3.30	0.00
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02

tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDA	0.55	0.64
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LDT2	0.20	0.12
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	LHD2	6.1960e-003	6.7430e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MCY	5.1420e-003	5.6180e-003
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MH	8.7600e-004	1.2110e-003
tblFleetMix	MHD	0.02	0.03
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	OBUS	2.5150e-003	1.9040e-003
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	SBUS	6.8700e-004	6.7800e-004
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblFleetMix	UBUS	2.2010e-003	1.8990e-003
tblGrading	MaterialImported	0.00	9,750.00
tblLandUse	LandUseSquareFeet	92,000.00	181,823.00
tblLandUse	LandUseSquareFeet	118,800.00	139,832.00
tblLandUse	LotAcreage	5.75	3.60
tblLandUse	LotAcreage	21.43	4.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	5.30
tblVehicleTrips	ST_TR	9.91	9.83
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.53
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	5.43
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	4.60	0.00
tblWoodstoves	NumberCatalytic	3.30	0.00
tblWoodstoves	NumberNoncatalytic	4.60	0.00
tblWoodstoves	NumberNoncatalytic	3.30	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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					
2021	1.2956	2.6271	2.7709	6.0600e-003	0.3593	0.1115	0.4708	0.1146	0.1033	0.2179	0.0000	546.1613	546.1613	0.1077	0.0000	548.8527
Maximum	**1.2956**	**2.6271**	**2.7709**	**6.0600e-003**	**0.3593**	**0.1115**	**0.4708**	**0.1146**	**0.1033**	**0.2179**	**0.0000**	**546.1613**	**546.1613**	**0.1077**	**0.0000**	**548.8527**

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					
2021	1.2956	2.6271	2.7709	6.0600e-003	0.2379	0.1115	0.3494	0.0709	0.1033	0.1742	0.0000	546.1609	546.1609	0.1077	0.0000	548.8524
Maximum	**1.2956**	**2.6271**	**2.7709**	**6.0600e-003**	**0.2379**	**0.1115**	**0.3494**	**0.0709**	**0.1033**	**0.1742**	**0.0000**	**546.1609**	**546.1609**	**0.1077**	**0.0000**	**548.8524**

	ROG	NOx	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**	**33.80**	**0.00**	**25.80**	**38.13**	**0.00**	**20.06**	**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	**3-1-2021**	**5-31-2021**	1.0978	1.0978
2	**6-1-2021**	**8-31-2021**	1.3193	1.3193
3	**9-1-2021**	**9-30-2021**	0.3491	0.3491
		Highest	1.3193	1.3193

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	1.3188	0.0467	1.6443	2.6000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	34.9145	34.9145	3.1900e-003	5.9000e-004	35.1705
Energy	0.0183	0.1564	0.0665	1.0000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	505.8586	505.8586	0.0169	6.0900e-003	508.0966
Mobile	0.3392	1.4625	4.6405	0.0163	1.4330	0.0139	1.4469	0.3845	0.0129	0.3974	0.0000	1,495.1889	1,495.1889	0.0721	0.0000	1,496.9912
Waste						0.0000	0.0000		0.0000	0.0000	24.3244	0.0000	24.3244	1.4375	0.0000	60.2627
Water						0.0000	0.0000		0.0000	0.0000	3.2659	66.8211	70.0871	0.3382	8.4900e-003	81.0724
Total	**1.6763**	**1.6655**	**6.3513**	**0.0175**	**1.4330**	**0.0378**	**1.4708**	**0.3845**	**0.0368**	**0.4213**	**27.5903**	**2,102.7831**	**2,130.3735**	**1.8679**	**0.0152**	**2,181.5934**

Mitigated Operational

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

Category	tons/yr										MT/yr					
Area	1.3188	0.0467	1.6443	2.6000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	34.9145	34.9145	3.1900e-003	5.9000e-004	35.1705
Energy	0.0183	0.1564	0.0665	1.0000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	505.8586	505.8586	0.0169	6.0900e-003	508.0966
Mobile	0.3392	1.4625	4.6405	0.0163	1.4330	0.0139	1.4469	0.3845	0.0129	0.3974	0.0000	1,495.1889	1,495.1889	0.0721	0.0000	1,496.9912
Waste						0.0000	0.0000		0.0000	0.0000	12.1622	0.0000	12.1622	0.7188	0.0000	30.1313
Water						0.0000	0.0000		0.0000	0.0000	3.2659	66.8211	70.0871	0.3382	8.4900e-003	81.0724
Total	**1.6763**	**1.6655**	**6.3513**	**0.0175**	**1.4330**	**0.0378**	**1.4708**	**0.3845**	**0.0368**	**0.4213**	**15.4281**	**2,102.7831**	**2,118.2113**	**1.1491**	**0.0152**	**2,151.4620**

	ROG	NOx	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**	**44.08**	**0.00**	**0.57**	**38.48**	**0.00**	**1.38**

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	3/1/2021	4/30/2021	6	53	
2	Site Preparation	Site Preparation	5/1/2021	5/7/2021	6	6	
3	Grading	Grading	5/8/2021	6/13/2021	6	31	
4	Building Construction	Building Construction	6/14/2021	12/31/2021	6	173	
5	Architectural Coating	Architectural Coating	6/14/2021	12/31/2021	6	173	
6	Paving	Paving	11/1/2021	11/13/2021	6	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 124

Acres of Paving: 0.89

Residential Indoor: 651,351; Residential Outdoor: 217,117; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	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	5	13.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,219.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	112.00	25.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					
Fugitive Dust					0.0214	0.0000	0.0214	3.2400e-003	0.0000	3.2400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0281	0.2691	0.3449	5.1000e-004		0.0155	0.0155		0.0142	0.0142	0.0000	44.4353	44.4353	0.0144	0.0000	44.7946
Total	**0.0281**	**0.2691**	**0.3449**	**5.1000e-004**	**0.0214**	**0.0155**	**0.0369**	**3.2400e-003**	**0.0142**	**0.0175**	**0.0000**	**44.4353**	**44.4353**	**0.0144**	**0.0000**	**44.7946**

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	8.3000e-004	0.0274	6.3900e-003	8.0000e-005	1.7000e-003	8.0000e-005	1.7800e-003	4.7000e-004	8.0000e-005	5.5000e-004	0.0000	7.5467	7.5467	5.2000e-004	0.0000	7.5598
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4800e-003	1.1500e-003	0.0130	4.0000e-005	3.7800e-003	3.0000e-005	3.8100e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.4068	3.4068	1.0000e-004	0.0000	3.4093
Total	**2.3100e-003**	**0.0286**	**0.0194**	**1.2000e-004**	**5.4800e-003**	**1.1000e-004**	**5.5900e-003**	**1.4700e-003**	**1.1000e-004**	**1.5800e-003**	**0.0000**	**10.9536**	**10.9536**	**6.2000e-004**	**0.0000**	**10.9692**

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					8.3500e-003	0.0000	8.3500e-003	1.2600e-003	0.0000	1.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0281	0.2691	0.3449	5.1000e-004		0.0155	0.0155		0.0142	0.0142	0.0000	44.4353	44.4353	0.0144	0.0000	44.7946
Total	**0.0281**	**0.2691**	**0.3449**	**5.1000e-004**	**8.3500e-003**	**0.0155**	**0.0238**	**1.2600e-003**	**0.0142**	**0.0155**	**0.0000**	**44.4353**	**44.4353**	**0.0144**	**0.0000**	**44.7946**

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	8.3000e-004	0.0274	6.3900e-003	8.0000e-005	1.7000e-003	8.0000e-005	1.7800e-003	4.7000e-004	8.0000e-005	5.5000e-004	0.0000	7.5467	7.5467	5.2000e-004	0.0000	7.5598
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	1.4800e-003	1.1500e-003	0.0130	4.0000e-005	3.7800e-003	3.0000e-005	3.8100e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.4068	3.4068	1.0000e-004	0.0000	3.4093
Total	**2.3100e-003**	**0.0286**	**0.0194**	**1.2000e-004**	**5.4800e-003**	**1.1000e-004**	**5.5900e-003**	**1.4700e-003**	**1.1000e-004**	**1.5800e-003**	**0.0000**	**10.9536**	**10.9536**	**6.2000e-004**	**0.0000**	**10.9692**

3.3 Site Preparation - 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					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0329	0.0121	3.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003	0.0000	2.2517	2.2517	7.3000e-004	0.0000	2.2699
Total	**3.1400e-003**	**0.0329**	**0.0121**	**3.0000e-005**	**0.0181**	**1.6000e-003**	**0.0197**	**9.9300e-003**	**1.4700e-003**	**0.0114**	**0.0000**	**2.2517**	**2.2517**	**7.3000e-004**	**0.0000**	**2.2699**

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	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0890	0.0890	0.0000	0.0000	0.0891
Total	**4.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0890**	**0.0890**	**0.0000**	**0.0000**	**0.0891**

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					7.0500e-003	0.0000	7.0500e-003	3.8700e-003	0.0000	3.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0329	0.0121	3.0000e-005		1.6000e-003	1.6000e-003		1.4700e-003	1.4700e-003	0.0000	2.2517	2.2517	7.3000e-004	0.0000	2.2699
Total	**3.1400e-003**	**0.0329**	**0.0121**	**3.0000e-005**	**7.0500e-003**	**1.6000e-003**	**8.6500e-003**	**3.8700e-003**	**1.4700e-003**	**5.3400e-003**	**0.0000**	**2.2517**	**2.2517**	**7.3000e-004**	**0.0000**	**2.2699**

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	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0890	0.0890	0.0000	0.0000	0.0891
Total	**4.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0890**	**0.0890**	**0.0000**	**0.0000**	**0.0891**

3.4 Grading - 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					
Fugitive Dust					0.1596	0.0000	0.1596	0.0585	0.0000	0.0585	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0774	0.8655	0.5271	1.1100e-003		0.0364	0.0364		0.0335	0.0335	0.0000	97.6586	97.6586	0.0316	0.0000	98.4482
Total	**0.0774**	**0.8655**	**0.5271**	**1.1100e-003**	**0.1596**	**0.0364**	**0.1961**	**0.0585**	**0.0335**	**0.0920**	**0.0000**	**97.6586**	**97.6586**	**0.0316**	**0.0000**	**98.4482**

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	5.1300e-003	0.1687	0.0393	4.7000e-004	0.0105	5.1000e-004	0.0110	2.8800e-003	4.8000e-004	3.3600e-003	0.0000	46.4620	46.4620	3.2200e-003	0.0000	46.5426
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	7.8000e-004	8.7900e-003	3.0000e-005	2.5500e-003	2.0000e-005	2.5700e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.2992	2.2992	7.0000e-005	0.0000	2.3009
Total	**6.1300e-003**	**0.1695**	**0.0481**	**5.0000e-004**	**0.0130**	**5.3000e-004**	**0.0136**	**3.5600e-003**	**5.0000e-004**	**4.0600e-003**	**0.0000**	**48.7612**	**48.7612**	**3.2900e-003**	**0.0000**	**48.8435**

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					0.0623	0.0000	0.0623	0.0228	0.0000	0.0228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0774	0.8655	0.5271	1.1100e-003		0.0364	0.0364		0.0335	0.0335	0.0000	97.6585	97.6585	0.0316	0.0000	98.4481

Total	**0.0774**	**0.8655**	**0.5271**	**1.1100e-003**	**0.0623**	**0.0364**	**0.0987**	**0.0228**	**0.0335**	**0.0563**	**0.0000**	**97.6585**	**97.6585**	**0.0316**	**0.0000**	**98.4481**

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	5.1300e-003	0.1687	0.0393	4.7000e-004	0.0105	5.1000e-004	0.0110	2.8800e-003	4.8000e-004	3.3600e-003	0.0000	46.4620	46.4620	3.2200e-003	0.0000	46.5426
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	7.8000e-004	8.7900e-003	3.0000e-005	2.5500e-003	2.0000e-005	2.5700e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.2992	2.2992	7.0000e-005	0.0000	2.3009
Total	**6.1300e-003**	**0.1695**	**0.0481**	**5.0000e-004**	**0.0130**	**5.3000e-004**	**0.0136**	**3.5600e-003**	**5.0000e-004**	**4.0600e-003**	**0.0000**	**48.7612**	**48.7612**	**3.2900e-003**	**0.0000**	**48.8435**

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	0.0822	0.8030	1.0792	1.6000e-003		0.0435	0.0435		0.0400	0.0400	0.0000	140.4833	140.4833	0.0454	0.0000	141.6192
Total	**0.0822**	**0.8030**	**1.0792**	**1.6000e-003**		**0.0435**	**0.0435**		**0.0400**	**0.0400**	**0.0000**	**140.4833**	**140.4833**	**0.0454**	**0.0000**	**141.6192**

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	6.7200e-003	0.2134	0.0579	5.5000e-004	0.0136	4.4000e-004	0.0141	3.9300e-003	4.2000e-004	4.3500e-003	0.0000	53.3049	53.3049	3.2700e-003	0.0000	53.3866
Worker	0.0417	0.0325	0.3664	1.0600e-003	0.1062	8.8000e-004	0.1070	0.0282	8.1000e-004	0.0290	0.0000	95.8063	95.8063	2.8200e-003	0.0000	95.8768
Total	**0.0484**	**0.2459**	**0.4242**	**1.6100e-003**	**0.1198**	**1.3200e-003**	**0.1211**	**0.0321**	**1.2300e-003**	**0.0334**	**0.0000**	**149.1112**	**149.1112**	**6.0900e-003**	**0.0000**	**149.2634**

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	0.0822	0.8030	1.0792	1.6000e-003		0.0435	0.0435		0.0400	0.0400	0.0000	140.4831	140.4831	0.0454	0.0000	141.6190
Total	**0.0822**	**0.8030**	**1.0792**	**1.6000e-003**		**0.0435**	**0.0435**		**0.0400**	**0.0400**	**0.0000**	**140.4831**	**140.4831**	**0.0454**	**0.0000**	**141.6190**

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	6.7200e-003	0.2134	0.0579	5.5000e-004	0.0136	4.4000e-004	0.0141	3.9300e-003	4.2000e-004	4.3500e-003	0.0000	53.3049	53.3049	3.2700e-003	0.0000	53.3866
Worker	0.0417	0.0325	0.3664	1.0600e-003	0.1062	8.8000e-004	0.1070	0.0282	8.1000e-004	0.0290	0.0000	95.8063	95.8063	2.8200e-003	0.0000	95.8768
Total	**0.0484**	**0.2459**	**0.4242**	**1.6100e-003**	**0.1198**	**1.3200e-003**	**0.1211**	**0.0321**	**1.2300e-003**	**0.0334**	**0.0000**	**149.1112**	**149.1112**	**6.0900e-003**	**0.0000**	**149.2634**

3.6 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	1.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0189	0.1321	0.1572	2.6000e-004		8.1400e-003	8.1400e-003		8.1400e-003	8.1400e-003	0.0000	22.0856	22.0856	1.5200e-003	0.0000	22.1235
Total	**1.0308**	**0.1321**	**0.1572**	**2.6000e-004**		**8.1400e-003**	**8.1400e-003**		**8.1400e-003**	**8.1400e-003**	**0.0000**	**22.0856**	**22.0856**	**1.5200e-003**	**0.0000**	**22.1235**

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	8.1900e-003	6.3700e-003	0.0720	2.1000e-004	0.0209	1.7000e-004	0.0210	5.5400e-003	1.6000e-004	5.7000e-003	0.0000	18.8191	18.8191	5.5000e-004	0.0000	18.8329

Total	**8.1900e-003**	**6.3700e-003**	**0.0720**	**2.1000e-004**	**0.0209**	**1.7000e-004**	**0.0210**	**5.5400e-003**	**1.6000e-004**	**5.7000e-003**	**0.0000**	**18.8191**	**18.8191**	**5.5000e-004**	**0.0000**	**18.8329**

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	1.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0189	0.1321	0.1572	2.6000e-004		8.1400e-003	8.1400e-003		8.1400e-003	8.1400e-003	0.0000	22.0856	22.0856	1.5200e-003	0.0000	22.1235
Total	**1.0308**	**0.1321**	**0.1572**	**2.6000e-004**		**8.1400e-003**	**8.1400e-003**		**8.1400e-003**	**8.1400e-003**	**0.0000**	**22.0856**	**22.0856**	**1.5200e-003**	**0.0000**	**22.1235**

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	8.1900e-003	6.3700e-003	0.0720	2.1000e-004	0.0209	1.7000e-004	0.0210	5.5400e-003	1.6000e-004	5.7000e-003	0.0000	18.8191	18.8191	5.5000e-004	0.0000	18.8329
Total	**8.1900e-003**	**6.3700e-003**	**0.0720**	**2.1000e-004**	**0.0209**	**1.7000e-004**	**0.0210**	**5.5400e-003**	**1.6000e-004**	**5.7000e-003**	**0.0000**	**18.8191**	**18.8191**	**5.5000e-004**	**0.0000**	**18.8329**

3.7 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	7.3900e-003	0.0739	0.0828	1.2000e-004		4.2800e-003	4.2800e-003		3.9400e-003	3.9400e-003	0.0000	10.6227	10.6227	3.4400e-003	0.0000	10.7086
Paving	1.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5600e-003**	**0.0739**	**0.0828**	**1.2000e-004**		**4.2800e-003**	**4.2800e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**10.6227**	**10.6227**	**3.4400e-003**	**0.0000**	**10.7086**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**3.9000e-004**	**3.0000e-004**	**3.4000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8900**	**0.8900**	**3.0000e-005**	**0.0000**	**0.8907**

Mitigated Construction On-Site

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

Off-Road	7.3900e-003	0.0739	0.0828	1.2000e-004		4.2800e-003	4.2800e-003		3.9400e-003	3.9400e-003	0.0000	10.6227	10.6227	3.4400e-003	0.0000	10.7086
Paving	1.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5600e-003**	**0.0739**	**0.0828**	**1.2000e-004**		**4.2800e-003**	**4.2800e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**10.6227**	**10.6227**	**3.4400e-003**	**0.0000**	**10.7086**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**3.9000e-004**	**3.0000e-004**	**3.4000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8900**	**0.8900**	**3.0000e-005**	**0.0000**	**0.8907**

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	0.3392	1.4625	4.6405	0.0163	1.4330	0.0139	1.4469	0.3845	0.0129	0.3974	0.0000	1,495.1889	1,495.1889	0.0721	0.0000	1,496.9912
Unmitigated	0.3392	1.4625	4.6405	0.0163	1.4330	0.0139	1.4469	0.3845	0.0129	0.3974	0.0000	1,495.1889	1,495.1889	0.0721	0.0000	1,496.9912

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	499.56	487.60	416.76	1,660,814	1,660,814
Parking Lot	0.00	0.00	0.00		
Single Family Housing	623.04	648.78	564.30	2,112,913	2,112,913
Total	1,122.60	1,136.38	981.06	3,773,727	3,773,727

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
City Park	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.642469	0.051443	0.116311	0.104680	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211

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	324.7650	324.7650	0.0134	2.7700e-003	325.9268
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	324.7650	324.7650	0.0134	2.7700e-003	325.9268
NaturalGas Mitigated	0.0183	0.1564	0.0665	1.0000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	181.0936	181.0936	3.4700e-003	3.3200e-003	182.1698
NaturalGas Unmitigated	0.0183	0.1564	0.0665	1.0000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	181.0936	181.0936	3.4700e-003	3.3200e-003	182.1698

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.58024e+006	8.5200e-003	0.0728	0.0310	4.6000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	84.3278	84.3278	1.6200e-003	1.5500e-003	84.8289
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.81332e+006	9.7800e-003	0.0836	0.0356	5.3000e-004		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003	0.0000	96.7658	96.7658	1.8500e-003	1.7700e-003	97.3409
Total		**0.0183**	**0.1564**	**0.0666**	**9.9000e-004**		**0.0127**	**0.0127**		**0.0127**	**0.0127**	**0.0000**	**181.0936**	**181.0936**	**3.4700e-003**	**3.3200e-003**	**182.1698**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.58024e+006	8.5200e-003	0.0728	0.0310	4.6000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	84.3278	84.3278	1.6200e-003	1.5500e-003	84.8289
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.81332e+006	9.7800e-003	0.0836	0.0356	5.3000e-004		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003	0.0000	96.7658	96.7658	1.8500e-003	1.7700e-003	97.3409
Total		**0.0183**	**0.1564**	**0.0666**	**9.9000e-004**		**0.0127**	**0.0127**		**0.0127**	**0.0127**	**0.0000**	**181.0936**	**181.0936**	**3.4700e-003**	**3.3200e-003**	**182.1698**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	463674	147.7366	6.1000e-003	1.2600e-003	148.2652
Parking Lot	13860	4.4161	1.8000e-004	4.0000e-005	4.4319
Single Family Housing	541747	172.6123	7.1300e-003	1.4700e-003	173.2298
Total		**324.7650**	**0.0134**	**2.7700e-003**	**325.9268**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	463674	147.7366	6.1000e-003	1.2600e-003	148.2652
Parking Lot	13860	4.4161	1.8000e-004	4.0000e-005	4.4319
Single Family Housing	541747	172.6123	7.1300e-003	1.4700e-003	173.2298
Total		**324.7650**	**0.0134**	**2.7700e-003**	**325.9268**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3188	0.0467	1.6443	2.6000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	34.9145	34.9145	3.1900e-003	5.9000e-004	35.1705
Unmitigated	1.3188	0.0467	1.6443	2.6000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	34.9145	34.9145	3.1900e-003	5.9000e-004	35.1705

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	0.1012					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2600e-003	0.0279	0.0119	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.2504	32.2504	6.2000e-004	5.9000e-004	32.4421
Landscaping	0.0494	0.0188	1.6324	9.0000e-005		9.0200e-003	9.0200e-003		9.0200e-003	9.0200e-003	0.0000	2.6641	2.6641	2.5700e-003	0.0000	2.7284
Total	**1.3188**	**0.0467**	**1.6443**	**2.7000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**34.9145**	**34.9145**	**3.1900e-003**	**5.9000e-004**	**35.1705**

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	0.1012					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2600e-003	0.0279	0.0119	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.2504	32.2504	6.2000e-004	5.9000e-004	32.4421
Landscaping	0.0494	0.0188	1.6324	9.0000e-005		9.0200e-003	9.0200e-003		9.0200e-003	9.0200e-003	0.0000	2.6641	2.6641	2.5700e-003	0.0000	2.7284
Total	**1.3188**	**0.0467**	**1.6443**	**2.7000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**34.9145**	**34.9145**	**3.1900e-003**	**5.9000e-004**	**35.1705**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	70.0871	0.3382	8.4900e-003	81.0724
Unmitigated	70.0871	0.3382	8.4900e-003	81.0724

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.3217	1.1388	5.0000e-005	1.0000e-005	1.1429
Condo/Townhouse	5.99417 / 3.77893	40.1471	0.1969	4.9400e-003	46.5413
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.30017 / 2.71097	28.8012	0.1413	3.5400e-003	33.3883
Total		**70.0870**	**0.3382**	**8.4900e-003**	**81.0724**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.3217	1.1388	5.0000e-005	1.0000e-005	1.1429
Condo/Townhouse	5.99417 / 3.77893	40.1471	0.1969	4.9400e-003	46.5413
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.30017 / 2.71097	28.8012	0.1413	3.5400e-003	33.3883
Total		**70.0870**	**0.3382**	**8.4900e-003**	**81.0724**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.1622	0.7188	0.0000	30.1313
Unmitigated	24.3244	1.4375	0.0000	60.2627

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.02	4.0600e-003	2.4000e-004	0.0000	0.0101
Condo/Townhouse	42.32	8.5906	0.5077	0.0000	21.2828
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	77.49	15.7298	0.9296	0.0000	38.9698
Total		**24.3244**	**1.4375**	**0.0000**	**60.2627**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Condo/Townhouse	21.16	4.2953	0.2538	0.0000	10.6414
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	38.745	7.8649	0.4648	0.0000	19.4849
Total		**12.1622**	**0.7188**	**0.0000**	**30.1314**

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

Appendix B

Habitat Assessment

November 7, 2018

LEWIS MANAGEMENT CORP.
Contact: Stacey Sassaman
1156 N. Mountain Avenue
Upland, California 91786

SUBJECT: Habitat Assessment for the Pioneer School Site Located in the City of West Covina, Los Angeles County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat assessment for the approximately 8.77-acre Pioneer School Site (project site or site) located in the City of West Covina, Los Angeles County, California. The habitat assessment was conducted by biologist Thomas J. McGill, Ph.D. on June 29, 2018 to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project site to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project site.

Project Location

The project site is generally located north of Interstate 10, west of State Route 39, south of Interstate 201, and east of Interstate 605 in the City of West Covina, Los Angeles County, California. The project site is depicted on the Baldwin Park quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Section 22 of Township 1 South, Range 10 West. Specifically, the project site is located at 1751 E. Rowland Avenue, West Covina, California. Refer to Exhibits 1 and 2 in Attachment A.

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project site.

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

Literature Review

Prior to conducting the habitat assessment, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

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

- Google Earth Pro historic aerial imagery (1995-2017);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

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

Habitat Assessment/Field Investigation

Following the literature review, biologist Thomas J. McGill, Ph.D. inventoried and evaluated the condition of the habitat within the project site on June 29, 2018. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project site. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field investigation were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were

photographed during the field investigation and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities and land cover types, and presence of potential jurisdictional drainage and/or wetland features were noted.

Vegetation

The proposed project site consists of existing buildings, parking lots, playgrounds, and landscaped grass fields. As a result of urbanization, the entire project site and immediately surrounding areas have been developed and no longer support undeveloped land. Native plant communities were removed from the project site and surrounding area several decades ago from development. The project site contains a land cover type that would be classified as developed. Developed areas generally encompass all building/structures, parks, and paved, impervious surfaces. The only vegetation occurring on the project site consists of ornamental/landscaped plant species that have been planted in association with existing developments. However, it should be noted that several native oak trees (*Querus* sp.) are part of the onsite landscaping. No plant communities will be affected from implementation of the project. Refer to Attachment B, *Site Photographs*, for representative site photographs.

Wildlife

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

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the project site. Therefore, no fish are expected to occur and are presumed absent from the project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. Therefore, no amphibians are expected to occur on the project site and are presumed absent.

Reptiles

During the field investigation Great Basin fence lizard (*Sceloporus occidentalis longipes*) was the only reptilian species observed on-site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on-site include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status reptilian species are expected to occur within project site.

Birds

The project site provides minimal foraging habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field investigation included American kestrel (*Falco sparverius*), lesser goldfinch (*Spinus psaltria*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), and Anna's hummingbird (*Calypte anna*).

Mammals

The project site and surrounding areas have the potential to support mammalian species adapted to human presence and disturbance. No mammals were observed during the habitat assessment. Common mammalian species expected to occur include Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., suitable trees, crevices) on and surrounding the project site.

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field surveys. Although developed, the landscaped/ornamental trees associated with the surrounding developments have the potential to provide suitable foraging and nesting opportunities for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments.

Migratory Corridors and Linkages

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

both human disturbance and natural fluctuations in resources.

The proposed project will be confined to existing developed, which has removed natural plant communities from the project site and surrounding area. The project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

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

No jurisdictional drainage and/or wetland features were observed on the project site during the habitat assessment that would be considered jurisdictional by the Corps, Regional Board, or CDFW. However, it should be noted that a concrete-lined storm drain was observed along the western boundary of the project site. This concrete-lined storm drain was constructed in the uplands and does not have a surface hydrologic connection to downstream "waters of the United States." Therefore, regulatory approvals from the Corps, Regional Board, and/or CDFW will not be required for implementation of the project.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Baldwin Park USGS 7.5-minute quadrangle. Only one quadrangle was quired since the project site is already developed, completely surrounded by existing development, and does not connect with any natural areas or native plant communities in the region. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified Nine (9) special-status plant species, thirty-one (31) special-status wildlife species, and three (3) special-status plant communities as having potential to occur within the Baldwin Park USGS 7.5-minute quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements,

availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment C.

Special-Status Plants

According to the CNDDB and CNPS, nine (9) special-status plant species have been recorded in the Guasti quadrangle (refer to Attachment C). No special-status plant species were observed on-site during the habitat assessment. The proposed project site consist of existing developed areas that have been subject to a high level of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred in the area resulting in a majority of the project site consisting of ornamental landscaped plant species associated with existing developments. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that no special-status plant species are expected to occur within the proposed pipeline alignment since it will be installed within the existing paved road.

Special-Status Wildlife

According to the CNDDB, thirty-two (32) special-status wildlife species have been reported in the Guasti quadrangle (refer to Attachment C). No special-status wildlife species were observed on-site during the habitat assessment. The proposed project site consists of existing developed areas that have been subject to a high level of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on-site resulting in a majority of the project site consisting of ornamental landscaped plant species associated with existing developments. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that no special-status wildlife species are expected to occur within the proposed pipeline alignment since it will be installed within the existing paved road.

Special-Status Wildlife

The CNDDB lists three (3) special-status plant communities as being identified within the Baldwin Park quadrangle: California Walnut Woodland, Riversidean Alluvial Fan Sage Scrub, and Walnut Forest. No special-status plant communities occur on the project site.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they

authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat. The nearest designated Critical Habitat is located approximately 3 miles northwest of the project site for southwestern willow flycatcher (*Empidonax traillii extimus*). Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey shall be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction

activities within the buffer area can occur.

Heritage Tree Ordinance

The removal of the mature native oak trees (*Quercus* spp.) from a project site is will likely require a permit from the City of West Covina's Planning Department. According to Article VI, Division 9 of the West Covina Zoning Municipal Code, the preservation, protection and removal of trees on public and private property are regulated by the City. A heritage tree is any tree defined by the Planning Commission resolution as having historic or cultural value. Included in the list of heritage trees are oak tree native to California. Acquisition of a tree removal permit will require an inspection and inventory of the oak trees by a certified arborist.

Conclusion

The project site has been developed and used continuously for several decades as a school facility. Based on the proposed project footprint and existing site conditions discussed in this report, none of the special-status plant or wildlife species known to occur in the general vicinity of the project site are expected to be directly or indirectly impacted from implementation of the project. With completion of the recommendations provided above, no impacts to year-round and seasonal avian residents will occur from implementation of the project. Therefore, it was determined that implementation of the project will have "no effect" on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the project will not impact designated Critical Habitats or regional wildlife movement corridors/linkages.

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

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

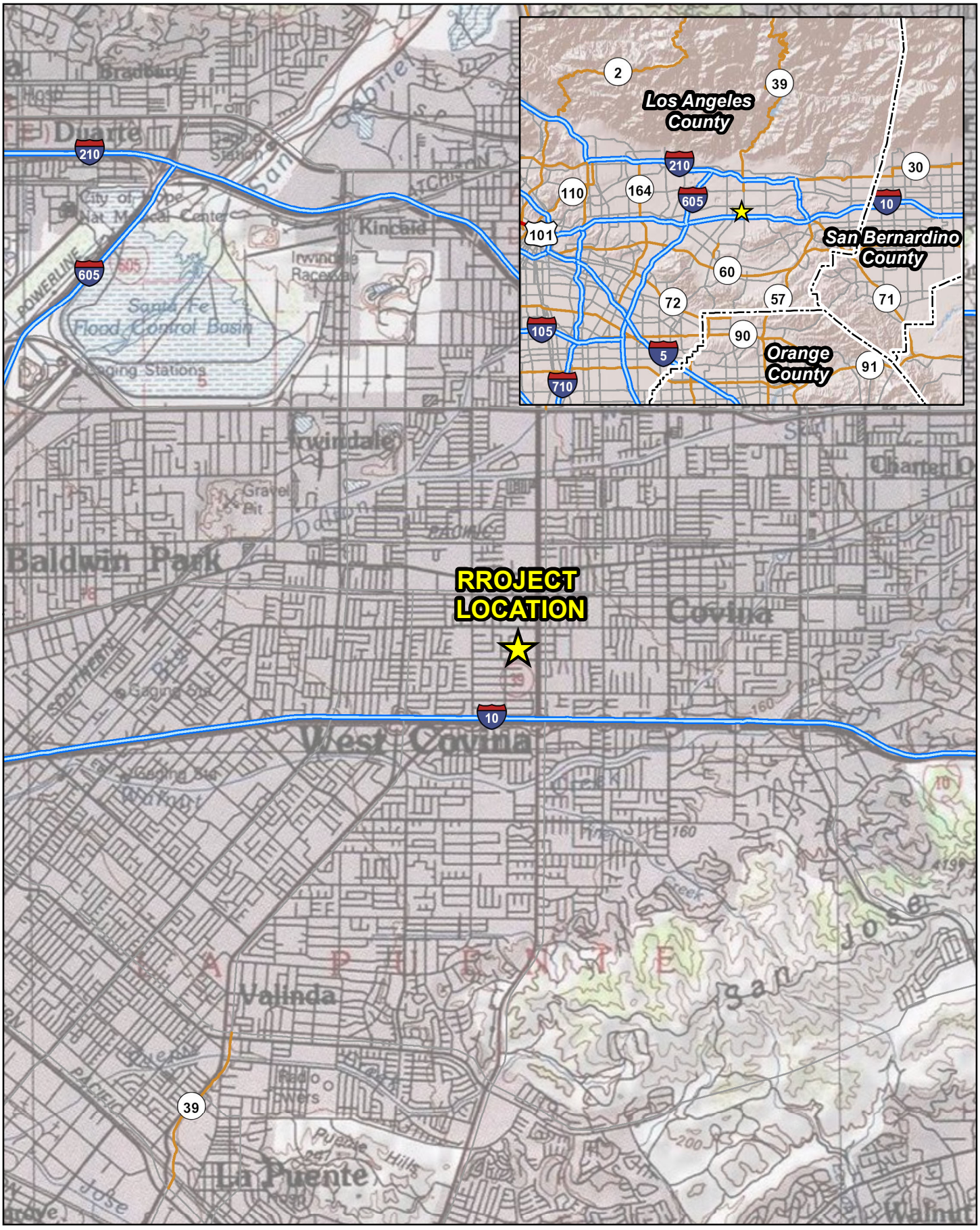
Travis J. McGill
Director

Attachments:

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

Attachment A

Project Exhibits



Source: Federal Highway Administration, US Department of Transportation, USA Topographic Map

ELMT CONSULTING

PIONEER SCHOOL SITE
HABITAT ASSESSMENTT

Regional Vicinity

Exhibit 1

ELMT CONSULTING

0 62.5 125 250 Feet

Source: ESRI Aerial Imagery, Los Angeles County

PIONEER SCHOOL SITE
HABITAT ASSESSMENT

Proejct Site

Exhibit 2

Attachment B

Site Photographs

Photograph 1: Landscaped grass field and school buildings in the background.

Photograph 2: Landscaped grass field on the project site.

Photograph 3: Landscaped grass field and school buildings in the background.

Photograph 4: View of the existing buildings and landscaped vegetation.

Photograph 5: Picture of one of the planted oak trees onsite.

Photograph 6: Another oak tree on the project site.

Photograph 7: View of the concrete-lined storm drain on the project site.

Attachment C

Potentially Occurring Special-Status Biological Resources

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

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Common yearlong resident of California. Typically forages in broken woodland and habitat edges with dense stands of coast live oak (*Quercus agrifolia*), riparian deciduous, or other forest habitat near water. Usually nests in dense riparian areas, usually near streams.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Accipiter striatus sharp-shinned hawk	Fed: None CA: WL	Found in pine, fir and aspen forests. They can be found hunting in forest interior and edges from sea level to near alpine areas. Can also be found in rural, suburban and agricultural areas, where they often hunt at bird feeders. Typically found in southern California in the winter months.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Antrozous pallidus pallid bat	Fed: None CA: SSC	Forest, rocky areas (i.e., inland cliffs, mountain peaks), caves, and subterranean habitats (non-aquatic).		**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Aquila chrysaetos golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Ardea herodias great blue heron	Fed: None CA: None	Fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains about foothills.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Bombus crotchii Crotch bumble bee	Fed: None CA: None	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Calypte costae Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Catostomus santaanae Santa Ana sucker	Fed: **THR** CA: CSC	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Steams that Santa Ana Sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	Yes	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Coccyzus americanus occidentalis western yellow-billed cuckoo	Fed: **THR** CA: **END**	Obligate riparian species with a primary habitat association of willow-cottonwood riparian forest. Nests are typically placed (72% of the time) in willows (*Salix* spp.), particularly in black willow (*S. gooddingii*), red willow (*S. laevigata*), and sandbar willow (*S. exigua*). This species typically requires large blocks of intact riparian habitat, with anything less than 37 acres in size and 328 feet wide generally considered unsuitable. Breeding season home ranges can be as much as 100 acres per individual bird. Yellow-billed cuckoos are considered rare anywhere in southern California outside of the Colorado River.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Empidonax traillii willow flycatcher	Fed: None CA: **END**	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Eumops perotis californicus western mastiff bat	Fed: None CA: SSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Gila orcuttii arroyo chub	Fed: None CA: SSC	Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 40 cm.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Icteria virens yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Common yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover. Requires suitable perches including trees, posts, fences, utility lines, or other perches.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Larus californicus California gull	Fed: None CA: WL	Require isolated islands in rivers, reservoirs and natural lakes for nesting, where predations pressures from terrestrial mammals are diminished. Uses both fresh and saline aquatic habitats at variable elevations and degrees of aridity for nesting and for opportunistic foraging.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Lasiurus cinereus hoary bat	Fed: None CA: None	Artificial/terrestrial, forest, caves, and subterranean habitats (non-aquatic).		**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Lasiurus xanthinus western yellow bat	Fed: None CA: SSC	Occurs in valley/foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts under palm trees and feeds in, and near, palm oases and riparian habitats.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: SSC	Occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats, agricultural fields, or sparse coastal scrub.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Nycticorax nycticorax black-crowned night heron	Fed: None CA: None	Common in wetlands across North America, including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, and wet agricultural fields. They require aquatic habitat for foraging and terrestrial vegetation for cover.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: SSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Nyctinomops macrotis big free-tailed bat	Fed: None CA: SSC	Found in rugged and rocky terrain.		**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Phalacrocorax auritus double-crested cormorant	Fed: None CA: WL	Common yearlong resident in southern California. Occurs widely in freshwater and marine habitats along coastlines. Require open water where they can forage for schooling fish.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: SSC	Found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Common yearlong resident of southern California in sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). Prefers scrub habitat with more low-growing vegetation. Species generally occurs below 750 feet above mean sea level (msl) along the coast and below 1,500 feet above msl within inland regions.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Rhinichthys osculus* ssp. *3 Santa Ana speckled dace	Fed: None CA: SSC	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers, usually in areas with shallow cobble and gravel riffles. Requires permanent water flow with summer water temperatures between 17 and 20° Celsius.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Riparia riparia bank swallow	Fed: None CA: **THR**	Live in low areas along rivers, streams, ocean coasts and reservoirs. Needs vertical banks and cliffs to form their colonies of nests.		**Presumed Absent** There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Setophaga petechia yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Taxidea taxus American badger	Fed: None CA: SSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
SPECIAL-STATUS PLANT SPECIES				
Calochortus plummerae Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Prefers openings in chaparral, foothill woodland, coastal sage scrub, valley and foothill grasslands, cismontane woodland, lower montane coniferous forest and yellow pine forest. Often found on dry, rocky slopes and soils and brushy areas. Can be very common after a fire. From 328 to 5,577 feet in elevation. Blooming period is from May to July.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Calochortus weedii var. intermedius Intermediate mariposa-lily	Fed: None CA: None CNPS: 1B.2	Prefers rocky, calcareous soils in chaparral, valley and foothill grassland, and coastal sage scrub habitats. From 360 to 2,265 feet in elevation. Blooming period is from May to July.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Centromadia parryi ssp. australis southern tarplant	Fed: None CA: None CNPS: 1B.1	Prefers marshes and swamps (margins), valley and foothill grasslands (vernally mesic), and vernal pools. From 0 to 1,410 feet in elevation. Blooming period is from May to November.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Dudleya multicaulis many-stemmed dudleya	Fed: None CA: None CNPS: 1B.2	Often occurs on clay soils and around granitic outcrops in chaparral, coastal sage scrub, and grasslands. From 0 to 2,592 feet in elevation. Blooming period is from April to July.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Horkelia cuneata* var. *puberula mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Found at elevations ranging from 230 to 2,657 feet. Blooming period is from February to September.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Juglas californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet. Blooming period is from March to August.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Phacelia stellaris Brand's star phacelia	Fed: None CA: None CNPS: 1B.1	Occurs in coastal dunes and coastal sage scrub habitats. Grows in elevations ranging from 3 to 1,312 feet. Blooming period is from March to June.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: None CA: None CNPS: 2B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodlands in sandy gravelly soils. Grows in elevation from 3 to 6,890 feet in elevation. Blooming period ranges from July to December.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
Symphyotrichum defoliatum San Bernardino aster	Fed: None CA: None CNPS: 1B.2	Grows in cismontane woodland, coastal scrub, montane/coniferous forest, meadows, seeps, marshes, swamps, and valley/foothill grassland (vernally mesic). Can be found growing near ditches, streams, and springs within these habitats. Found at elevations ranging from 7 to 6,693 feet. Blooming period is from July to November.	No	**Presumed Absent** There is no suitable habitat within or adjacent to the project site.
SPECIAL-STATUS PLANT COMMUNITIES				
California Walnut Woodland	CDFW Sensitive Habitat	Occurs on valley slopes and in valley bottoms, as well as around rocky outcrops. This habitat usually occurs in areas with relatively moist, fine soils. It can intergrade with coast live oak woodland and coast live oak forest in more mesic areas. The canopy is relatively open and is dominated by California walnut with a grassy understory.	No	**Absent**
Riversidean Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring, but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	No	**Absent**
Walnut Forest	CDFW Sensitive Habitat	Southern California walnut woodland may be monospecific or mixed. Coast live oak (*Quercus agrifolia*) frequently codominants in the walnut woodland. Between Santa Barbara and Orange counties, southern California walnut is locally dominant or codominant in the coast live oak phase of oak woodland. Narrow, isolated stands of southern California walnut sometimes occur in chaparral. Occasionally, southern California walnut is found in coastal sage scrub.	No	**Absent**

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

California Department of Fish and Wildlife (CDFW) - California
END - State Endangered
CEND - State Candidate Endangered
SSC - Species of Special Concern
WL - Watch List
FP - Fully Protected

California Native Plant Society (CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

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

Attachment D

Regulations

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

Federal Regulations

Endangered Species Act of 1973

As defined within the Federal Endangered Species Act (FESA) of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." The presence of any federally threatened or endangered species within a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

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

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

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

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

> *Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…*

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

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

State Regulations

California Environmental Quality Act (CEQA)

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

California Endangered Species Act (CESA)

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

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

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

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

Fish and Game Code

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

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at

least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

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

California Rare Plant Rank

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

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

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

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

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

4- Plants of Limited Distribution - A Watch List

Threat Ranks

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

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

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

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

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

---

[1] The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

[2] The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

[3] The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

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

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
- (C) Artificial reflecting pools or swimming pools created in dry land;
- (D) Small ornamental waters created in dry land;
- (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
- (G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

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

State Regulations

Fish and Game Code

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

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

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

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

Porter Cologne Act

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

Appendix C

Energy Data

Energy Use Summary

Construction Phase (gallons/construction perioc	Gasoline	Diesel
Construction Vehicles	0	11,344
Worker Trips	15,054	60
Vendor Trips	1,511	21
Haul Trucks	5	4,314
Total	**16,570**	**15,739**

Operations Phase (gallons/year)	Gasoline	Diesel	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
City Park	0	0	0	0
Condo/Townhouse	59,372	9,809	1,580,240	463,674
Parking Lot	0	0	0	13,860
Single Family Housing	75,535	12,479	1,813,320	541,747
All Land Uses	**134,907**	**22,288**	**3,393,560**	**1,019,281**

Energy Use Summary

Year 2022

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	30.8	48.7		6,542,832	58,938	127,533	6,601,770
LDT1	26.5	22.6		736,906	387	5,339	737,293
LDT2	24.7	35.7		2,246,303	14,235	22,590	2,260,537
LHDT1	10.5	21.6		175,903	119,381		295,284
LHDT2	9.2	19.5		30,010	47,336		77,346
MCY	36.4			295,960			295,960
MDV	20.0	27.4		1,579,640	33,349	11,658	1,612,989
MH	5.2	10.6		35,098	12,759		47,857
MHDT	5.1	10.7		25,445	123,310		148,755
HHDT	4.2	6.7		78	108,362		108,440
OBUS	5.0	8.5		5,959	4,274		10,234
SBUS	9.1	7.6		2,631	6,631		9,262
UBUS	4.9	6.0		952	14	17	966

Trips/Day Land Use	Trips/day Weekday	Trips/day Saturday	Trips/day Sunday	Weekly Total
City Park	0.00	0.00	0.00	0
Condo/Townhouse	500	488	417	3,405
Parking Lot	0	0	0	0
Single Family Housing	623	649	564	4,328
Total	**1,123**	**1,137**	**981**	**7,733**

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
City Park	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Condo/Townhouse	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Parking Lot	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
Single Family Housing	0.642469	0.051443	0.116311	0.10468	0.020358	0.006743	0.028444	0.018243	0.001904	0.001899	0.005618	0.000678	0.001211	100.0%
														0.0%

Vehicle Trips

Weekday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	321	26	58	52	10	3	14	9	1	1	3	0	1	500	4,562.68
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	400	32	72	65	13	4	18	11	1	1	4	0	1	623	5,804.71
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	**721**	**58**	**131**	**118**	**23**	**8**	**32**	**20**	**2**	**2**	**6**	**1**	**1**	**1,123**	

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	314	25	57	51	10	3	14	9	1	1	3	0	1	488	4,563
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	417	33	75	68	13	4	18	12	1	1	4	0	1	649	5,805
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	**730**	**58**	**132**	**119**	**23**	**8**	**32**	**21**	**2**	**2**	**6**	**1**	**1**	**1,137**	

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Condo/Townhouse	268	21	49	44	8	3	12	8	1	1	2	0	1	417	4,563
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Single Family Housing	362	29	66	59	11	4	16	10	1	1	3	0	1	564	5,805
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	**630**	**50**	**114**	**103**	**20**	**7**	**28**	**18**	**2**	**2**	**6**	**1**	**1**	**981**	

Gallons of Fuel

Gasoline	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total	
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Condo/Townhouse	34,286	3,226	7,784	8,511	1,913	474	1,591	5	365	641	256	35	286	59,372	
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Single Family Housing	43,619	4,104	9,902	10,828	2,433	603	2,024	7	464	815	326	45	364	75,535	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	77,904	**7,331**	**17,686**	**19,339**	**4,346**	**1,077**	**3,615**	**12**	**829**	**1,456**	**582**	**80**	**651**	**134,907**	**Total Gallons**

Diesel	LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total	
City Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Condo/Townhouse	196	2	34	131	634	352	3,651	4,488	156	8	0	106	51	9,809	
Parking Lot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Single Family Housing	249	3	43	167	807	448	4,645	5,710	198	10	0	135	64	12,479	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	444	**5**	**78**	**298**	**1,441**	**799**	**8,297**	**10,199**	**354**	**18**	**0**	**241**	**115**	**22,288**	**Total Gallons**
														157,195	**Total Gallons**
														24	**Average MPG**

Energy Use Summary

	NaturalGas Use	**Electricity Use**
Land Use	kBTU/yr	kWh/yr
City Park	0	
Condo/Townhouse	1.58E+06	463,674
Parking Lot	0	13,860
Single Family Housing	1.81E+06	541,747
Total	**3,393,560**	**1,019,281**

Energy Use Summary

2021

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate (gal/hour)	Fuel Type	Total Fuel Consumption (gal/construction period)
Demolition	Concrete/Industrial Saws	0	8	81	0.73	100	53	2024	4.7	Gasoline	0
Demolition	Excavators	2	8	158	0.38	175	53	2024	2.9	Diesel	930
Demolition	Rubber Tired Dozers	0	8	247	0.4	300	53	2024	4.6	Diesel	0
Demolition	Sweepers/Scrubbers	1	8	64	0.46	75	53	2024	1.7	Diesel	328
Demolition	Tractors/Loaders/Backhoes	2	8	97	0.37	100	53	2024	1.6	Diesel	500
Site Preparation	Rubber Tired Dozers	1	8	247	0.4	300	6	2024	4.6	Diesel	89
Site Preparation	Tractors/Loaders/Backhoes	0	8	97	0.37	100	6	2024	1.6	Diesel	0
Grading	Excavators	0	8	158	0.38	175	31	2024	2.9	Diesel	0
Grading	Graders	0	8	187	0.41	175	31	2024	3.2	Diesel	0
Grading	Rubber Tired Dozers	1	8	247	0.4	300	31	2024	4.6	Diesel	459
Grading	Scrapers	4	8	367	0.48	300	31	2024	5.5	Diesel	2,632
Grading	Sweepers/Scrubbers	1	8	64	0.46	75	31	2024	1.7	Diesel	192
Grading	Tractors/Loaders/Backhoes	0	8	97	0.37	100	31	2024	1.6	Diesel	0
Building Construction	Cranes	0	7	231	0.29	300	173	2024	3.3	Diesel	0
Building Construction	Excavators	2	8	158	0.38	175	173	2024	2.9	Diesel	3,036
Building Construction	Forklifts	0	8	89	0.2	100	173	2024	2.0	Diesel	0
Building Construction	Generator Sets	0	8	84	0.74	100	173	2024	5.2	Gasoline	0
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	100	173	2024	1.6	Diesel	2,142
Building Construction	Welders	0	8	46	0.45	50	173	2024	2.4	Gasoline	0
Architectural Coating	Air Compressors	1	6	78	0.48	100	173	2024	1.3	Diesel	660
Paving	Pavers	1	8	130	0.42	100	12	2024	1.7	Diesel	70
Paving	Paving Equipment	1	8	132	0.36	100	12	2024	1.6	Diesel	57
Paving	Rollers	1	8	80	0.38	100	12	2024	1.7	Diesel	62
Paving	Sweepers/Scrubbers	1	8	64	0.46	75	12	2024	1.7	Diesel	74
Paving	Tractors/Loaders/Backhoes	2	8	97	0.37	100	12	2024	1.6	Diesel	113
									Total		**11,344**
										Total Gasoline	**-**
										Total Diesel	**11,344**

Energy Use Summary

Year 2021

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	30.0	47.5		6,444,755	55,086	107,407	6,499,841
LDT1	25.8	22.3		715,053	416	3,766	715,469
LDT2	23.8	34.7		2,207,489	12,809	17,083	2,220,298
LHDT1	10.4	21.2		176,982	113,082		290,064
LHDT2	9.1	19.2		29,883	44,616		74,500
MCY	36.4			286,161			286,161
MDV	19.4	26.6		1,569,538	30,444	7,447	1,599,981
MH	5.1	10.5		35,587	12,386		47,973
MHDT	5.0	10.4		25,313	122,609		147,922
HHDT	4.0	6.6		82	106,417		106,499
OBUS	5.0	8.2		5,971	4,250		10,222
SBUS	9.1	7.5		2,479	6,589		9,067
UBUS	4.8	6.0		944	14	17	958

Input							Gasoline Consumption			Diesel Consumption		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker	Vendor	Haul	Worker	Vendor	Haul
Demolition	13	0	198	14.7	6.9	20						
Site Preparation	3	0	0	14.7	6.9	20						
Grading	15	0	1219	14.7	6.9	20						
Building Construction	112	25	0	14.7	6.9	20						
Architectural Coating	22	0	0	14.7	6.9	20						
Paving	15	0	0	14.7	6.9	20						
Adjusted												
Demolition	689	0	198	14.7	6.9	20	423	0	1	2	0	603
Site Preparation	18	0	0	14.7	6.9	20	11	0	0	0	0	0
Grading	465	0	1219	14.7	6.9	20	285	0	5	1	0	3,711
Building Construction	19376	4325	0	14.7	6.9	20	11,889	1,511	0	47	21	0
Architectural Coating	3806	0	0	14.7	6.9	20	2,335	0	0	9	0	0
Paving	180	0	0	14.7	6.9	20	110	0	0	0	0	0
Total							**15,054**	**1,511**	**5**	**60**	**21**	**4,314**

Appendix D

Geotechnical Report

DRAFT

REPORT OF GEOTECHNICAL INVESTIGATION
FORMER PIONEER ELEMENTARY SCHOOL
1651 EAST ROWLAND AVENUE
CITY OF WEST COVINA, CALIFORNIA

Prepared For:

LEWIS LAND DEVELOPERS, LLC
1156 North Mountain Avenue
P.O. Box 670
Upland, California 91786

Project No. 12064.004

April 17, 2020

DRAFT

April 17, 2020

Project No. 12064.004

To: Lewis Land Developers, LLC
1156 North Mountain Avenue
Upland, California 91786

Attention: Mr. Adam Collier
Project Manager

Subject: Report of Geotechnical Investigation, Proposed Residential Development, Former Pioneer Elementary School, 1651 East Rowland Avenue, City of West Covina, California

In response to your request and authorization, Leighton and Associates, Inc. (Leighton) has conducted a geotechnical investigation for a proposed residential development within the former campus of Pioneer Elementary School located at 1651 East Rowland Avenue in the City of West Covina, California. The purpose of this study has been to evaluate the geotechnical conditions with respect to the proposed development and to provide geotechnical recommendations for design and construction of the improvements.

The most significant geotechnical issues at the site include the presence of compressible soils and the potential for strong seismic shaking. Good planning and design of the project can limit the impacts of these constraints. This report presents our findings, conclusions, and preliminary geotechnical recommendations for the project.

We appreciate the opportunity to work with you on the development of this project. If you have any questions regarding this report, please call us at your convenience.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Jason D. Hertzberg, GE 2711
Principal Engineer

Philip A. Buchiarelli, CEG 1715
Principal Geologist

AIK/SGO/JDH/PB/rsm

Distribution: (1) Addressee

TABLE OF CONTENTS

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Site Location and Description

The approximately 9-acre site formerly used as the campus of Pioneer Elementary School is located at 1641 East Rowland Avenue (north of East Rowland Avenue and west of North Azusa Avenue) in the City of West Covina, California. Existing retail properties are present to the northeast and east, existing residences are located to the northwest and west, and Rowland Avenue bounds the site to the south. In general, vacant school structures occupy the southern portion of the campus with asphalt parking areas adjacent to Rowland Avenue as well as in the northeastern portion of the site. Grass fields are present in the northwest and western portions of the property. The site is relatively flat and drains gently to the south.

Based on our review of historical aerial photographs, it appears that the Pioneer site was used for agricultural purposes from prior to 1948 until approximately 1964 when rough grading for school buildings appeared to begin. Development of the northeastern parking lot began in 1965. The school on the site became defunct in 1989 and appears to have been fully abandoned by 2014. Since then, the site appears to have been left dormant.

1.2 Proposed Development

The 40-scale *Conceptual Site Plan: G-1* dated January 27, 2020 that you provided shows the development of 66 homes, 158 townhomes, and a recreation area as well as parkways, parking areas, hardscape and landscape improvements. Based on the relative flatness of the site, we anticipate shallow cuts and fills less than 5 feet thick will be required to achieve design grades.

1.3 Purpose of Study

The purpose of this study has been to evaluate the geotechnical conditions with respect to the proposed development and to provide preliminary geotechnical recommendations for design and construction.

1.4 Scope of Study

The scope of our geotechnical study included the following tasks:

- Document Review: We reviewed pertinent, readily available geologic and geotechnical literature covering the site. Our review included regional geologic maps and reports and historical aerial photographs available in our library and online as well as the site plan you provided.

- Site Clearance: We coordinated with Underground Service Alert (USA) and private utility service (GPRS) to have existing underground utilities located and marked prior to our subsurface investigation.

  Field Exploration: A total of six (6) exploratory soil borings (LB-1 through LB-6) were excavated, logged, and sampled at selected locations throughout the site to observe and evaluate subsurface conditions. The borings were drilled to a maximum depth of 51.5 feet below the existing ground surface (bgs) by a subcontracted drill rig operator and logged at the surface by our field representative during drilling. Relatively undisturbed soil samples were obtained at selected intervals within the borings using a California Ring Sampler. Standard Penetration Tests were performed at selected intervals, and soil samples were collected. Representative bulk soil samples were also collected from the borings.

  Borings were backfilled with soil cuttings and patched with cold patch asphalt at the surface in parking areas. Logs of the geotechnical borings are presented in Appendix B. Approximate boring locations are shown on the accompanying Boring Location Map, Figure 2.

- Infiltration Testing: Well permeameter tests were conducted within two of our borings (LB-1 and LB-2) onsite to estimate infiltration characteristics of subsurface soils at the depths and locations tested. Well permeameter tests were conducted based on the USBR-7300-89 method and in general accordance with Los Angeles County guidelines. Tests were conducted at depths of approximately 15 feet bgs to estimate the infiltration rate.

- Geotechnical Laboratory Testing: Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field exploration. This laboratory testing program was designed to

evaluate engineering characteristics of site soils. Laboratory tests conducted during this study include:

- In situ moisture content and dry density
- Maximum dry density and optimum moisture content
- Expansion Index
- Sieve analysis
- Collapse / Swell-Settlement
- Water-soluble sulfate concentration in the soil
- Resistivity, chloride content and pH

In situ moisture content and dry density test results are presented on the boring and test pit logs in Appendix B. Results of the remaining laboratory tests are presented in Appendix C.

- Engineering Analysis: Data obtained from our background review, field exploration and geotechnical laboratory testing was evaluated and analyzed to develop geotechnical conclusions and provide preliminary recommendations presented in this report.

- Report Preparation: Results of our geotechnical study have been summarized in this report, presenting our findings, conclusions and preliminary geotechnical recommendations for design and construction of the proposed development.

2.0 FINDINGS

2.1 Regional Geologic Conditions

The site is located in the northeastern portion of the Los Angeles Basin within the Peninsular Ranges geomorphic province of California. The Peninsular Ranges are characterized by elongate structural blocks bounded by northwest to west-northwest trending fault zones. Several of these faults terminate at or merge with the east-west trending thrust faults at the southern edge of the Traverse Ranges geomorphic province to the north of the site. Several faults that have been mapped in the region are active or potentially active and are believed to accommodate stresses associated with the interaction between the two geomorphic provinces. These faults include the Indian Hills fault (approximately 1 mile east of the site), the Walnut Creek fault (approximately 1.6 miles southeast of the site), and the Sierra Madre Fault Zone (approximately 3.4 miles north of the site). The site is underlain by alluvial soil deposits eroded from surrounding mountains and deposited in the site vicinity. Previous grading to accommodate the former school has resulted in the placement of artificial fill in portions of the site.

2.2 Subsurface Soil Conditions

Based on our review of pertinent geologic data, the site is mapped as being underlain by Holocene-age older alluvial soil deposits. The alluvial soil is generally described as alluvial gravel, sand and silt (Dibblee and Ehrenspeck, 1999).

Based upon field exploration, the onsite soil encountered consisted of alluvial deposits consisting of silt with sand, overlain in many areas by artificial fill.

Near surface alluvial soil encountered at the site generally consisted of silty sand and poorly graded sand. Below depths of about 30 feet, sandy silt, sandy clay and clayey sand was also encountered. The soils were medium dense in the upper 15 feet, becoming stiff or very dense with depth.

Artificial fill was observed in each of our borings to depths of approximately 5 feet bgs. The fill is generally composed of silty sand that is loose to medium dense.

2.2.1 Compressible and Collapsible Soil

Soil compressibility refers to a soil's potential for settlement when subjected to increased loads as from a fill surcharge. Based on this and previous studies, undocumented artificial fill and the upper portion of controlled fill are considered slightly to moderately compressible. Complete removal of undocumented fill and partial removal of near surface alluvial soil recommended to reduce the potential for adverse total and differential settlement of the proposed improvements.

Collapse potential refers to the potential settlement of a soil under existing stresses upon being wetted. Based on this study, the onsite soils are anticipated to have a low collapse potential when inundated with water.

2.2.2 Expansive Soils

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations constructed on these soils are subjected to large uplifting forces caused by the swelling. Without proper measures taken, heaving and cracking of both building foundations and slabs-on-grade could result.

A representative soil sample from the site yielded an expansion index of 7 Based on this laboratory result, the onsite near-surface soil is generally expected to exhibit a very low to low expansion potential.

2.2.3 Sulfate Content

Water-soluble sulfates in soil can react adversely with concrete. However, concrete in contact with soil containing sulfate concentrations of less than 0.1 percent by weight is considered to have negligible sulfate exposure based on the American Concrete Institute (ACI) provisions, adopted by the 2019 California Building Code (CBC, 2019 and ACI, 2014).

A near-surface soil sample was tested during this study for soluble sulfate content. The result of this test indicated a sulfate content of less than 0.1 percent by weight, indicating negligible sulfate exposure. Recommendations for concrete in contact with the soil are provided in Section 3.6.

2.2.4 Resistivity, Chloride and pH

Soil corrosivity to ferrous metals can be estimated by the soil's electrical resistivity, chloride content and pH. In general, soil having a minimum resistivity less than 1,000 ohm-cm is considered severely corrosive. Soil with a chloride content of 500 parts-per-million (ppm) or more is considered corrosive to ferrous metals.

As a screening for potentially corrosive soil, representative soil samples were tested during this study to estimate minimum resistivity, chloride content, and pH. The tests indicated a minimum resistivity of 3,050 ohm-cm, chloride content of 70 ppm, and pH of 7.6. Based on these results, the onsite soil is considered moderately corrosive to ferrous metals.

2.3 Groundwater

Groundwater was not encountered in any of the borings drilled to a maximum depth of 51.5 feet below the existing ground surface.

California Geological Survey has reported historically highest groundwater levels beneath the site to be in the range of 100 to 150 feet bgs (CGS, 1998). A well located approximately 2 miles west-southwest of the site maintained by the Main San Gabriel Basin Watermaster a highest historic groundwater level of approximately 144 feet bgs based on measurements taken from July 2011 through July 2019. Groundwater is not expected to be constraint to site development.

2.4 Faulting and Seismicity

In general, the primary seismic hazards for sites in the region could include strong ground shaking and fault rupture. The potentials for fault rupture and seismic shaking are discussed below.

2.4.1 Surface Faulting

The State of California has mapped the site to be outside of an Earthquake Fault Zone. Our review of available other in-house and online literature indicated that no known active faults have been mapped across

the site. Based on our understanding of the current geologic framework, the potential for future surface rupture onsite is low.

2.4.2 Seismic Design Parameters

The site will experience strong ground shaking after the proposed project is developed resulting from an earthquake occurring along one or more of the major active or potentially active faults in southern California. Accordingly, the project should be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a (CGS, 2008). Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following parameters should be considered for design under the 2019 CBC:

2019 CBC Parameters (CBC or ASCE 7-16 reference)	Value 2019 CBC
Site Latitude and Longitude: 34.0802, -117.9101	
Site Class Definition (1613.2.2, ASCE 7-16 Ch 20)	D
Mapped Spectral Response Acceleration at 0.2s Period (1613.2.1), $\boldsymbol{S_s}$	1.658 g
Mapped Spectral Response Acceleration at 1s Period (1613.2.1), $\boldsymbol{S_1}$	0.610 g
Short Period Site Coefficient at 0.2s Period (T1613.2.3(1)), $\boldsymbol{F_a}$	1.000 g
Long Period Site Coefficient at 1s Period (T1613.2.3(2)), $\boldsymbol{F_v}$	1.700* g
Adjusted Spectral Response Acceleration at 0.2s Period (1613.2.3), $\boldsymbol{S_{MS}}$	1.658 g
Adjusted Spectral Response Acceleration at 1s Period (1613.2.3), $\boldsymbol{S_{M1}}$	1.037* g
Design Spectral Response Acceleration at 0.2s Period (1613.2.4), $\boldsymbol{S_{DS}}$	1.105 g
Design Spectral Response Acceleration at 1s Period (1613.2.4), $\boldsymbol{S_{D1}}$	0.691* g
Mapped MCE_G peak ground acceleration (11.8.3.2, Fig 22-9 to 13), ***PGA***	0.702 g
Site Coefficient for Mapped MCE_G *PGA* (11.8.3.2), $\boldsymbol{F_{PGA}}$	1.100
Site-Modified Peak Ground Acceleration (1803.5.12; 11.8.3.2), $\boldsymbol{PGA_M}$	0.772 g

* Per Table 11.4-2 of Supplement 1 of ASCE 7-16, this value of F_v may only be used to calculate T_s [that note is not included in Table 1613A.2.3(2)]; note that S_{D1} and S_{M1} are functions of F_v. In addition, per Exception 2 of 11.4.8 of ASCE 7-16, special equations for C_s are required. This is in lieu of a site-specific ground motion hazard analysis per ASCE 7-16 Chapter 21.2.

Based on the 2019 CBC Table 1613.2.3(2) footnote c., F_v should be determined in accordance with Section 11.4.8 of ASCE 7-16, since the mapped spectral response acceleration at 1 second is greater than 0.2g for Site Class D; in accordance with Section 11.4.8 of ASCE 7-16, a site-specific seismic analysis is required. However, the values provided in the table above may be utilized if design is performed in accordance with Exception (2) in Section 11.4.8 of ASCE 7-16, with special requirements for the seismic response coefficient (C_s), and F_v is only used for calculation of T_s. This exception does not apply (and the values in the table above would not be applicable) for proposed structures with a fundamental period of vibration greater than 0.5 s on sites with potentially liquefiable soils; it also does not apply for structures with seismic isolation or seismic damping systems. The project structural engineer should review the seismic parameters. A site-specific seismic ground motion analysis can be performed upon request.

Hazard deaggregation was estimated using the USGS Interactive Deaggregations utility. The results of this analysis indicate that the predominant modal earthquake has a magnitude of approximately 7.7 (M_W) at a distance on the order of 11.7 kilometers for the Maximum Considered Earthquake (2% probability of exceedance in 50 years).

2.5 Secondary Seismic Hazards

In general, secondary seismic hazards for sites in the region could include soil liquefaction, earthquake-induced settlement, lateral displacement, landsliding, and earthquake-induced flooding. The potential for secondary seismic hazards at the site is discussed below.

2.5.1 Liquefaction Potential

Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine- to medium-grained, cohesionless soils. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

The site has been mapped outside of a Liquefaction Zone by the State of California (CGS, 1998). Additionally, with the absence of shallow groundwater, the potential for liquefaction to occur onsite is low.

2.5.2 Seismically Induced Settlement

Seismically induced settlement consists of dry dynamic settlement (above groundwater) and liquefaction-induced settlement (below groundwater). During a strong seismic event, seismically induced settlement can occur within loose to moderately dense sandy soil due to reduction in volume during, and shortly after, an earthquake event. Settlement caused by ground shaking is often nonuniformly distributed, which can result in differential settlement.

We have performed analyses to estimate the potential for seismically induced settlement using the method of Tokimatsu and Seed, and based on Martin and Lew (1999), considering the maximum considered earthquake (MCE) peak ground acceleration (PGA_M). The results of our analyses indicate that the onsite soils are susceptible to about 2½ to 3½ inches of seismic settlement based on the PGA_M of 0.77g. Differential settlement due to seismic loading considering the PGA_M is estimated to be 1½ inches over a horizontal distance of 40 feet based on the MCE. The resultant seismic settlement is primarily due to loose sands encountered within the upper 10 feet. Seismic settlement potential is anticipated to be reduced to about 1½ inches after preparing building pads in accordance with our over excavation and compaction recommendations in Section 3.1; differential settlement due to seismic loading is estimated to be less than 1 inch over a horizontal distance of 40.

Based on the seismic settlement analyses, the building would not be subject to collapse, nor would it be subject to special design considerations. A summary of seismic settlement analysis is included in Appendix D.

2.6 Infiltration Testing

Two well permeameter tests (LB-1 and LB-2) were conducted onsite and were located based on our previous discussions. LB-1 was located in the north central portion of the site, Boring LB-2 was located in the southwest. Well permeameter tests were performed within granular soils at depths of about 15 feet.

Well permeameter tests are useful for field measurements of soil infiltration rates and are suited for testing when the design depth of the basin or chamber is deeper than current existing grades. It should be noted that this is a clean-water, small-scale test, and that correction factors need to be applied. The test consists of excavating a boring to the depth of the test (or deeper if it is partially backfilled with soil and a bentonite plug with a thin soil covering is placed just below the design test elevation). A layer of clean sand is placed in the boring bottom to support temporary perforated well casing pipe and a float valve. In addition, gravel is poured around the outside of the well casing within the test zone to prevent the boring from caving/collapsing or eroding when water is added. The float valve, lowered into the boring inside the casing, adds water to the boring as water infiltrates into the soil, while maintaining a relatively constant water head in the boring. The incremental infiltration rate as measured during intervals of the test is defined as the incremental flow rate of water infiltrated, divided by the surface area of the infiltration interface. The test was conducted based on the USBR 7300-89 test method.

Well permeameter testing indicated a raw infiltration rate of 1.0 inch per hour at location B-1 and essentially no infiltration at location B-2. See Section 3.7 for infiltration recommendations, including infiltration rates.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this study, the proposed residential development at this site is suitable from a geotechnical standpoint, provided the findings, conclusions and recommendations presented in this report are incorporated into the planning, design and construction of the project. No severe geologic or soils related issues were identified that would preclude the proposed development of the site. One to three-story structures may be founded on conventional spread footings bearing on a zone of compacted fill soils, derived from site soils. The most significant geotechnical issues at the site are those related to the potential for strong seismic shaking and compressible soils.

Although not identified during this study, abandoned utility lines, or other buried structures related to past site uses may be present. If such items were encountered during grading, they would require further evaluation and special consideration.

3.1 General Earthwork and Grading

All grading should be performed in accordance with the *General Earthwork and Grading Specifications* presented in Appendix E, unless specifically revised or amended below or by future recommendations based on final development plans.

3.1.1 Site Preparation

Prior to construction, the site should be cleared of vegetation, trash and debris, which should be disposed of offsite. Any underground obstructions should be removed. Resulting cavities should be properly backfilled and compacted. Efforts should be made to locate existing utility lines. Those lines should be removed or rerouted if they interfere with the proposed construction, and the resulting cavities should be properly backfilled and compacted.

3.1.2 Overexcavation and Recompaction

Based upon this study, one- to three- story structures proposed for the development may be supported on shallow foundation systems. However, in order to reduce the potential for adverse differential settlement, the underlying subgrade soil must be prepared in such a manner that a uniform response to the applied loads is achieved.

All artificial fill should be removed to firm native soil. The onsite alluvial soil should be overexcavated a minimum of 6.5 feet below existing grade or 3 feet below the bottom of footings, whichever is deeper. If compressible, loose, or overly dry soils are found, the removal should be continued until firm native soil is encountered. All such areas should be observed in the field by a Leighton representative prior to fill placement. Where possible, overexcavation and recompaction should extend a minimum horizontal distance of 5 feet from perimeter edges of proposed footings (including footings for exterior columns structurally connected to the building), or a horizontal distance equal to the depth of overexcavation below footings, whichever is farther.

Areas outside the overexcavation limits of structures planned for asphalt or concrete pavement, flatwork, sidewalks, and areas to receive fill should be overexcavated a minimum depth of 12 inches below the existing ground surface or 12 inches below the proposed subgrade, whichever is deeper.

After completion of overexcavation, and prior to fill placement, the exposed surfaces should be scarified to a minimum depth of 6 inches, moisture-conditioned to or slightly above optimum moisture content, and recompacted to a minimum 90 percent relative compaction.

These recommendations should be reviewed once grading plans for the development are available.

3.1.3 Fill Placement and Compaction

Onsite soil to be used for compacted structural fill should be free of debris, organic material and oversized material (greater than 8 inches in largest dimension). Significant oversized material was not observed during our work on the site. Any soil to be placed as fill, whether onsite or imported material, should be reviewed and possibly tested by Leighton.

All fill soil should be placed in thin, loose lifts, moisture conditioned, as necessary, and compacted to a minimum 90 percent relative compaction at or slightly above optimum moisture content. Relative compaction should be determined in accordance with ASTM Test Method D1557. Aggregate base for pavement should be compacted to a minimum of 95 percent relative compaction.

3.1.4 Import Fill Soil

Import soil to be placed as fill should be geotechnically accepted by Leighton. Preferably at least 3 working days prior to proposed import to the site, the contractor should provide Leighton pertinent information of the proposed import soil, such as location of the soil, whether stockpiled or native in place, and pertinent geotechnical reports if available. We recommend that a Leighton representative visit the proposed import site to observe the soil conditions and obtain representative soil samples. Potential issues may include soil that is more expansive than onsite soil, soil that is too wet, soil that is too rocky or too dissimilar to onsite soils, oversize material, organics, debris, etc.

3.1.5 Shrinkage and Subsidence

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Subsidence occurs as natural ground is moisture-conditioned and densified to receive fill. Field and laboratory data used in our calculations included laboratory-measured maximum dry densities for soil types encountered at the subject site and the measured in-place densities of soils encountered. We anticipate the following earth volume changes will occur during grading:

Shrinkage	Approximately 15 percent (alluvium) ±3%. Approximately 5 percent (existing compacted fill) ±3%
Subsidence	Approximately 0.10 foot (alluvium)

The level of fill compaction, variations in the dry density of the existing soils and other factors influence the amount of volume change. Some adjustments to earthwork volume should be anticipated during grading of the site.

3.2 Recommendations for Foundations

Based on our study, conventional shallow foundations or post-tensioned foundations may be used to support the loads of 1- to 3-story wood-frame

structures. Overexcavation and recompaction of the footing subgrade soil should be performed as detailed in Section 3.1. If taller structures are planned, additional evaluation should be provided based on the proposed design. The following design parameters are based on soils with a low expansion potential. Additional testing of the soils expansion should be conducted at the conclusion of site grading.

3.2.1 Minimum Embedment and Width

Footings for one to three-story structures should have a minimum embedment depth in accordance with California Building Code (CBC) requirements, with a minimum width of 24 and 15 inches for isolated and continuous footings, respectively.

3.2.2 Allowable Bearing

An allowable bearing pressure of 2,000 pounds-per-square-foot (psf) may be used, based on the minimum embedment depth and width above. This allowable bearing value may be increased by 250 psf per foot increase in depth or width to a maximum allowable bearing pressure of 4,000 psf. If additional allowable bearing pressure is needed, this should be evaluated on a case-by-case basis. These allowable bearing pressures are for total dead load and sustained live loads. Footing reinforcement should be designed by the structural engineer.

3.2.3 Lateral Load Resistance

Soil resistance available to withstand lateral loads on a shallow foundation is a function of the frictional resistance along the base of the footing and the passive resistance that may develop as the face of the structure tends to move into the soil. The frictional resistance between the base of the foundation and the subgrade soil may be computed using an allowable coefficient of friction of 0.35. The passive resistance may be computed using an allowable equivalent fluid pressure of 250 pounds per cubic foot (pcf), assuming there is constant contact between the footing and undisturbed soil. Friction and passive pressure may be combined without reduction, provided the footings can move laterally sufficiently to develop passive pressure (approximately ¼ inch); otherwise, friction alone should be assumed.

3.2.4 Increase in Bearing and Friction - Short Duration Loads

The allowable bearing pressure and coefficient of friction values may be increased by one-third when considering loads of short duration, such as those imposed by wind and seismic forces.

3.2.5 Settlement Estimates

The recommended allowable bearing pressure is generally based on a total allowable, post-construction settlement of 1 inch. Differential settlement due to static loading is estimated at ½ inch over a horizontal distance of 40 feet. Since settlement is a function of footing sustained load, size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists.

As discussed in Section 2.5.2, the potential total seismic settlement is estimated to be about 2½ to 3½ inches for the design earthquake in the sites current state. This is primarily due to loose sands encountered within the upper 10 feet. Seismic settlement is reduced to about 1½ inches after preparing building pads in accordance with our over excavation and compaction recommendations in Section 3.1. Differential settlement due to seismic loading is estimated to be less than 1 inch over a horizontal distance of 40.

3.3 Recommendations for Slabs-On-Grade

Slabs-on-grade should be designed by the structural engineer in accordance with the current CBC for a soil with a low expansion potential. Where conventional light floor loading conditions exist, the following minimum recommendations should be used. More stringent requirements may be required by local agencies, the structural engineer, the architect, or the CBC. Laboratory testing should be conducted at the end of rough grading to evaluate the expansion index of near-surface subgrade soils. Slabs-on-grade should have the following minimum recommended components:

- Subgrade Moisture Conditioning: The subgrade soil should be moisture conditioned to 2 percentage points above optimum moisture content to a minimum depth of 12 inches prior to placing the moisture barrier, steel or concrete.

- Concrete and Structural Design Thickness: Slabs-on-grade should be designed by the structural engineer, but should be at least 4 inches thick (this is referring to the actual minimum thickness, not the nominal thickness). Reinforcing steel should be designed by the structural engineer, but as a minimum (for conventionally reinforced slabs) should be No. 3 rebar placed at 18 inches on center, each direction, mid-depth in the slab.

  Minor cracking of the concrete as it cures, due to drying and shrinkage is normal and should be expected. However, cracking is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, aggregate that is not sufficiently clean, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected. Low-slump concrete can reduce the potential for shrinkage cracking. Additionally, reinforcement in slabs and foundations can generally reduce the potential for shrinkage cracking. The structural engineer should consider these and other pertinent concrete design and construction considerations in slab design and specifications.

3.3.1 Slab Underlayment for Moisture Vapor Retarding

Because moisture vapor from the underlying soils will be transmitted through slabs-on-grade without preventive measures, slab underlayment for moisture vapor retarding should be designed by qualified professionals (such as the structural engineer and/or architect) where control of moisture vapor transmission through slabs is considered important to this project (such as where moisture-sensitive floor coverings or equipment are planned). Slab underlayment typically includes a moisture vapor retarder membrane (such as 10-mil thick or greater), underlain by a capillary break and provisions for protection of the vapor retarder during construction. The structural engineer and/or architect should specify pertinent slab and concrete design parameters, such as whether a sand blotter layer should be placed over the vapor retarder (ACI does not recommend placing sand under the slab and above the vapor barrier, but rather recommends specific concrete properties and curing procedures to mitigate cracking/curling during curing, such as wet curing of the slab to reduce the potential of rapid top hydration).

Moisture retarders can reduce, but not eliminate moisture vapor rise from the underlying soils up through the slab. Moisture retarders should be designed and constructed in accordance with applicable American Concrete Institute (ACI), Portland Cement Association, Post-Tensioning Institute, ASTM International, and California Building Code requirements and guidelines.

Leighton does not practice in the field of moisture vapor transmission evaluation/mitigation, since this does not fall under the geotechnical discipline. Therefore, we recommend that a qualified person, such as the flooring subcontractor, structural engineer, and/or architect, be consulted to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. That person (or persons) should provide recommendations for mitigation of potential adverse impact of moisture vapor transmission on various components of the structures as deemed appropriate. In addition, the recommendations in this report and our services in general are not intended to address mold prevention, since we, along with geotechnical consultants in general, do not practice in the area of mold prevention. If specific recommendations are desired, a professional mold prevention consultant should be contacted.

3.4 Seismic Design Parameters

Seismic parameters presented in this report should be considered during project design. In order to reduce the effects of ground shaking produced by regional seismic events, seismic design should be performed in accordance with the current California Building Code. The CBC seismic design parameters listed in of Section 2.4.2 of this report should be considered for the seismic analysis of the subject site.

3.5 Lateral Earth Pressures

We recommend that retaining walls be backfilled with very low expansive soil and constructed with a backdrain in accordance with the recommendations provided on Figure 3, *Retaining Wall Backfill and Subdrain Detail*. Using expansive soil as retaining wall backfill will result in higher lateral earth pressures exerted on the wall and are, therefore, not recommended. Based on these recommendations, the following parameters may be used for the design of conventional retaining walls:

Table 1 - Lateral Earth Pressures

Equivalent Fluid Pressure (pcf)	
Condition	**Level Backfill**
Active	40
At-Rest	60
Passive	350 (Maximum of 5,000 psi)

The above values do not contain an appreciable factor of safety, so the structural engineer should apply the applicable factors of safety and/or load factors during design.

Cantilever walls that are designed to yield at least 0.001H, where H is equal to the wall height, may be designed using the active condition. Rigid walls and walls braced at the top should be designed using the at-rest condition.

Passive pressure is used to compute soil resistance to lateral structural movement. In addition, for sliding resistance, a frictional resistance coefficient of 0.35 may be used at the concrete and soil interface. The lateral passive resistance should be taken into account only if it is ensured that soil providing passive resistance, embedded against the foundation elements, will remain intact with time. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of the soil over the wall footing.

In addition to the above lateral forces due to retained earth, surcharge due to improvements, such as an adjacent structure or traffic loading, should be considered in the design of the retaining wall. Loads applied within a 1:1 projection from the surcharging structure on the stem of the wall should be considered in the design. A third of uniform vertical surcharge-loads should be applied as a horizontal pressure on cantilever (active) retaining walls, while half of uniform vertical surcharge-loads should be applied as a horizontal pressure on braced (at-rest) retaining walls. To account for automobile parking surcharge, we suggest that a uniform horizontal pressure of 100 psf (for restrained walls) or 70 psf (for cantilever walls) be added for design, where autos are parked within a horizontal distance behind the retaining wall less than the height of the retaining wall stem.

We recommend that the wall designs for walls 6 feet tall or taller be checked seismically using an *additive seismic* Equivalent Fluid Pressure (EFP) of 28 pcf, which is added to the EFP. The *additive seismic* EFP should be applied at the retained midpoint.

Conventional retaining wall footings should have a minimum width of 24 inches and a minimum embedment of 12 inches below the lowest adjacent grade. An allowable bearing pressure of 2,000 psf may be used for retaining wall footing design, based on the minimum footing width and depth. This bearing value may be increased by 300 psf per foot increase in width or depth to a maximum allowable bearing pressure of 4,500 psf.

3.6 Cement Type and Corrosion Protection

Based on the results of laboratory testing, concrete structures in contact with onsite soil will have negligible exposure to water-soluble sulfates in the soil. Therefore, common Type II cement may be used for concrete construction. Concrete should be designed in accordance with ACI 318-14, Section 19.3 (ACI, 2014), adopted by the 2019 CBC (Section 1904.2).

Based on our laboratory testing, the onsite soil is considered moderately corrosive to ferrous metals. Non-metallic underground utilities should be used. As an alternative, corrosion protection of underground metallic utilities should be based on recommendations of a corrosion engineer. Corrosion information presented in this report should be provided to your underground utility contractors and consultation with a Corrosion Engineer should be considered.

3.7 Pavement Design

Based on the design procedures outlined in the current Caltrans Highway Design Manual, and an assumed design R-value of 45, preliminary flexible pavement sections may consist of the following for the Traffic Indices (TI) indicated. Final pavement design should be based on the Traffic Index determined by the project civil engineer and R-value testing provided near the end of grading.

Table 2 - Asphalt Pavement Section Thicknesses

Traffic Index	Asphaltic Concrete (AC) Thickness (inches)	Class 2 Aggregate Base Thickness (inches)
5 or less	3	4
6	3.5	4.5
7	4	6

If the pavement is to be constructed prior to construction of the structures, we recommend that the full depth of the pavement section be placed in order to support heavy construction traffic.

PCC sidewalks should be at least 4 inches thick over prepared subgrade soil, with construction joints no more than 8 feet on center each way, with sections as nearly square as possible. Use of reinforcing will help reduce severity of cracking.

All pavement construction should be performed in accordance with the Standard Specifications for Public Works Construction. Field observations and periodic testing, as needed during placement of the base course materials, should be undertaken to ensure that the requirements of the standard specifications are fulfilled. Prior to placement of aggregate base, the subgrade soil should be processed to a minimum depth of 6 inches, moisture-conditioned, as necessary, and recompacted to a minimum of 90 percent relative compaction. Aggregate base should be moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction.

3.8 Infiltration Recommendations

Infiltration tests performed at depths of about 15 feet yielded a raw infiltration rate of 1.0 inch per hour at location B-1 (central portion of the site) and essntiall no infiltration at location B-2 (southern portion of the site). Considering these results, infiltration into the onsite soils in the south will be marginal at best. Infiltration systems may not be suitable in portions of the site. If infiltration systems are to be considered, additional testing at the location and depth may be warranted. It appears that deep chambers reaching at least 18 to 20 feet bgs or dry wells may be feasible options.

These measured rates are applicable only at the specific locations and depths tested. The incremental infiltration rate as measured during intervals of the test

is defined as the incremental flow rate of water infiltrated, divided by the surface area of the infiltration interface.

We recommend that a correction factor/safety factor be applied to this infiltration rate in conformance with the Los Angeles County Administrative Manual (2014), since monitoring of actual facility performance has shown that actual infiltration rates are lower than for small-scale tests. The small-scale infiltration rate should be divided by a correction factor of at least 3, but the correction/safety factor may be higher based on project specific aspects.

The infiltration rates described herein are for a clean, unsilted infiltration surface in native, sandy alluvial soil. These values may be reduced over time as silting of the basin or chamber occurs. Furthermore, if the basin or chamber bottom is allowed to be compacted by heavy equipment, this value is expected to be significantly reduced. Infiltration of water through soil is highly dependent on such factors as grain size distribution of the soil particles, particle shape, fines content, clay content, and density. Small changes in soil conditions, including density, can cause large differences in observed infiltration rates. Infiltration is not suitable in compacted fill.

It should be noted that during periods of prolonged precipitation, the underlying soils tend to become saturated to greater and greater depths/extents. Therefore, infiltration rates tend to decrease with prolonged rainfall. It is difficult to extrapolate longer-term, full-scale infiltration rates from small-scale tests, and as such, this is a significant source of uncertainty in infiltration rates.

Additional Review and Evaluation

Infiltration rates are anticipated to vary significantly based on the location and depth. Infiltration concepts should be discussed with Leighton as infiltration plans are being developed. Leighton should review all infiltration plans, including locations and depths of proposed facilities and overflows. Further testing may be required depending on the design of infiltration facilities, particularly considering their type, depth and location.

General Design Consideration

The periodic flow of water carrying sediments into the basin or chamber, plus the introduction of wind-blown sediments and sediments from erosion of the basin side walls, can eventually cause the bottom of the basin or chamber to accumulate a layer of silt, which has the potential of significantly reducing the overall infiltration

rate of the basin or chamber. Therefore, we recommend that significant amounts of silt/sediment not be allowed to flow into the facility within stormwater, especially during construction of the project and prior to achieving a mature landscape on site. We recommend that an easily maintained, robust silt/sediment removal system be installed to pretreat storm water before it enters the infiltration facility.

As infiltrating water can seep within the soil strata nearly horizontally for long distances, it is important to consider the impact that infiltration facilities can have on nearby subterranean structures, such as basement walls or open excavations, whether onsite or offsite, and whether existing or planned. Any such nearby features should be identified and evaluated as to whether infiltrating water can impact these. Such features should be brought to Leighton's attention as they are identified.

Infiltration facilities should not be constructed adjacent to or under buildings. Setbacks should be discussed with Leighton during the planning process.

Infiltration facilities should be constructed with spillways or other appropriate means that would cause overfilling to not be a concern to the facility or nearby improvements.

For buried chambers, control/access manhole covers should not contain holes or should be screened to prevent mosquitos from entering the cambers.

Additional Design Considerations (Particularly to Open Basins)

If open basins are planned, additional evaluation may be needed, as the soils that will be exposed at the bottom of the basin are critical to the basin's success. Soils at the bottom of buried chambers are also important, but not as critical to their success, provided the infiltration chamber cuts through sufficiently granular soils.

In general, the rate of infiltration reduces as the head of water in the infiltration facility reduces, and it also reduces with prolonged periods of infiltration. As such, water typically infiltrates much faster near the beginning of and/or immediately after storm events than at times well after a storm when the water level in the facility has receded, since the infiltration rate is then slower due to both lower head and longer overall duration of infiltration. In open basins with compacted or silty bottoms, this could be problematic, in that, even if the basin had already infiltrated significant amounts of storm water, the lower several inches or feet of water could remain in the basin for an extended period of time, creating a prolonged open-

water safety concern and potential for mosquitos. In a buried/covered infiltration chamber, these conditions would be of less concern.

Parks or play/recreation areas should not be constructed within basin bottoms or below the spillway level.

For open basins and swales, vegetation within the basin bottoms and sides is expected to help reduce erosion and help maintain infiltration rates.

Estimating infiltration rates, especially based on small-scale testing, is inexact and indefinite, and often involves known and unknown soil complexities, potentially resulting in a condition where actual infiltration rates of the completed facility are significantly less than design rates. In open infiltration basins, this could create nuisance water in the basin. As such, enhancements may be needed after completion of the basin if prolonged or frequent standing water is experienced. A potential basin enhancement, if needed, might be to install infiltration trenches or borings in the basin bottom to capture and infiltrate low flows and to help speed infiltration during/after storms; specific recommendations, such as minimum trench/boring depth and media backfill material, would be developed based on conditions observed. Such a contingency should be anticipated for open basins.

Construction Considerations

We recommend that Leighton evaluate the infiltration facility excavations, to confirm that granular, undisturbed alluvium is exposed in the bottoms and sides. Additional excavation or evaluation may be required if silty or clayey soils are exposed.

It is critical to infiltration that the basin or chamber bottom not be allowed to be compacted during construction or maintenance; rubber-tired equipment and vehicles should not be allowed to operate on the bottom. We recommend that at least the bottom 3 feet of the basins or chambers be excavated with an excavator or similar.

If fill material is needed to be placed in the basin, such as due to removal of uncontrolled artificial fill, the fill material should be select and free-draining sand, and should be observed and evaluated by Leighton.

Maintenance Considerations

The infiltration facilities should be routinely monitored, especially before and during the rainy season, and corrective measures should be implemented as/when needed. Things to check for include proper upkeep, proper infiltration, absence of accumulated silt, and that de-silting filters/features are clean and functioning. Pretreatment desilting features should be cleaned and maintained per manufacturers' recommendations. Even with measures to prevent silt from flowing into the infiltration facility, accumulated silt may need to be removed occasionally as part of maintenance.

Additional Review and Evaluation:

Infiltration rates are anticipated to vary significantly based on the location and depth. Infiltration concepts should be discussed with Leighton as infiltration plans are being developed. Leighton should review all infiltration plans, including specific locations and depths of proposed facilities. Further testing may be needed based on the design of infiltration facilities, particularly considering their type, depth and location.

3.9 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations and other excavations should be performed in accordance with project plans, specifications and all OSHA requirements, and the current edition of the California Construction Safety Orders, latest edition. OSHA Type C soils should be assumed for planning purposes.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the slope, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

Cantilever shoring should be designed based on the active fluid pressure presented in the retaining wall section. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 22H, where H (feet) is equal to the depth of the excavation being shored.

During construction, the soil conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor should be responsible for providing the "competent person" required by OSHA, standards to evaluate soil conditions. Close coordination between the competent person and Leighton should be maintained to facilitate construction while providing safe excavations.

3.10 Surface Drainage

Positive surface drainage should be provided to direct surface water away from structures and towards suitable collective drainage facilities. Surface drainage should be provided to prevent ponding of water adjacent to the structures. In general, the area around the buildings should slope away from the buildings. Care should be taken to avoid heavy irrigation, and under-irrigation should also be avoided.

3.11 Additional Geotechnical Services

The geotechnical recommendations presented in this report are based on subsurface conditions as interpreted from limited subsurface explorations and limited laboratory testing. Our geotechnical recommendations provided in this report are based on information available at the time the report was prepared and may change as plans are developed. Additional geotechnical analysis may be required based on final development plans. Leighton should review the site and grading plans when available and comment further on the geotechnical aspects of the project. Geotechnical observation and testing should be conducted during excavation and all phases of grading operations. Our conclusions and recommendations should be reviewed and verified by Leighton during construction and revised accordingly if geotechnical conditions encountered vary from our findings and interpretations. Geotechnical observation and testing should be provided:

- After completion of site clearing.
- During overexcavation of compressible soil.
- During compaction of all fill materials.
- After excavation of all footings and prior to placement of concrete.
- During utility trench backfilling and compaction.
- During pavement subgrade and base preparation.
- When any unusual conditions are encountered.

4.0 LIMITATIONS

This report was based in part on data obtained from a limited number of observations, site visits, soil excavations, samples, and tests. Such information is, by necessity, incomplete. The nature of many sites is such that differing soil or geologic conditions can be present within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, our findings, conclusions, and recommendations presented in this report are based on the assumption that Leighton and Associates, Inc. will provide geotechnical observation and testing during construction.

This report was prepared for the sole use of Lewis Land Developers and their design team for application to the design of the proposed development in accordance with generally accepted geotechnical engineering practices at this time in California.

See the Geoprofessional Business Association (GBA) insert on the following page for important information about this geotechnical engineering report.

DRAFT

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled*. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be*, and, in general, *if you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed*. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only*. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.*

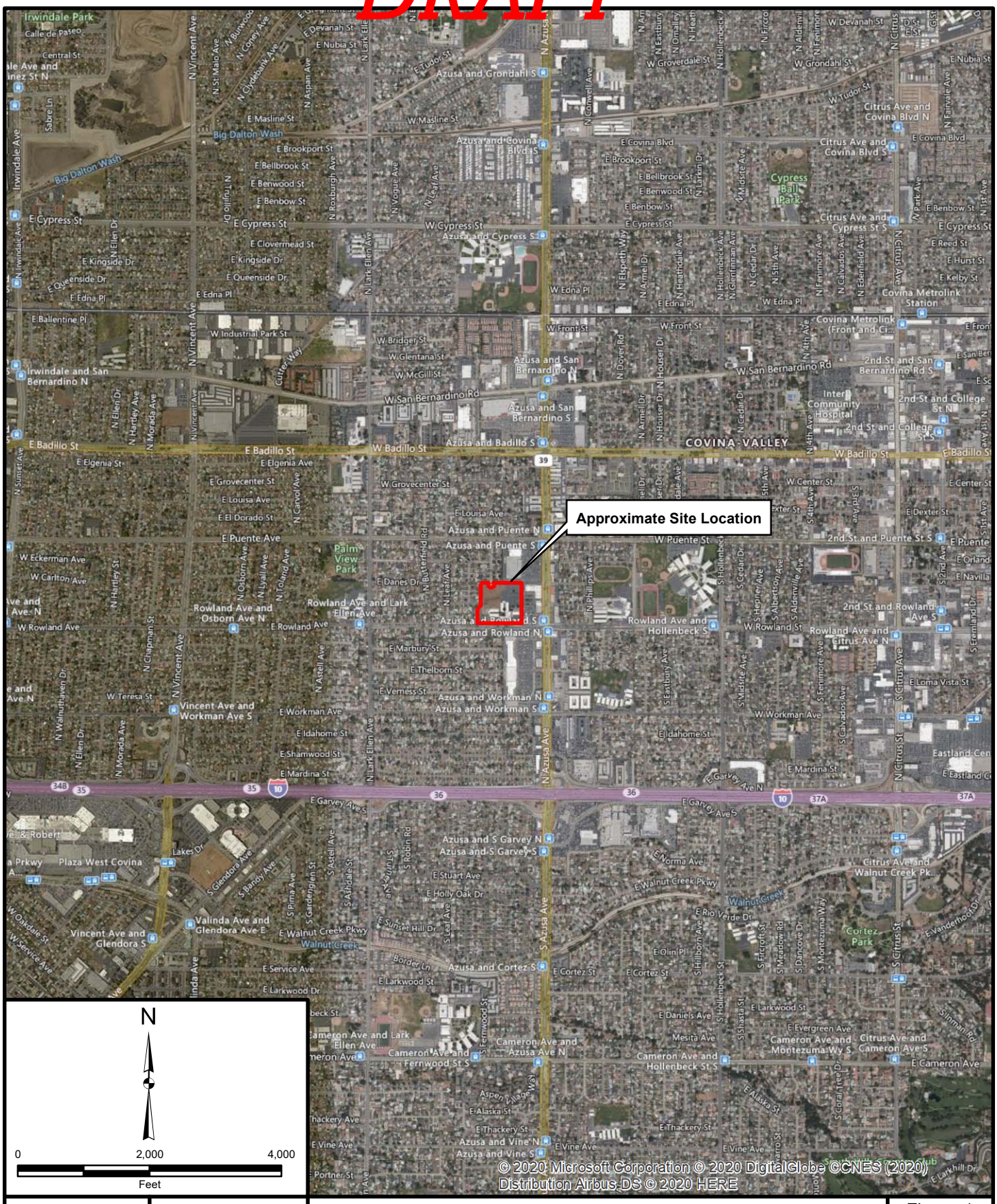
Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration.*** Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are not building-envelope or mold specialists.***

GEOPROFESSIONAL BUSINESS ASSOCIATION

Telephone: 301/565-2733
e-mail: info@geoprofessional.org www.geoprofessional.org

DRAFT



Project: 12064.004	Eng/Geol: JDH/PB
Scale:1 " = 2,000 '	Date: April 2020

Base Map: ESRI ArcGIS Online 2020
Thematic Information: Leighton
Author: Leighton Geomatics (kmanchikanti)

SITE LOCATION MAP

Proposed Residential Development
Former Pioneer School Site
E. Rowland Avenue, City of West Covina, California

Figure 1

Leighton

Map Saved as V:\Drafting\12064\004\Maps\12064.004_F01_SLM_2020-04-14.mxd on 4/16/2020 1:10:12 PM

DRAFT

Project: 12064.004	Eng/Geol: JDH/PB
Scale: 1 " = 100 '	Date: April 2020

Base Map: ESRI ArcGIS Online 2020
Thematic Information: Leighton
Author: Leighton Geomatics (kmanchikanti)

BORING LOCATION MAP

Proposed Residential Development, Former Pioneer School Site
E. Rowland Avenue
City of West Covina, California

Figure 2

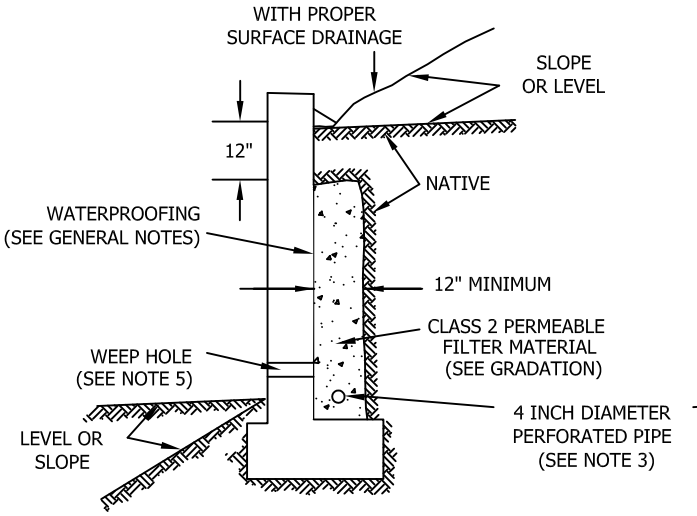
Leighton

Map Saved as V:\Drafting\12064\004\Maps\12064.004_F02_BLM_2020-04-14.mxd on 4/16/2020 2:12:38 PM

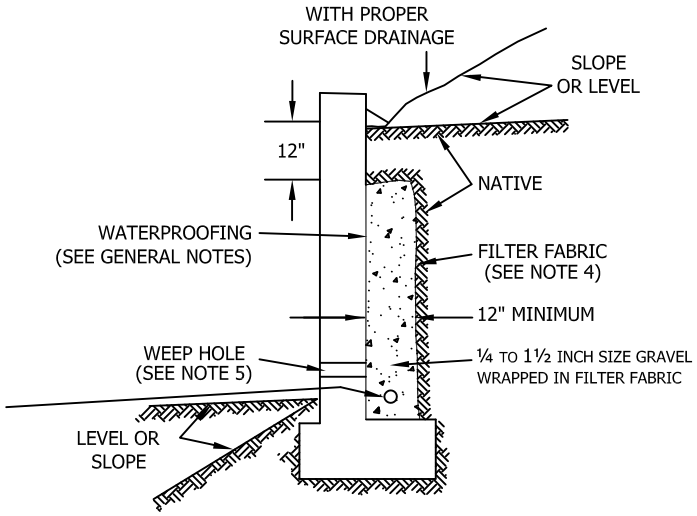
DRAFT

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL



OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC



Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

Leighton

Figure 3

P:\Drafting\templates\details\retain-wall-backfill-and subdrain.dwg (7/00)

APPENDIX A

REFERENCES

APPENDIX A

References

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI-318-14) and Commentary (ACI 318-14), and ACI Standard.

Blake, T.F., 2011, EQFAULT and EQSEARCH, Computer Programs for the Estimation of Peak Horizontal Acceleration from 3-D Fault Sources, Windows Version 3.00b, database updated January, 2011.

California Building Standards Commission, 2019, 2019 California Building Code, California Code of Regulations, Title 24, Based on 2019 International Building Code, effective January 1, 2020.

California Department of Water Resources (CDWR), 2018, California Statewide Groundwater Elevation Monitoring (CASGEM).

California Geologic Survey (CGS), 1999, Earthquake Zones of Required Investigation, Baldwin Park Quadrangle, Official Map, Released March 25, 1999, scale 1:24,000.

California Geologic Survey (CGS), 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, Revised and Re-Adopted on September 11, 2008.

California Geological Survey (CGS), 2006, Seismic Hazard Zone Report for the Baldwin Park 7.5-Minuite Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 022, Revised January 13, 2006.

California Geologic Survey (CGS), 2018, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners/Developers and Geoscience Practitioners for Assessing Fault Hazards In California, Special Publication 42, Revised 2018

Dibblee, T.W. and Ehrenspeck, H.E., 1999, Geologic Map of the El Monte and Baldwin Park Quadrangles, Los Angeles County, California: U.S. Geological Survey, scale 1:24,000.

Los Angeles County, Department of Public Works, 2014, Administrative Manual, Guidelines for Design, Investigation, and Reporting Low Impact Development Stormwater Infiltration, GS200.01, dated December 31, 2014.

Martin, G. R., and Lew, M., ed., 1999, “Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California,” Southern California Earthquake Center, dated March 1999.

Nationwide Environmental Title Research, 2018, NETR Online, Historic Aerials, website: https://www.historicaerials.com, accessed June 12, 2019.

Office of Statewide Health Planning and Development, 2019, OSHPD Seismic Design Maps, website: https://seismicmaps.org/

Public Works Standard, Inc., 2018, Greenbook, Standard Specifications for Public Works Construction: BNI Building News, Anaheim, California.

United States Geological Survey (USGS), 2008c, National Seismic Hazard Maps – Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

United States Geologic Survey (USGS), 2020, Earthquake Hazards Program, Unified Hazard Tool, <https://earthquake.usgs.gov/hazards/interactive/>.

Youd, T.L., Idriss, I.M., Andrus, R.D., Arango, I., Castro, G., Christian, J.T., Dobry, R., Finn, L., Harder, L.F., Hynes, M.E., Ishihara, K., Koester, J.P., Liao, S.C., Marcuson, W.F. III, Martin, G.R., Mitchell, J.K., Moriwaki, Y., Power, M.S., Robertson, P.K., Seed, R.B., Stokoe, K.H. II, 2001, “Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils”, Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 10, October 2001.

DRAFT

APPENDIX B

GEOTECHNICAL BORING LOGS AND INFILTRATION TEST RESULTS

DRAFT

GEOTECHNICAL BORING LOG B-1

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~469'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0			B-1				SM	**Artificial Fill (Af):** @0': Grass at the surface. SILTY SAND (SM): orangish brown; moist, fine grained.	
				R-1	5 7 16	104	4		@2.5':SILTY SAND (SM): orangish brown, medium dense, moist, fine grained, pinhole pores, trace rootlets.	
	5			R-2	8 16 24	111	4		**Quaternary Alluvium (Qal):** @5': SILTY SAND (SM): orangish brown, medium dense, moist, fine grained, pinhole pores, trace rootlets.	
	10			R-3	22 28 35	110	4		@10': SILTY SAND (SM): orangish brown, dense, moist, fine grained, trace fine subangular gravel, pinhole pores.	
	15			R-4	11 20 21			SP	@15': SAND (SP): light yellowish brown, medium dense, fine to coarse grained, some fine subangular gravel.	
	20			R-5	22 35 35				@20': SAND (SP): light yellowish brown, dense; light yellow brown, moist, fine to coarse grained, some fine subangular to subrounded gravel.	
	25								**Total Depth: 21.5 feet** **No groundwater observed** **Backfilled with soil cuttings**	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

DRAFT

GEOTECHNICAL BORING LOG B-2

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~466'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0			B-1				SM	**Artificial Fill (Af):** @0': Grass at the surface. SILTY SAND (SM): dark brown, moist, fine grained.	
				R-1	2 2 3	104	12		@2.5': SILTY SAND (SM): dark brown, very loose, moist, fine grained, pinhole pores, trace roots.	
	5			R-2	2 4 7	104	9		**Quaternary Alluvium (Qal):** @5': SILTY SAND (SM): orangish brown, loose, moist fine grained, trace rootlets.	
	10			R-3	4 6 7	114	11		@10': SILTY SAND (SM): orangish brown, loose, moist, fine grained, trace fine subangular gravel.	
	15			R-4	5 17 24			SP	@15': SAND (SP): light yellowish brown, medium dense, moist, fine to coarse grained, few fine gravel, trace medium gravel, subangular to subround, some mechanical fracturing; weak cementation.	
	20			R-5	7 40 42				@20': SAND (SP): light yellowish brown, dense, moist, fine to coarse grained, poorly graded, few fine to medium gravel.	
	25								**Total Depth: 21.5 feet** **No groundwater observed** **Backfilled with soil cuttings**	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

DRAFT

GEOTECHNICAL BORING LOG B-3

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~469'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0								@0': 4 inches of asphalt concrete over 6 inches of base.	
				B-1				SM	**Artificial Fill (Af):** @0.8': SILTY SAND (SM): dark brown, moist, fine grained.	
				R-1	2 3 3	109	11		@2.5': SILTY SAND (SM): dark brown, very loose, moist, fine grained, few micacous grains.	
	5			R-2	3 4 7	113	9		**Quaternary Alluvium (Qal):** @5': SILTY SAND (SM): dark brown, loose, moist, fine to coarse grained, trace quartzite fragments.	
	10			R-3	3 5 6	111	15		@10': Silty SAND; loose; dark brown; moist; some fine sand; few medium to coarse sand; some silt; trace quartzite fragments, fine mechanical fracturing.	
	15			R-4	16 36 42	119	2	SM-SP	@15': SAND to SILTY SAND (SM-SP): yellowish brown, dense, moist, fine to coarse grained, poorly graded, few finesubrounded to angular gravel.	
	20			R-5	17 50/6"			SP	@20': SAND (SP):yellowish brown, very dense, moist; some fine sand, fine to coarse grained, poorly graded, few fine angular and subangular gravel, trace carbonates.	
	25			S-6	35 50/5"				@25': SAND (SP): yellowish brown, very dense, moist, fine to coarse grained, poorly graded, few fine angular and subround gravel.	
	30									

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

DRAFT
GEOTECHNICAL BORING LOG B-3

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~469'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			R-7	12 12 20			ML-CL	@30': SANDY SILT to SANDY CLAY (ML-CL): orangish brown, very stiff, moist, some fine sand, trace coarse sand.	
	35			S-8	5 8 8				@35': SILT to CLAY with SAND (ML-CL): orangish brown, stiff to very stiff, moist, with fine sand.	
	40			R-9	10 14 17			SC	@40': CLAYEY SAND (SC): orangish brown, medium dense, moist, fine to coarse grained.	
	45			S-10	30 50/3.5"			SM	@45': SILTY SAND (SM): yellowish brown, very dense, moist, fine to coarse grained, trace subangular to angular gravel, fractured quartzite pieces.	
	50			R-11	21 23 34				@50': SILTY SAND (SM): orangish brown, dense, moist, fine grained.	
	55								**Total Depth: 51.5 feet** **No groundwater observed** **Backfilled with soil cuttings, tamped, and patched with asphalt**	
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

DRAFT

GEOTECHNICAL BORING LOG B-4

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~467'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0							SM	**Artificial Fill (Af):** @0': Grass at the surface. SILTY SAND (SM): dark brown, moist, fine grained.	
				R-1	3 3 3	104	11		@2.5': SILTY SAND (SM): dark brown, very loose, moist, fine grained, few roots.	
	5			R-2	3 2 3	107	9		**Quaternary Alluvium (Qal):** @5': SILTY SAND (SM): orangish brown, very loose, moist, fine grained, pinhole pores, trace roots.	
	10			R-3	13 12 13	113	6		@10': SILTY SAND (SM): orangish brown, medium dense, moist, fine grained, trace fine subngular to subround gravel.	
	15			R-4	3 5 5	111	14		@15': SILTY SAND (SM): orangish brown, loose, moist, fine grained, few fine subangular to subround gravel.	
	20			R-5	30 50/5"			SP	@20': SAND (SP): light yellowish brown, very dense, moist,fine to coarse grained, poorly graded, few to little subangular gravel.	
									Total Depth: 21.5 feet **No groundwater observed** **Backfilled with soil cuttings**	
	25									
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

DRAFT

GEOTECHNICAL BORING LOG B-5

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~473'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0							SM	@0': 3 inches of asphalt concrete over 4 inches of base. **Artificial Fill (Af):** @0.6': SILTY SAND (SM): dark brown, moist, fine grained.	
				R-1	2 3 4	107	18		@2.5': SILTY SAND (SM): dark brown, very loose, moist, fine grained, trace fine gravel in cuttings, few roots.	
	5			R-2	4 7 10	116	11		**Quaternary Alluvium (Qal):** @5': SILTY SAND (SM): dark brown, medium dense, moist, fine grained, trace roots.	
	10			R-3	4 6 6	115	11		@10': SILTY SAND (SM): orangish brown, loose, moist, fine grained.	
	15			R-4	3 3 4	112	11		@15': SILTY SAND (SM): orangish brown, very loose, moist, fine grained.	CO
	20			R-5	5 11 22	117	8		@20': SILTY SAND (SM): orangish brown, medium dense, moist, fine grained, few fine angular to subangular gravel at sampled interval at depths of 21' - 21.5', few micacous grains, medium gravel in sampler shoe. **Total Depth: 21.5 feet** **No groundwater observed** **Backfilled with soil cuttings and patched with asphalt**	
	25									
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

DRAFT
GEOTECHNICAL BORING LOG B-6

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~469'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0			B-1				SC	**Artificial Fill (Af):** @0': Grass field at the surface. CLAYEY SAND (SC): dark brown, moist, fine grained, with minor amounts of silt, fine subround gravel in cuttings.	-200, MD, EI, CR
				R-1	5 5 4	99	13		@2.5': CLAYEY SAND (SC): dark brown, loose, moist, fine grained, with minor amounts of silt, few roots throughout sample.	
	5			R-2	3 4 7	112	7	ML-SM	**Quaternary Alluvium (Qal):** @5': SANDY SILT to SILTY SAND (ML-SM): orangish brown, loose, moist, fine grained.	
	10			R-3	7 23 28	112	5		@10': SANDY SILT to SILTY SAND (ML-SM): orangish brown, dense, moist, fine grained.	
	15			R-4	7 16 20			SM	@15': SILTY SAND (SM): orangish brown, medium dense, moist, fine to coarse grained, trace fine subangular gravel, pinhole pores.	
	20			R-5	8 21 30			SP	@20': SAND (SP): yellowish brown, dense, moist, fine to coarse grained, poorly graded, little fine angular to subangular gravel.	
	25			S-6	13 25 50/5"				@25': SAND (SP): yellowish brown, very dense, moist, fine to coarse grained, poorly graded, little fine angular to subangular gravel.	
	30									

SOIL DESCRIPTION: This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

DRAFT

GEOTECHNICAL BORING LOG B-6

Project No.	12064.004	**Date Drilled**	3-24-20
Project	Pioneer Geo Investigation	**Logged By**	MM
Drilling Co.	2R Drilling	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	~469'
Location	See Figure 2- Boring Location Map	**Sampled By**	MM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			R-7	50/5"				@30': SAND (SP): yellowish brown, very dense, moist, fine to coarse grained, poorly graded, minor amounts of silt, few fine subangular to angular gravel.	
	35			S-8	13 40 44				@35': SAND (SP): yellowish brown, very dense, moist, fine to coarse grained, poorly graded, minor amounts of silt, few fine subangular to angular gravel.	
	40			R-9	16 14 16			ML-CL	@40': SILT to CLAY (ML-CL): orangish brown, stiff, moist, fine sand lenses, low plasticity.	
	45			S-10	4 13 25			SM-SC	@45': SILTY SAND to CLAYEY SAND (SM-SC): orangish brown, dense, moist, fine grained, minor amounts of clay.	
	50			R-11	12 20 24			SM	@50': SILTY SAND (SM): light orangish to yellowish brown, medium dense, moist, fine grained.	
									Total Depth: 51.5 feet **No groundwater observed** **Backfilled with soil cuttings**	
	55									
	60									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

DRAFT

Results of Well Permeameter, from USBR 7300-89 Method.

Leighton

Project:	Pioneer Geo Inv 12064.004
Exploration #/Location:	B1
Depth Boring drilled to (ft):	15
Tested by:	JDO
USCS Soil Type in test zone:	SM
Weather (start to finish):	Sunny
Liquid Used/pH:	Water
Measured boring diameter:	10.5 in.
Approx Depth to GW below GS:	125 ft
Well Prep:	

5.25 in. Well Radius

Initial estimated Depth to Water Surface (in.): 132
Average depth of water in well, "h" (in.): 46
approx. h/r: 8.8
Tu (Fig. 8) (ft): 114.0
Tu>3h?: yes, OK

Cross-sectional area for vol calcs (in.^2): 34.6

	ft	in.	Total (in.)	
Depth to Bot of well (or top of soil over Bentonite)	14. ft	10. in.	178	
Pilot Tube stickup (+ is above ground)		0. in.	0	
Depth to top of sand outside of casing from top of pilot tube				
Depth to top of float assembly from top of pilot tube	9. ft	6. in.	114	114 Depth below GS (in.)
Float Assembly ID		E		
Float assembly Extension length (in.)		34		

Diameter of barrels (in.):	22.5
No. of Supply barrels:	1

Total Area of barrels (in.^2): 397.4

Field Data **Calculations**

Date	Time	Water Level in Supply Barrel (in.)	Depth to WL in Boring (measured from top of pilot tube)		Water Temp (deg F)	Comments	Δt (min)	Total Elapsed Time (min.)	Depth to WL in well (in.)	h, Height of Water in Well (in.)	Δh (in.)	Avg. h	Vol Change (in.^3)			Flow (in^3/ min)	q, Flow (in^3/ hr)	V (Fig 9)	K20, Coef. Of Perme-ability at 20 deg C (in./hr)	Infiltration Rate [flow/surf area] (in./hr) (FS=1)
Start Date	Start time:		ft	in.									from supply	from Δh	Total					
3/30/2020	9:27																			
-																				
3/30/20	9:27	33						0	0.0	178.0										
3/30/20	9:37	25	11.22				10	10	134.6	43.4	-134.6	111	3179	4658	7838	784	47026	0.9	10.23	**11.60**
3/30/20	9:49	23	11.23				12	22	134.8	43.2	-0.12	43	795	4	799	67	3995	0.9	0.60	**2.43**
3/30/20	9:59	21.5	11.23				10	32	134.8	43.2	0	43	596	0	596	60	3577	0.921	0.54	**2.18**
3/30/20	10:09	20	11.23				10	42	134.8	43.2	0	43	596	0	596	60	3577	0.9	0.54	**2.18**
3/30/20	10:19	18.75	11.22				10	52	134.6	43.4	0.12	43	497	-4	493	49	2956	0.9	0.44	**1.80**
3/30/20	10:29	17.5	11.22				10	62	134.6	43.4	0	43	497	0	497	50	2981	0.9	0.45	**1.81**
3/30/20	10:39	16.25	11.23				10	72	134.8	43.2	-0.12	43	497	4	501	50	3005	0.9	0.45	**1.83**
3/30/20	10:49	15	11.22				10	82	134.6	43.4	0.12	43	497	-4	493	49	2956	0.9	0.44	**1.80**
3/30/20	11:03	13.25	11.23				14	96	134.8	43.2	-0.12	43	695	4	700	50	2998	0.9	0.45	**1.82**
3/30/20	11:14	12	11.23				11	107	134.8	43.2	0	43	497	0	497	45	2710	0.9	0.41	**1.65**
3/30/20						Refill														
3/30/20	11:20	31	11.2					113	134.4	43.6										
3/30/20	11:30	30	11.22				10	123	134.6	43.4	-0.24	43	397	8	406	41	2434	0.9	0.37	**1.48**
3/30/20	11:40	29	11.23				10	133	134.8	43.2	-0.12	43	397	4	402	40	2409	0.9	0.36	**1.47**
3/30/20	11:50	27.75	11.23				10	143	134.8	43.2	0	43	497	0	497	50	2981	0.9	0.45	**1.82**
3/30/20	12:00	26.5	11.22				10	153	134.6	43.4	0.12	43	497	-4	493	49	2956	0.9	0.44	**1.80**
3/30/20	12:10	25.5	11.22				10	163	134.6	43.4	0	43	397	0	397	40	2384	0.9	0.36	**1.45**
3/30/20	12:20	24.5	11.23				10	173	134.8	43.2	-0.12	43	397	4	402	40	2409	0.9	0.36	**1.47**
3/30/20	12:30	23.5	11.23				10	183	134.8	43.2	0	43	397	0	397	40	2384	0.9	0.36	**1.45**
3/30/20	12:40	22.25	11.24				10	193	134.9	43.1	-0.12	43	497	4	501	50	3005	0.9	0.45	**1.83**
3/30/20	12:50	21.75	11.23				10	203	134.8	43.2	0.12	43	199	-4	195	19	1167	0.9	0.18	**0.71**
3/30/20	1:00	21	11.22				-710	0	134.6	43.4	0.12	43	298	-4	294	0	-25	0.9	0.00	**-0.02**
3/30/20	1:10	20	11.23				10	0	134.8	43.2	-0.12	43	397	4	402	40	2409	0.9	0.36	**1.47**
3/30/20	1:20	19.25	11.23				10	0	134.8	43.2	0	43	298	0	298	30	1788	0.9	0.27	**1.09**
3/30/20	1:30	18.5	11.23				10	0	134.8	43.2	0	43	298	0	298	30	1788	0.9	0.27	**1.09**

template updated: 8/14/19

DRAFT

Results of Well Permeameter, from USBR 7300-89 Method.

Leighton

Project:	LePioneer Geo Inv 12064.004
Exploration #/Location:	B2
Depth Boring drilled to (ft):	15
Tested by:	JDO
USCS Soil Type in test zone:	SM
Weather (start to finish):	Sunny
Liquid Used/pH:	Water
Measured boring diameter:	10.5 in.
Approx Depth to GW below GS:	125 ft
Well Prep:	

5.25 in. Well Radius

Initial estimated Depth to Water Surface (in.): 136
Average depth of water in well, "h" (in.): 41
approx. h/r: 7.9
Tu (Fig. 8) (ft): 113.7
Tu>3h?: yes, OK

Cross-sectional area for vol calcs (in.^2): 34.6

	ft	in.	Total (in.)	
Depth to Bot of well (or top of soil over Bentonite)	14. ft	9. in.	177	
Pilot Tube stickup (+ is above ground)		0. in.	0	
Depth to top of sand outside of casing from top of pilot tube				
Depth to top of float assembly from top of pilot tube	10. ft	1.5 in.	122	121.5 Depth below GS (in.)
Float Assembly ID		F		
Float assembly Extension length (in.)		30		

Diameter of barrels (in.):	22.5
No. of Supply barrels:	1

Total Area of barrels (in.^2): 397.4

Field Data | **Calculations**

Date	Time	Water Level in Supply Barrel (in.)	Depth to WL in Boring (measured from top of pilot tube)		Water Temp (deg F)	Comments	Δt (min)	Total Elapsed Time (min.)	Depth to WL in well (in.)	h, Height of Water in Well (in.)	Δh (in.)	Avg. h	Vol Change (in.^3)			Flow (in^3/ min)	q, Flow (in^3/ hr)	V (Fig 9)	K20, Coef. Of Perme-ability at 20 deg C (in./hr)	Infiltration Rate [flow/surf area] (in./hr) (FS=1)
Start Date	Start time:		ft	in.									from supply	from Δh	Total					
3/30/2020	9:35																			
-																				
3/30/20	9:35	31.5						0	0.0	177.0										
3/30/20	9:42	28	11.61				7	7	139.3	37.7	-139.3	107	1391	4820	6211	887	53239	0.9	15.18	**13.53**
3/30/20	9:52	27.75	11.54				10	17	138.5	38.5	0.84	38	99	-29	70	7	422	0.9	0.08	**0.29**
3/30/20	10:02	27.5	11.56				10	27	138.7	38.3	-0.24	38	99	8	108	11	646	0.921	0.12	**0.44**
3/30/20	10:12	27.5	11.56				10	37	138.7	38.3	0	38	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	10:22	27.25	11.55				10	47	138.6	38.4	0.12	38	99	-4	95	10	571	0.9	0.10	**0.39**
3/30/20	10:32	27	11.56				10	57	138.7	38.3	-0.12	38	99	4	104	10	621	0.9	0.11	**0.42**
3/30/20	10:42	27	11.57				10	67	138.8	38.2	-0.12	38	0	4	4	0	25	0.9	0.00	**0.02**
3/30/20	10:52	26.75	11.55				10	77	138.6	38.4	0.24	38	99	-8	91	9	546	0.9	0.10	**0.37**
3/30/20	11:05	26.5	11.55				13	90	138.6	38.4	0	38	99	0	99	8	459	0.9	0.08	**0.31**
3/30/20	11:22	26.25	11.56				17	107	138.7	38.3	-0.12	38	99	4	104	6	365	0.9	0.07	**0.25**
3/30/20	11:32	26.25	11.55				10	117	138.6	38.4	0.12	38	0	-4	-4	0	-25	0.9	0.00	**-0.02**
3/30/20	11:42	26	11.54				10	127	138.5	38.5	0.12	38	99	-4	95	10	571	0.9	0.10	**0.39**
3/30/20	11:52	25.75	11.54				10	137	138.5	38.5	0	39	99	0	99	10	596	0.9	0.11	**0.40**
3/30/20	12:02	25.75	11.54				10	147	138.5	38.5	0	39	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	12:12	25.5	11.53				10	157	138.4	38.6	0.12	39	99	-4	95	10	571	0.9	0.10	**0.39**
3/30/20	12:22	25.5	11.53				10	167	138.4	38.6	0	39	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	12:32	25.5	11.53				10	177	138.4	38.6	0	39	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	12:42	25.25	11.54				10	187	138.5	38.5	-0.12	39	99	4	104	10	621	0.9	0.11	**0.42**
3/30/20	12:52	25.25	11.54				10	197	138.5	38.5	0	39	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	1:02	25.25	11.54				-710	0	138.5	38.5	0	39	0	0	0	0	0	0.9	0.00	**0.00**
3/30/20	1:12	25	11.53				10	0	138.4	38.6	0.12	39	99	-4	95	10	571	0.9	0.10	**0.39**
3/30/20	1:22	25	11.54				10	0	138.5	38.5	-0.12	39	0	4	4	0	25	0.9	0.00	**0.02**
3/30/20	1:32	24.75	11.53				10	0	138.4	38.6	0.12	39	99	-4	95	10	571	0.9	0.10	**0.39**

template updated: 8/14/19

DRAFT

APPENDIX C

LABORATORY TEST RESULTS

DRAFT

Leighton

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Lewis Pioneer | Tested By : O. Figueroa | Date: 04/07/20

Project No. : 12604.004 | Input By: A. Santos | Date: 04/15/20

Boring No.	B-6			
Sample No.	B-1			
Sample Depth (ft)	0-5			
Soil Identification:	Dark brown (SC-SM)g			
Wet Weight of Soil + Container (g)	116.37			
Dry Weight of Soil + Container (g)	116.04			
Weight of Container (g)	67.73			
Moisture Content (%)	0.68			
Weight of Soaked Soil (g)	100.11			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	307			
Crucible No.	14			
Furnace Temperature (°C)	860			
Time In / Time Out	9:00 / 9:45			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	19.6893			
Wt. of Crucible (g)	19.6883			
Wt. of Residue (g) (A)	0.0010			
PPM of Sulfate (A) x 41150	41.15			
PPM of Sulfate, Dry Weight Basis	**41**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	30			
ml of AgNO3 Soln. Used in Titration (C)	0.9			
PPM of Chloride (C -0.2) * 100 * 30 / B	70			
PPM of Chloride, Dry Wt. Basis	**70**			

pH TEST, DOT California Test 643

pH Value	**7.64**			
Temperature °C	20.5			

DRAFT

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name:	Lewis Pioneer		Tested By :	S. Seiler	Date: 04/07/20
Project No. :	12604.004		Input By:	A. Santos	Date: 04/15/20
Boring No.:	B-6		Depth (ft.) :	0-5	
Sample No. :	B-1				

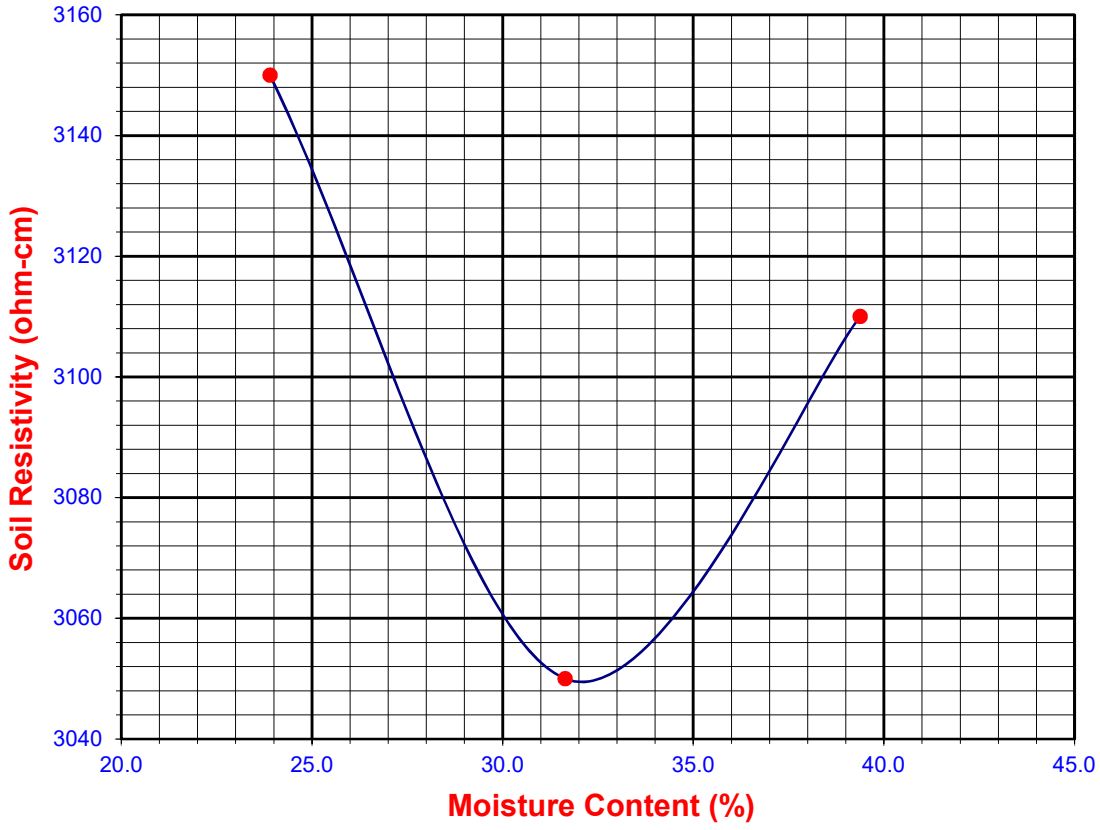
Soil Identification:* Dark brown (SC-SM)g

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	30	23.90	3150	3150
2	40	31.64	3050	3050
3	50	39.38	3110	3110
4				
5				

Moisture Content (%) (MCi)	0.68
Wet Wt. of Soil + Cont. (g)	116.37
Dry Wt. of Soil + Cont. (g)	116.04
Wt. of Container (g)	67.73
Container No.	
Initial Soil Wt. (g) (Wt)	130.10
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
3050	**32.20**	**41**	**70**	**7.64**	**20.5**



DRAFT

Leighton

EXPANSION INDEX of SOILS

ASTM D 4829

Project Name:	Lewis Pioneer	Tested By:	J. Gonzales	Date:	04/07/20
Project No.:	12604.004	Checked By:	A. Santos	Date:	04/18/20
Boring No.:	B-6	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Dark brown silty clayey sand with gravel (SC-SM)g				

Dry Wt. of Soil + Cont. (g)	1000.00
Wt. of Container No. (g)	0.00
Dry Wt. of Soil (g)	1000.00
Weight Soil Retained on #4 Sieve	0.00
Percent Passing # 4	100.00

MOLDED SPECIMEN	Before Test	After Test
Specimen Diameter (in.)	4.01	4.01
Specimen Height (in.)	1.0000	1.0065
Wt. Comp. Soil + Mold (g)	618.30	430.00
Wt. of Mold (g)	208.10	0.00
Specific Gravity (Assumed)	2.70	2.70
Container No.	O	O
Wet Wt. of Soil + Cont. (g)	819.60	638.10
Dry Wt. of Soil + Cont. (g)	751.90	584.43
Wt. of Container (g)	0.00	208.10
Moisture Content (%)	9.00	14.26
Wet Density (pcf)	123.7	128.9
Dry Density (pcf)	113.5	112.8
Void Ratio	0.485	0.495
Total Porosity	0.327	0.331
Pore Volume (cc)	67.6	69.0
Degree of Saturation (%) [S_{meas}]	**50.1**	77.8

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
04/07/20	14:50	1.0	0	0.5800
04/07/20	15:00	1.0	10	0.5795
Add Distilled Water to the Specimen				
04/07/20	16:01	1.0	61	0.5855
04/08/20	7:45	1.0	1005	0.5865
04/08/20	8:45	1.0	1065	0.5865

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**7**

DRAFT

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Lewis Pioneer	Tested By:	A. Lopez	Date:	04/02/20
Project No.:	12604.004	Input By:	A. Santos	Date:	04/16/20
Boring No.:	B-6	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Dark brown silty clayey sand with gravel (SC-SM)g				

Note: Corrected dry density calculation assumes specific gravity of 2.70 and moisture content of 1.0% for oversize particles

Preparation Method:	X	Moist	Scalp Fraction (%)		Rammer Weight (lb.) = 10.0
		Dry	#3/4		Height of Drop (in.) = 18.0
Compaction Method	X	Mechanical Ram	#3/8		
		Manual Ram	#4	16.5	Mold Volume (ft³) 0.0333

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3891	3966	3922			
Weight of Mold (g)	1868	1868	1868			
Net Weight of Soil (g)	2023	2098	2054			
Wet Weight of Soil + Cont. (g)	448.3	478.1	558.9			
Dry Weight of Soil + Cont. (g)	406.8	424.8	486.0			
Weight of Container (g)	40.1	39.0	39.4			
Moisture Content (%)	11.32	13.82	16.32			
Wet Density (pcf)	133.9	138.9	136.0			
Dry Density (pcf)	120.3	122.0	116.9			

Maximum Dry Density (pcf)	**122.4**	**Optimum Moisture Content (%)**	**13.2**
Corrected Dry Density (pcf)	**128.2**	**Corrected Moisture Content (%)**	**11.2**

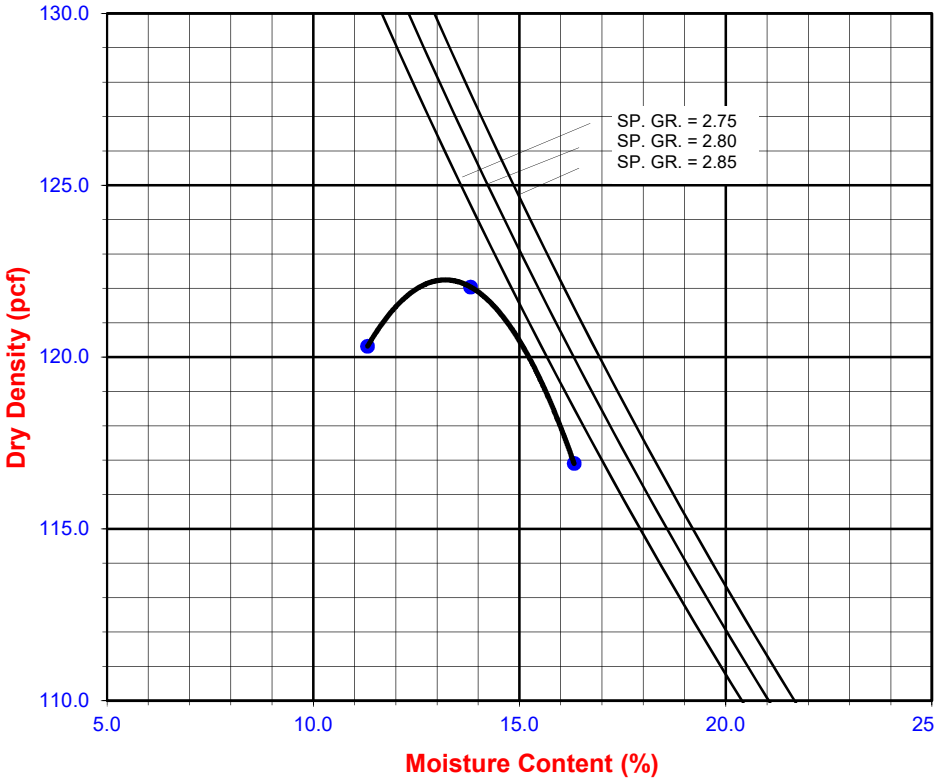
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



DRAFT

Boring No.	B-2	B-3	B-4	B-5	B-6			
Sample No.	R-3	R-3	R-2	R-4	B-1			
Depth (ft.)	10.0	10.0	5.0	15.0	0-5.0			
Sample Type	Ring	Ring	Ring	Ring	Bulk			
Soil Identification	Brown silty sand (SM)	Brown sandy silt s(ML)	Brown silty sand (SM)	Dark brown silty sand (SM)	Dark brown silty clayey sand with gravel (SC-SM)g			
Moisture Correction								
Wet Weight of Soil + Container (g)	0.00	0.00	0.00	0.00	0.00			
Dry Weight of Soil + Container (g)	0.00	0.00	0.00	0.00	0.00			
Weight of Container (g)	1.00	1.00	1.00	1.00	1.00			
Moisture Content (%)	0.00	0.00	0.00	0.00	0.00			
Sample Dry Weight Determination								
Weight of Sample + Container (g)	903.60	876.20	865.90	497.36	846.87			
Weight of Container (g)	219.40	248.10	236.70	77.31	217.48			
Weight of Dry Sample (g)	684.20	628.10	629.20	420.05	629.39			
Container No.:	610	191	790	936	604			
After Wash								
Method (A or B)	A	A	A	A	A			
Dry Weight of Sample + Cont. (g)	572.70	527.70	632.00	323.72	588.06			
Weight of Container (g)	219.40	248.10	236.70	77.31	217.48			
Dry Weight of Sample (g)	353.30	279.60	395.30	246.41	370.58			
% Passing No. 200 Sieve	**48.4**	**55.5**	**37.2**	**41.3**	**41.1**			
% Retained No. 200 Sieve	51.6	44.5	62.8	58.7	58.9			

Leighton

PERCENT PASSING
No. 200 SIEVE
ASTM D 1140

Project Name: Lewis Pioneer
Project No.: 12604.004
Client Name:
Tested By: S. Felter Date: 04/07/20

DRAFT

ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

Leighton

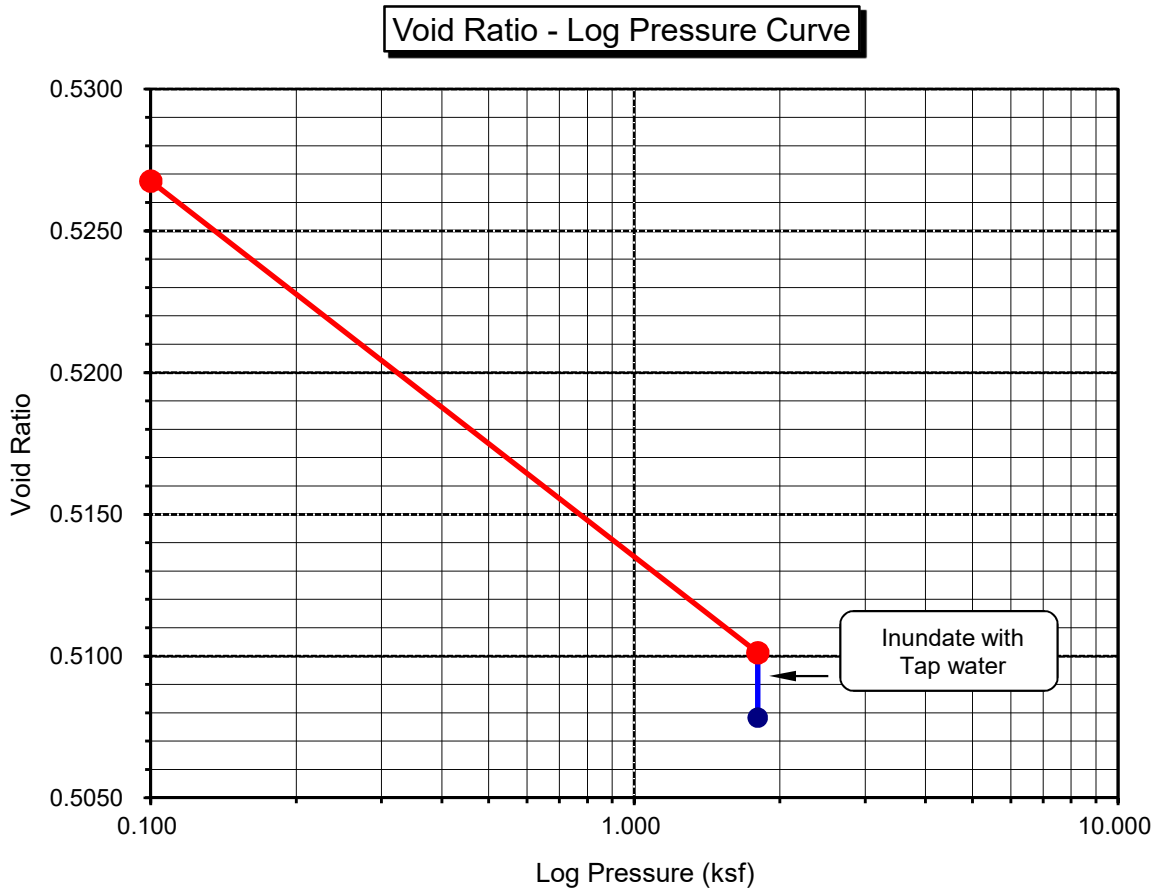
Project Name:	Lewis Pioneer		Tested By:	O. Figueroa	Date: 04/13/20
Project No.:	12064.004		Checked By:	A. Santos	Date: 04/17/20
Boring No.:	B-5		Sample Type:	Ring	
Sample No.:	R-4		Depth (ft.)	15.0	
Sample Description:	Dark brown silty sand (SM)				

Initial Dry Density (pcf):	110.4
Initial Moisture (%):	10.88
Initial Length (in.):	1.0000
Initial Dial Reading:	0.2862
Diameter(in):	2.415

Final Dry Density (pcf):	111.8
Final Moisture (%) :	17.3
Initial Void Ratio:	0.5268
Specific Gravity(assumed):	2.70
Initial Saturation (%)	55.7

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.2862	1.0000	0.00	0.00	0.5268	0.00
1.800	0.2734	0.9872	0.19	-1.28	0.5101	-1.09
H2O	0.2719	0.9857	0.19	-1.43	0.5078	-1.24

Percent Swell (+) / Settlement (-) After Inundation = -0.15



APPENDIX D

SUMMARY OF SEISMIC ANALYSIS

DRAFT

Liquefaction Susceptibility Analysis: SPT Method

Based on Youd and Idriss (2001), Martin and Lew (1999).

Project: Residential Development (Former Pioneer School)

Project No.: 12064.004

Leighton

General Boring Information:

Boring No.	Existing GW Depth (ft)	Design GW Depth (ft)	Design Fill Height (ft)	Ground Surface Elev (ft)
B-1	200	150	0	
B-2	200	150	0	
B-3	200	150	0	
B-4	200	150	0	
B-5	200	150	0	
B-6	200	150	0	

-150
-150
-150
-150
-150
-150
0
0

General Parameters:		
a_{max} =	0.77g	MCE
M_W =	7.7	
MSF eq:	1	(Idriss, 2001)
MSF =	0.93	
Hammer Efficiency =	83	%
C_E =	1.38	
C_B =	1	
$C_{S(SPT)}$ =	1.2	
$C_{S(ring)}$ =	1	
Rod Stickup (feet) =	3	
Ring sample correction =	0.65	

Summary of Liquefaction Susceptibility Analysis: SPT Method

Liquefaction Method: Youd and Idriss (2001). Seismic Settlement Method: Tokimatsu and Seed (1987) and Martin and Lew (1999).

Project: Residential Development (Former Pioneer School)

Project No.: 12064

Leighton

Boring No.	Approx. Layer Depth (ft)	SPT Depth (ft)	Approx Layer Thick-ness (ft)	Plasticity ("n"=non susc. to liq.)	Estimated Fines Cont (%)	γ_t (pcf)	N_m or B (blows/ft)	Sampler Type (enter 2 if mod CA Ring)	Cs	N_m (corrected for Cs and ring->SPT) (blows/ft)	Exist σ_{vo}' (psf)	$(N_1)_{60}$	$(N_1)_{60CS}$	**$CRR_{7.5}$**	Design σ_{vo}' (psf)	$CSR_{7.5}$	CSR_M	**Liquefaction Factor of Safety**	$(N_1)_{60CS}$ (for Settle-ment) (blows/ft)	Dry Sand Strain (%) (Tok/ Seed 87) (%)	Sat Sand Strain (%) (Tok/ Seed 87) (%)	Seismic Sett. of Layer (in.)	**Cummulative Seismic Settlement** (in.)
B-1	0 to 4	3	4		20	120	23	2	1	15.0	360	26.4	32.1	>Range	360	0.50	0.53	**NonLiq**	32.1	0.09		0.04	0.2
B-1	4 to 8	5	4		20	120	40	2	1	26.0	600	45.9	53.1	>Range	600	0.50	0.53	**NonLiq**	53.1	0.04		0.02	0.1
B-1	8 to 13	10	5		20	120	63	2	1	41.0	1200	63.5	72.2	>Range	1200	0.49	0.52	**NonLiq**	72.2	0.03		0.02	0.1
B-1	13 to 18	15	5		3	120	41	2	1	26.7	1800	33.7	33.7	>Range	1800	0.48	0.52	**NonLiq**	33.7	0.14		0.08	0.1
B-1	18 to 22	20	5		3	120	70	2	1	45.5	2400	55.8	55.8	>Range	2400	0.48	0.51	**NonLiq**	55.8	0.04		0.02	0.0
B-2	0 to 4	3	4		20	120	5	2	1	3.3	360	5.7	9.8	0.111	360	0.50	0.53	**NonLiq**	9.8	3.26		1.57	2.9
B-2	4 to 8	5	4		20	120	11	2	1	7.2	600	12.6	17.2	0.183	600	0.50	0.53	**NonLiq**	17.2	1.35		0.57	1.4
B-2	8 to 13	10	5		20	120	13	2	1	8.5	1200	13.1	17.8	0.189	1200	0.49	0.52	**NonLiq**	17.8	1.17		0.70	0.8
B-2	13 to 18	15	5		3	120	41	2	1	26.7	1800	33.7	33.7	>Range	1800	0.48	0.52	**NonLiq**	33.7	0.14		0.08	0.1
B-2	18 to 22	20	5		3	120	82	2	1	53.3	2400	65.3	65.3	>Range	2400	0.48	0.51	**NonLiq**	65.3	0.04		0.02	0.0
B-3	0 to 4	3	4		20	120	6	2	1	3.9	360	6.9	11.0	0.122	360	0.50	0.53	**NonLiq**	11.0	1.67		0.80	3.0
B-3	4 to 8	5	4		20	120	11	2	1	7.2	600	12.6	17.2	0.183	600	0.50	0.53	**NonLiq**	17.2	1.35		0.57	2.2
B-3	8 to 13	10	5		20	120	11	2	1	7.2	1200	11.1	15.6	0.166	1200	0.49	0.52	**NonLiq**	15.6	1.29		0.77	1.6
B-3	13 to 18	15	5		5	120	78	2	1	50.7	1800	64.2	64.2	>Range	1800	0.48	0.52	**NonLiq**	64.2	0.03		0.02	0.8
B-3	18 to 23	20	5		3	120	100	2	1	65.0	2400	79.7	79.7	>Range	2400	0.48	0.51	**NonLiq**	79.7	0.03		0.02	0.8
B-3	23 to 28	25	5		3	120	100	1	1.2	120.0	3000	131.6	131.6	>Range	3000	0.47	0.51	**NonLiq**	131.6	0.03		0.02	0.8
B-3	28 to 33	30	5		60	120	32	2	1	20.8	3600	21.9	31.3	>Range	3600	0.47	0.50	**NonLiq**	31.3	0.19		0.11	0.8
B-3	33 to 38	35	5		60	120	16	1	1.2	19.2	4200	18.7	27.5	0.352	4200	0.45	0.48	**NonLiq**	27.5	0.43		0.26	0.7
B-3	38 to 43	40	5		30	120	31	2	1	20.2	4800	18.4	25.9	0.311	4800	0.43	0.46	**NonLiq**	25.9	0.50		0.30	0.4
B-3	43 to 48	45	5		20	120	100	1	1.2	120.0	5400	103.2	115.0	>Range	5400	0.41	0.43	**NonLiq**	115.0	0.02		0.01	0.1
B-3	48 to 52	50	5		20	120	57	2	1	37.1	6000	30.2	36.3	>Range	6000	0.38	0.41	**NonLiq**	36.3	0.20		0.11	0.1
B-4	0 to 4	3	4		20	120	6	2	1	3.9	360	6.9	11.0	0.122	360	0.50	0.53	**NonLiq**	11.0	1.67		0.80	3.7
B-4	4 to 8	5	4		20	120	5	2	1	3.3	600	5.7	9.8	0.111	600	0.50	0.53	**NonLiq**	9.8	3.94		1.65	2.9
B-4	8 to 13	10	5		20	120	25	2	1	16.3	1200	25.2	30.8	>Range	1200	0.49	0.52	**NonLiq**	30.8	0.27		0.16	1.3
B-4	13 to 18	15	5		20	120	10	2	1	6.5	1800	8.2	12.5	0.136	1800	0.48	0.52	**NonLiq**	12.5	1.86		1.11	1.1
B-4	18 to 22	20	5		20	120	100	2	1	65.0	2400	79.7	89.6	>Range	2400	0.48	0.51	**NonLiq**	89.6	0.03		0.02	0.0

Leighton

Boring No.	Approx. Layer Depth (ft)	SPT Depth (ft)	Approx Layer Thick-ness (ft)	Plasticity ("n"=non susc. to liq.)	Estimated Fines Cont (%)	γ_t (pcf)	N_m or B (blows/ft)	Sampler Type (enter 2 if mod CA Ring)	Cs	N_m (corrected for Cs and ring->SPT) (blows/ft)	Exist σ_{vo}' (psf)	$(N_1)_{60}$	$(N_1)_{60CS}$	**$CRR_{7.5}$**	Design σ_{vo}' (psf)	$CSR_{7.5}$	CSR_M	**Liquefaction Factor of Safety**	$(N_1)_{60CS}$ (for Settle-ment) (blows/ft)	Dry Sand Strain (%) (Tok/ Seed 87) (%)	Sat Sand Strain (%) (Tok/ Seed 87) (%)	Seismic Sett. of Layer (in.)	**Cummulative Seismic Settlement** (in.)
B-5	0 to 4	3	4		20	120	7	2	1	4.6	360	8.0	12.3	0.134	360	0.50	0.53	**NonLiq**	12.3	1.56		0.75	4.1
B-5	4 to 8	5	4		20	120	17	2	1	11.1	600	19.5	24.7	0.285	600	0.50	0.53	**NonLiq**	24.7	0.67		0.28	3.4
B-5	8 to 13	10	5		20	120	12	2	1	7.8	1200	12.1	16.7	0.177	1200	0.49	0.52	**NonLiq**	16.7	1.22		0.73	3.1
B-5	13 to 18	15	5		20	120	7	2	1	4.6	1800	5.8	9.8	0.112	1800	0.48	0.52	**NonLiq**	9.8	3.72		2.23	2.4
B-5	18 to 22	20	5		20	120	33	2	1	21.5	2400	26.3	32.0	>Range	2400	0.48	0.51	**NonLiq**	32.0	0.26		0.14	0.1
B-6	0 to 4	3	4		20	120	9	2	1	5.9	360	10.3	14.8	0.158	360	0.50	0.53	**NonLiq**	14.8	1.36		0.65	1.8
B-6	4 to 8	5	4		40	120	11	2	1	7.2	600	12.6	20.1	0.217	600	0.50	0.53	**NonLiq**	20.1	0.84		0.35	1.2
B-6	8 to 13	10	5		40	120	51	2	1	33.2	1200	51.4	66.7	>Range	1200	0.49	0.52	**NonLiq**	66.7	0.03		0.02	0.8
B-6	13 to 18	15	5		20	120	36	2	1	23.4	1800	29.6	35.6	>Range	1800	0.48	0.52	**NonLiq**	35.6	0.13		0.08	0.8
B-6	18 to 23	20	5		3	120	51	2	1	33.2	2400	40.6	40.6	>Range	2400	0.48	0.51	**NonLiq**	40.6	0.06		0.04	0.7
B-6	23 to 28	25	5		3	120	75	1	1.2	90.0	3000	98.7	98.7	>Range	3000	0.47	0.51	**NonLiq**	98.7	0.03		0.02	0.7
B-6	28 to 33	30	5		3	120	100	2	1	65.0	3600	68.5	68.5	>Range	3600	0.47	0.50	**NonLiq**	68.5	0.03		0.02	0.7
B-6	33 to 38	35	5		3	120	84	1	1.2	100.8	4200	98.3	98.3	>Range	4200	0.45	0.48	**NonLiq**	98.3	0.03		0.02	0.7
B-6	38 to 43	40	5		60	120	30	2	1	19.5	4800	17.8	26.3	0.321	4800	0.43	0.46	**NonLiq**	26.3	0.49		0.29	0.7
B-6	43 to 48	45	5		20	120	38	1	1.2	45.6	5400	39.2	46.0	>Range	5400	0.41	0.43	**NonLiq**	46.0	0.05		0.03	0.4
B-6	48 to 52	50	5		3	120	44	2	1	28.6	6000	23.3	23.3	0.262	6000	0.38	0.41	**NonLiq**	23.3	0.61		0.33	0.3

DRAFT

OSHPD

Latitude, Longitude: 34.08019, -117.91009

Date	4/16/2020, 2:30:46 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.658	MCE_R ground motion. (for 0.2 second period)
S_1	0.61	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.658	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.105	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.702	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.772	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.658	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.81	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.128	Factored deterministic acceleration value. (0.2 second)
S1RT	0.61	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.673	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.662	Factored deterministic acceleration value. (1.0 second)
PGAd	0.851	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.916	Mapped value of the risk coefficient at short periods
C_{R1}	0.907	Mapped value of the risk coefficient at a period of 1 s

DRAFT

DISCLAIMER

While the information presented on this website is believed to be correct, SEAOC /OSHPD and its sponsors and contributors assume no responsibility or liability for its accuracy. The material presented in this web application should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. SEAOC / OSHPD do not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the seismic data provided by this website. Users of the information from this website assume all liability arising from such use. Use of the output of this website does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the search results of this website.

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the U.S. Seismic Design Maps web tools (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

Input

Edition

Dynamic: Conterminous U.S. 2014 (upd

Spectral Period

Peak Ground Acceleration

Latitude

Decimal degrees

34.08019

Time Horizon

Return period in years

2475

Longitude

Decimal degrees, negative values for western longitudes

-117.91009

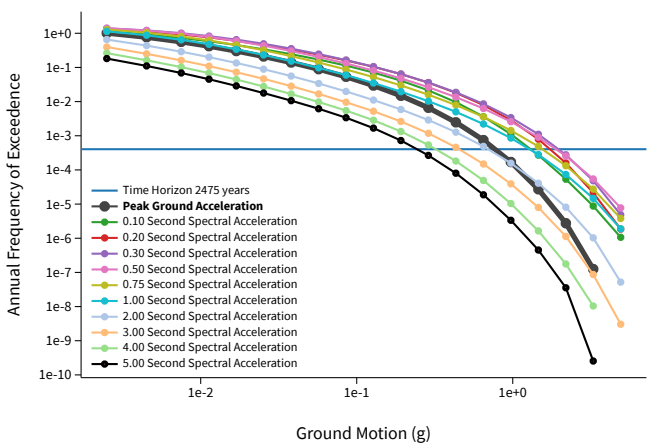
Site Class

259 m/s (Site class D)

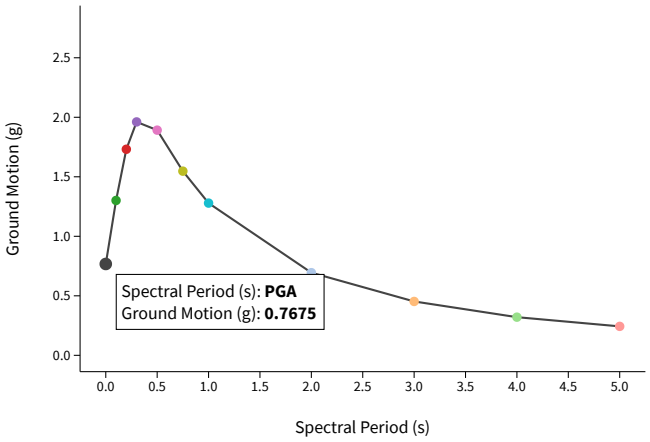
DRAFT

Hazard Curve

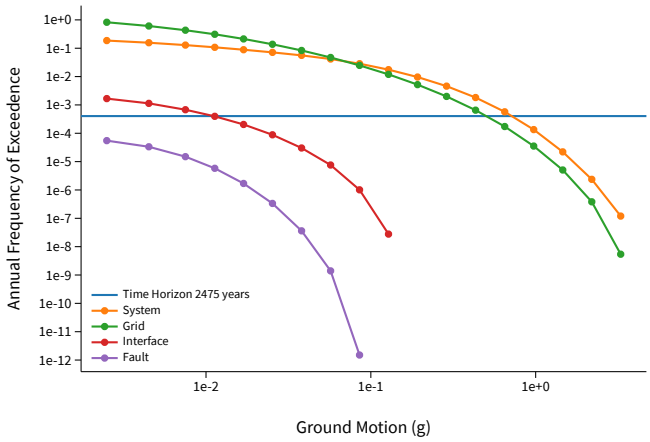
Hazard Curves



Uniform Hazard Response Spectrum



Component Curves for Peak Ground Acceleration

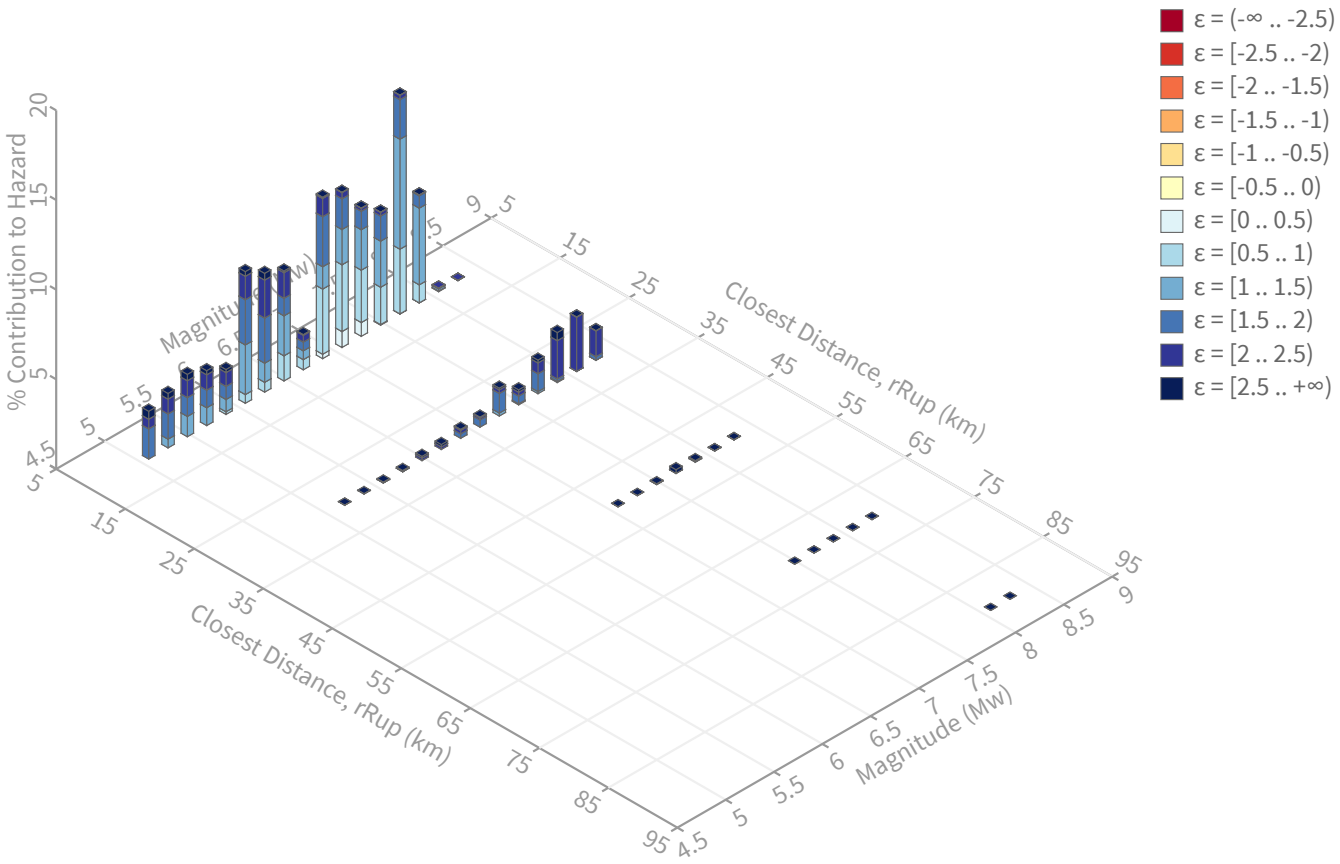


View Raw Data

Deaggregation

Component

Total



DRAFT

Summary statistics for, Deaggregation: Total

Deaggregation targets

Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.76751153 g

Recovered targets

Return period: 2953.4633 yrs
Exceedance rate: 0.00033858555 yr^{-1}

Totals

Binned: 100 %
Residual: 0 %
Trace: 0.11 %

Mean (over all sources)

m: 6.93
r: 13.35 km
ε_0: 1.5 σ

Mode (largest m-r bin)

m: 7.72
r: 11.75 km
ε_0: 1.19 σ
Contribution: 12.2 %

Mode (largest m-r-ε_0 bin)

m: 7.72
r: 11.53 km
ε_0: 1.25 σ
Contribution: 6.13 %

Discretization

r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ

Epsilon keys

ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Deaggregation Contributors

Source Set ↳ Source	Type	r	m	ε_0	lon	lat	az	%
UC33brAvg_FM32	System							39.63
San Jose [2]		5.18	6.96	0.77	117.881°W	34.043°N	147.08	6.19
Sierra Madre [2]		8.73	7.67	1.17	117.903°W	34.157°N	4.23	6.16
Puente Hills (Coyote Hills) [0]		11.92	7.26	0.90	117.868°W	33.919°N	167.79	5.42
Whittier alt 2 [5]		13.48	7.27	1.52	117.963°W	33.966°N	200.99	3.78
San Andreas (Mojave S) [12]		38.50	8.05	2.27	117.720°W	34.389°N	26.88	3.73
Richfield [1]		13.64	6.17	1.51	117.870°W	33.882°N	170.48	3.06
Raymond [0]		12.16	7.13	1.66	117.991°W	34.166°N	322.01	2.53
Puente Hills (LA) [0]		17.66	7.17	1.70	118.116°W	33.990°N	242.34	1.39
Chino alt 2 [0]		15.56	6.84	2.01	117.751°W	34.030°N	110.83	1.27
Compton [0]		22.52	7.37	1.72	118.112°W	33.746°N	206.67	1.21
UC33brAvg_FM31	System							38.46
San Jose [2]		5.18	6.96	0.77	117.881°W	34.043°N	147.08	6.29
Sierra Madre [2]		8.73	7.66	1.17	117.903°W	34.157°N	4.23	6.17
Puente Hills [0]		11.96	7.43	0.86	117.914°W	33.943°N	181.34	5.25
San Andreas (Mojave S) [12]		38.50	8.05	2.27	117.720°W	34.389°N	26.88	3.72
Whittier alt 1 [6]		13.12	6.85	1.69	117.961°W	33.966°N	200.22	3.64
Raymond [0]		12.16	7.12	1.67	117.991°W	34.166°N	322.01	2.33
Chino alt 1 [0]		14.96	6.47	2.15	117.752°W	34.028°N	111.82	1.58
Puente Hills [1]		11.97	7.09	0.87	117.957°W	33.944°N	195.78	1.09
Compton [0]		22.52	7.27	1.77	118.112°W	33.746°N	206.67	1.04
UC33brAvg_FM31 (opt)	Grid							10.98
PointSourceFinite: -117.910, 34.103		5.63	5.67	1.40	117.910°W	34.103°N	0.00	2.83
PointSourceFinite: -117.910, 34.103		5.63	5.67	1.40	117.910°W	34.103°N	0.00	2.83
PointSourceFinite: -117.910, 34.157		9.45	5.74	1.94	117.910°W	34.157°N	0.00	1.39
PointSourceFinite: -117.910, 34.157		9.45	5.74	1.94	117.910°W	34.157°N	0.00	1.39
UC33brAvg_FM32 (opt)	Grid							10.93
PointSourceFinite: -117.910, 34.103		5.64	5.67	1.40	117.910°W	34.103°N	0.00	2.76
PointSourceFinite: -117.910, 34.103		5.64	5.67	1.40	117.910°W	34.103°N	0.00	2.76
PointSourceFinite: -117.910, 34.157		9.36	5.78	1.92	117.910°W	34.157°N	0.00	1.38
PointSourceFinite: -117.910, 34.157		9.36	5.78	1.92	117.910°W	34.157°N	0.00	1.38

DRAFT

APPENDIX E

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

LEIGHTON AND ASSOCIATES, INC.

GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR ROUGH GRADING

Table of Contents

1.0 General

1.1 Intent: These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record: Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor: The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The

Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing: Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing: Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation: In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching: Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas: All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General: Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize: Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import: If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers: Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning: Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557-91).

4.3 Compaction of Fill: After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557-91). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes: In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557-91.

4.5 Compaction Testing: Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing: Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations: The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 Safety: The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill: All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.3 Lift Thickness: Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

7.4 Observation and Testing: The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

Appendix E1

Phase I and Limited Phase II Environmental Site Assessment

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
FORMER PIONEER ELEMENTARY SCHOOL
1651 EAST ROWLAND AVENUE
WEST COVINA, CALIFORNIA

Prepared For:

LEWIS LAND DEVELOPERS, LLC
1156 North Mountain Avenue
Upland, California 91786

Project No. 12064.003

July 13, 2020

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

July 13, 2020

Project No. 12064.003

Lewis Land Developers, LLC.
1156 North Mountain Avenue
Upland, California 91786

Attention: Mr. Adam Collier

Subject: Phase I and Limited Phase II Environmental Site Assessment
Former Pioneer Elementary School
1651 East Rowland Avenue
West Covina, California

Leighton and Associates, Inc. (Leighton) is pleased to present this Phase I and limited Phase II Environmental Site Assessment Report for the former Pioneer Elementary School, located at 1651 East Rowland Avenue, West Covina, California (subject 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 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 subject 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 to Lewis Land Developers, LLC.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Zachary Freeman, P.G.
Project Geologist

Distribution: (1) addressee via email

TABLE OF CONTENTS

Leighton

List of Accompanying Illustrations and Appendices

1.0 INTRODUCTION

1.1 Authorization

Leighton and Associates, Inc. (Leighton) performed a Phase I and limited Phase II Environmental Site assessment (ESA) for the former Pioneer Elementary School, located at 1651 East Rowland Avenue, West Covina, California (subject site – Figure 1) in accordance with Lewis Land Developers LLC's (Lewis) authorization.

1.2 Purpose

The purpose of the Phase I and limited Phase II 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 subject 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."*

- 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.*" (ASTM E1527-13, 2013).

1.3 Scope of Work

The scope of work was performed in accordance with Leighton's proposal dated July 11, 2018, and included the following tasks:

- A reconnaissance-level visit of the subject site for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for onsite releases of hazardous materials and petroleum products;
- Records review (including review of previous environmental reports, selected governmental databases, and historical review);
- Interviews;
- A limited Phase II soil sampling investigation, 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 subject site so that the Client may qualify for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) landowner liability protections as defined in CERCLA, 42 USC §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 in conformance with the scope and limitations of ASTM Practice E1527-13 of the subject site. 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.

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 subject 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 and Limited Phase II ESA did not include non-scope considerations, such as, but not limited to, those listed in Section 13 of ASTM E1527-13. The scope of work for this Phase I and limited Phase II ESA did not include non-scope items such as testing of electrical equipment for the presence of polychlorinated biphenyls (PCBs) or collection of other environmental samples, such as air, water, building materials, paint or other media; assessment of natural hazards such as naturally occurring asbestos, 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 (such as vapor intrusion assessment); 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 and limited Phase II ESA also did not include an extensive assessment of the environmental compliance status of the subject site or of businesses operating at the subject site, or a health-based risk assessment.

1.7 User Reliance

This report is for the exclusive use of Lewis and their lender. Use of this report by any other party shall be at such party's sole risk.

1.8 Important Information about Geoenvironmental Reports

Lewis 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 Location and Legal Description

The subject site is located at 1651 East Rowland Avenue, West Covina, California 91791 (Figure 1 – Site Location Map). The Los Angeles Assessor's Parcel Numbers (APNs) assigned to the subject site are 8442-018-900 and 8442-021-900. The subject site is approximately 8.77 in size, currently developed as an elementary school. The surrounding vicinity is developed primarily as single- family residences and commercial properties.

2.2 Property and Vicinity General Characteristics

The subject site vicinity and the surrounding area consist of existing residential properties.

2.3 Current Use of the Subject Site

The subject site consists of an approximately 8.77-acre elementary school (Photos 1 through 25, Appendix B).

2.4 Descriptions of Structures, Roads and Other Improvements on the Property

The subject site consists of nine main classroom/administration buildings, three storage sheds, paved play areas and associated parking lots. The following utilities are expected to provide future service to the subject site:

Natural Gas:	Southern California Gas Company
Source of Potable Water:	City of West Covina
Electric:	Southern California Edison (SCE)
Sewage Disposal:	City of West Covina
Solid Waste Disposal:	Athens Services

2.5 Current Uses of Adjoining Properties

The subject site is bordered by single family homes to the west and the western portion of the northern adjacent property. East Rowland Avenue borders the subject site to the south followed by single family homes and commercial businesses. The subject site is bordered by commercial businesses to the east and the eastern area of the northern adjacent property.

3.0 USER PROVIDED INFORMATION

The user of this Phase I ESA is identified as Lewis. As a part of the ASTM E1527-13 process, User Questionnaire was completed by Mr. Kyle Weichert. A copy of the completed User Questionnaire is included in Appendix C.

3.1 Environmental Liens or Activity and Use Limitations

Mr. Weichert indicated that he was not aware of environmental liens or activity and use limitations (AULs) filed or recorded for the subject site. In addition, review of the ERIS Environmental Lien and AUL Search revealed no environmental liens or AULs. A copy of the ERIS Environmental Lien and AUL Search is provided in Appendix D.

3.2 Specialized Knowledge

Mr. Weichert indicated that he has no specialized knowledge or experience with the subject site.

3.3 Commonly Known or Reasonably Ascertainable Information

Mr. Weichert indicated that the subject site was previously used as a school. Mr. Weichert was not aware of any specific chemicals that were once present on the subject site, and are not aware any environmental cleanups that may have occurred on the subject site.

3.4 Valuation Reduction for Environmental Issues

Mr. Weichert indicated that the purchase price being paid for the subject site is based on fair market value.

3.5 Owner, Property Manager, and Occupant Information

According to Environmental Lien and AUL Search Report, the subject site is owned by Covina Valley Unified School District. The subject site is currently unoccupied.

3.6 Reason for Performing Phase I ESA

According to Mr. Weichert, the reason for requesting this Phase I ESA is for due diligence purposes related to the purchase of the subject site.

3.7 Other

No other items of environmental significance were provided by Lewis.

4.0 RECORDS REVIEW

4.1 Physical Setting Source(s)

Leighton reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the subject site. A summary of this information is presented in the following subsections.

4.1.1 Topography

The subject site is located in Section 15 of Township 1 South, Range 10 West of the San Bernardino Baseline and Meridian. Topographic map coverage of the subject site vicinity is provided by the United States Geological Survey (USGS) "Baldwin Park, California" Quadrangle (2012). The elevation of the subject site is approximately 470 feet above mean sea level. The subject site is relatively flat and slopes gently to the southwest.

4.1.2 Surface Water

Surface water was not observed on the subject site.

4.1.3 Geology and Soils

The subject site is located in the northeastern portion of the Los Angeles Basin within the Peninsular Ranges geomorphic province of California. The Peninsular Ranges are characterized by elongate structural blocks bounded by northwest to west-northwest trending fault zones. Several of these faults terminate at or merge with the east-west trending thrust faults at the southern edge of the Traverse Ranges geomorphic province to the north of the subject site. Several faults that have been mapped in the region are active or potentially active and are believed to accommodate stresses associated with the interaction between the two geomorphic provinces. The subject site has been mapped as being underlain by alluvial soil consisting of unconsolidated gravel, sand, and silt (Dibblee, 1999).

4.1.4 Hydrogeology

The subject site is located within the San Gabriel Valley Groundwater Basin. The San Gabriel Valley Groundwater Basin is bounded to the north by the Raymond Fault. Rocks of the Repetto, Merced, and Puente Hills formations bound the basin to the south and west. The Chino fault and San Jose fault form the eastern boundary of the basin (DWR, 2004). The major hydrostratagraphic unit in the basin is Quaternary alluvium primarily consisting of boulder-bearing gravel to sand and silt. Water chemistry is dominated by calcium bicarbonate and total dissolved solids average 367 milligrams per liter (mg/L) and range between 200 and 1,500 mg/L within the basin. According to the California Department of Water Resources, the groundwater depth near the subject site is approximately 190 feet below ground surface (Well 340712N1179435W001) and flows to the southwest (DWR, 2018).

4.1.5 Oil and Gas Fields

Leighton reviewed the California Geological Energy Management Division (CalGEM), Online Mapping System, on June 29, 2020. No evidence of oil wells or oil fields was identified on the subject site or adjacent properties. Leighton reviewed the United States Pipeline and Hazardous Materials Safety Administration's Pipeline Information Management Mapping Application (PIMMA), on July 2, 2020. No evidence of hazardous materials pipelines was identified on the subject site or adjacent properties.

4.2 Standard Environmental Record Sources

A search of selected government databases was conducted by Leighton using an environmental database report system. Details and descriptions of the database search are provided in the EDR report. 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. A copy of this report is included in Appendix E.

4.2.1 Subject Site

The subject site was identified in the database report on the Hazardous Waste Manifest Database (HAZNET). The database contains a list of

hazardous waste manifests received each year by the Department of Toxic Substances Control. No violations or enforcements are listed for the subject site.

4.2.2 Offsite

NOTABLE LISTINGS	
Listing Name	**Address / Location**
	615 N. Azusa Avenue
This facility is located approximately 370 feet northeast of the subject site, and is listed in the Clandestine Drug Laboratories (CDL) database. **The listing does not include a release of hazardous substances or petroleum products judged likely to have created a REC on the subject site**.	
One Dollar Cleaners	**610 N. Azusa Avenue**
This listed facility is located approximately 420 feet east-northeast of the subject site. It is listed in the DRYCLEANERS databases. **The listing does not include a release of hazardous substances or petroleum products judged likely to have created a REC on the subject site**.	
West Covina Gas up	**711 Azusa Avenue N**
This listed facility is located approximately 800 feet north-northeast of the subject site. It is listed in the Leaking Underground Storage Tank (LUST), Historical Underground Storage Tank (HIST Tank) Hazardous Waste Substances Site Cleanup (HWSS CLEANUP), and the Los Angeles County Hazardous Materials System (LA HMS) databases. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a waste oil release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board on October 9, 1990. Based on the case closed status of the facility, it is unlikely to have created a REC on the subject site**.	
All American Rent-A-Car	**702 Azusa Avenue N**
This listed facility is located approximately 800 feet north-northeast of the subject site. It is listed in the Leaking Underground Storage Tank (LUST), Historical Underground Storage Tank (HIST Tank) Hazardous Waste Substances Site Cleanup (HWSS CLEANUP), and the Los Angeles County Hazardous Materials System (LA HMS) databases. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a waste oil release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board on October 9, 1990. Based on the case closed status of the facility, it is unlikely to have created a REC on the subject site**.	
ARCO #1276	**300 North Azusa Avenue**
This listed facility is located approximately 1,370 feet south-southeast of the subject site. It is listed in the LUST and Delisted Underground Storage Tank (DELISTED TNK) databases. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a gasoline release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board**	

on February 13, 1992. Based on the case closed status of the facility, it is unlikely to have created a REC on the subject site.	
Unocal #4550	**245 Azusa Avenue North**
This listed facility is located approximately 1,740 feet south-southeast of the subject site. It is listed in the LUST and Delisted Underground Storage Tank (DELISTED TNK) databases. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a diesel release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board on March 13, 1996. Based on the case closed status of the facility, it is unlikely to have created a REC on the subject site**.	
La Puente Dump	**147 North Azusa Avenue**
This listed facility is located approximately 2,060 feet south-southeast of and down gradient from the subject site. It is listed in the DTSC ENVIROSTOR database. **According to the DTSC ENVIROSTOR online database the site was identified as a historical landfill in 1983. A groundwater investigation in 1988 identified trichloroethylene at concentrations of 9.0 and 11.0 parts per billion in two wells. The site was referred to the DTSC for further investigation in 1991. Based on the downgradient position of the facility relative to the subject site and the depth to groundwater in the vicinity of the subject site (>200 feet bgs), it is unlikely to have created a REC on the subject site**.	
Mobil #11-MHY	**107 Azusa Avenue North**
This listed facility is located approximately 2,105 feet north northwest of the subject site. It is listed in the LUST database. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a gasoline release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board on August 13, 1996. Based on the case closed status and the lack of groundwater impacts at the facility, it is unlikely to have created a REC on the subject site**.	
Hughes Training, Inc.	**1200 E. San Bernardino Road, West Covina**
This listed facility is located approximately 2,935 feet north northwest of the subject site. It is listed in the RCRA and CORRACTS databases. **According to the DTSC ENVIROSTOR online database the facility previously manufactured electronic components. Hazardous wastes were stored onsite and transported offsite for disposal. Compliance evaluations found that a site investigation was not required. Based on the compliance history of facility, it is unlikely to have created a REC on the subject site.**.	
Couch Family Trust Residence	**220 Houser Drive South, Covina**
This listed facility is located approximately 2,590 feet northeast of the subject site. It is listed in the LUST database. **According to the State Water Resources Control Board Geotracker online database the facility was the site of a gasoline release that did not impact groundwater. The facility was cleaned up and the site closed by the Los Angeles Regional Water Quality Control Board on February 27, 2014. Based on the case closed status and the lack of groundwater impacts at the facility, it is unlikely to have created a REC on the subject site**.	

4.2.3 Vapor Encroachment

Leighton reviewed the Database Report by ERIS, records available on Geotracker and Envirostor, groundwater information, and regional geology, to evaluate the concern for potential vapor encroachment from on-site activities and from adjacent properties. According to the Tier 1 requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E2600-15), no offsite database listings or facilities were located within 1/3rd of a mile from the boundaries of the subject site. Based on the review of available documentation, geologic and hydrologic information available for the subject site, vapor encroachment is not a REC for the subject site.

4.2.4 Regulatory Agency Contacts

Leighton requested regulatory records from the agencies listed below for the address associated with the subject site.

Department of Toxic Substances Control (DTSC)

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 subject site.

Leighton searched the DTSC's Envirostor online database. No active or closed cases were identified for the subject site or adjacent properties.

Los Angeles Regional Water Quality Control Board (LARWQCB)

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 subject site.

Leighton searched the State Water Resources Control Board Geotracker online database. No active or closed cases were identified for the subject site or adjacent properties.

South Coast Air Quality Management District (SCAQMD)

Leighton searched for records on South Coast AQMD's FINDS website. No records were found pertaining to the subject site.

Los Angeles County Department of Public Works (LACDPW)

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 subject site.

City of West Covina Department of Building and Safety

A records request was submitted to the City of West Covina Department of Building and Safety on June 24, 2020. Leighton received an email from a representative from the city of West Covina explaining that no records were found for the subject site.

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 2016, 16 tests were completed in the subject site's zip code and one test (or 6.3%) 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.

4.2.5 Other Reports

No other reports were provided for Leighton's review.

4.3 Historical Use Information on the Subject Site

Leighton reviewed selected historical information on the subject site. These references were reviewed for evidence of activities, which would suggest the presence of hazardous substances at the subject site and to evaluate the potential for the subject site to be impacted by offsite sources of contamination. The following paragraphs are a chronological summary of the review.

4.3.1 Aerial Photographs

Historical aerial photographs were reviewed for information regarding past subject site uses. Aerial photographs dated 1928, 1934, 1938, 1948, 1952, 1960, 1964, 1972, 1985, 1987, 1995, 2005, 2010, 2012, 2014, and 2016 were reviewed. References are provided in Appendix A and copies of the aerial photographs are included in Appendix F.

In the **1928 to 1952** aerial photographs the subject site and adjacent properties appear to be orchards. A road is visible adjacent to the south of the subject site. South of the road the adjacent properties are orchards. Scattered residential and farm buildings are visible surrounding the subject site.

In the **1960 to 1980** the subject site is occupied by Pioneer Elementary School. The northwestern, western, and southwestern adjacent properties appear to be occupied by single family homes. The northeastern and eastern adjacent properties appear to be in various states of commercial development between 1960 and 1964; by 1972 the properties appear in their present configuration. The southeastern adjacent property appears to consist of an orchard and one residential building and one out building between 1960 and 1964. By the 1972 aerial photograph the parcel is primarily vacant with a small orchard remaining near East Rowland Avenue.

In the **1987 to 2016** aerial photographs, the subject site and adjacent properties appear in their current configuration. Single family homes are visible on the northwestern, western, and southwestern adjacent properties. Commercial properties are observed on the northeastern, eastern, and southeastern adjacent properties.

4.3.2 Historical Topographic Maps

Historical topographic maps were reviewed to obtain information regarding past site uses. Topographic map coverage of the subject site vicinity is provided by Pomona Quadrangle (1894, 1897, 1898, and 1904), Puente (1927), and Baldwin Park (1953, 1966, 1972, 1981, and 2015). A copy of the topographic map report is included in Appendix F.

1894 to 1904: The subject site boundary is miss-plotted on the topographic maps. The subject site location is depicted as vacant. A paved road is depicted bordering the subject site locations to the south. Small residential structures are depicted on the properties surrounding the subject site.

1927: Structures, tanks, or wells are not depicted on the subject site. Sparse residential development is depicted on the surrounding adjacent properties. Rowland Avenue is depicted adjacent to the south of the subject site.

1953: The subject site and surrounding properties are depicted as agricultural. Sparse residential development is also depicted on the surrounding properties.

1966, 1972, 1981: The subject site is depicted as occupied by Pioneer School. A large commercial structure is depicted to the north of the subject site. Two small, possibly residential structures, are depicted east of the subject site in the 1966 and 1972 topographic maps. By 1981, the small structures appear to have been removed and replaced by larger commercial structures.

2015: Only landmark structures are depicted on the topographic map. Rowland Avenue is depicted adjacent to the south of the subject site and California State Route 39 is depicted east of subject site.

4.3.3 Fire Insurance Maps

Fire insurance maps, or Sanborn® maps, are detailed city plans showing building footprints, construction details, use of structure, street address, etc. The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property. Sanborn® Maps were produced from approximately 1867 to the present

for commercial, industrial, and residential sections of approximately 12,000 cities and towns in the United States.

Sanborn map coverage is not available for the subject site. A copy of this report has been provided in Appendix F.

4.3.4 Historical City Directories

City Directories have been published for cities and towns across the US since the 1700s. Originally, a list of residents, the City Directory developed into a tool for locating individuals and businesses in particular. For each street address listed, the directory recorded the name of the resident or business that operated from this addresses. While City Directory coverage is usually comprehensive for major cities, it may be sporadic for rural areas and small towns. The purpose of the City Directory research was to attempt to determine the businesses that were historically located at the subject site and adjacent addresses.

The address associated with the subject site, 1651 E. Rowland Avenue, first appears in 1979, 1986, and 1990/1991 listed as Tri-Community Adult School.

The surrounding offsite addresses were residential in nature, until the late 1980's when the commercial business in the area were established.

4.3.5 Building Permits

Leighton requested a search of historical building permits with the City of West Covina, no permits were found for the subject site address.

4.3.6 Other Historical Sources

Additional resources were not researched as a part of this assessment.

4.3.7 Summary of Historical Land Use

Based on historical records, land usage is summarized as follows:

Time Period	Land Usage	Reference
Prior to 1894	Unknown	None Available
Approximately 1894 to approximately 1927	Vacant	Topographic Maps
Approximately 1927 to approximately 1960	Agricultural	Aerial Photographs Topographic Maps
Approximately 1960 to present	Pioneer School	Aerial Photographs Topographic Maps Site Reconnaissance

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On April 6, and June 25, 2020, a representative of Leighton conducted a reconnaissance–level assessment of the subject site. The subject site reconnaissance consisted of observing and documenting existing conditions of the subject site and nature of the neighboring development within 0.25-miles of the subject site. Photographs of the subject site are presented in Appendix B and their view directions are noted on Figure 2. Items noted during the subject site reconnaissance are also depicted on Figure 2.

5.2 General Property Setting

The subject site consists of an approximately 8.77-acre adult school site consisting of five permanent classroom buildings, a cafeteria, an administration building, two temporary classroom structures, a playground, an athletic field, and two parking lots (Photos 1 through 25, Appendix B).

5.3 Exterior and Interior Observations

5.3.1 Hazardous Substances, Drums, and Other Chemical Containers

Hazardous substances, drums, or other chemical containers were not observed on the subject site. A binder containing safety data sheets (SDSs)for the chemicals that were used at the subject site was found during the site reconnaissance. No hazardous materials were identified during the review of the SDS forms.

5.3.2 Storage Tanks

Evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) (such as vent lines, fill or overfill ports) was not observed on the subject site.

5.3.3 Polychlorinated Biphenyls (PCBs)

PCBs were once used as industrial chemicals whose high stability contributed to both their commercial usefulness and their long-term deleterious environmental and health effects. PCBs can be present in coolants or lubricating oils used in older electrical transformers, hydraulic

systems, and other similar equipment. In 1979, the USEPA generally prohibited the domestic manufacture of PCBs in electrical capacitors, electrical transformers, vacuum pumps, hydraulic pumps, and gas turbines.

Transformers were not observed on the subject site although large circuit breaker boxes were observed in an electrical closet on the subject site (Photo 3, Appendix B). No staining related to the circuit breaker box was observed in the electrical closet.

5.3.4 Waste Disposal

The subject site is not currently occupied; therefore, no onsite waste produced.

5.3.5 Dumping

No evidence of significant dumping of chemicals, hazardous substances or petroleum products was observed at the subject site.

Miscellaneous trash consisting of abandoned school and office supplies and equipment was observed in the classroom buildings, the administration building, and the cafeteria. Minor amounts of trash were observed on the exterior of the subject site. This debris is not considered a REC associated with the subject site.

5.3.6 Pits, Ponds, Lagoons, Septic Systems, Wastewater, Drains, Cisterns, and Sumps

Evidence of pits, ponds, lagoons, septic systems, wastewater, drains, sumps, and cisterns was not observed on the subject site.

5.3.7 Pesticide Use

Pesticides and/or pesticide use was not observed on the subject site.

5.3.8 Staining, Discolored Soils, Corrosion

Stained or discolored soils were not observed on the subject site

5.3.9 Stressed Vegetation

Stressed vegetation was not observed on the subject site.

5.3.10 Unusual Odors

Unusual odors were not detected on the subject site.

5.3.11 Onsite Wells

Wells were not observed on the subject site.

5.3.12 Other Observations

A large steel vault and associated ventilation stand pipe are located on the west side of the subject site (Photo 10, Appendix B). According to Jessie Hernandez, custodial supervisor for the Covina Valley Unified School District, the vault houses the gas meter for the school.

6.0 INTERVIEWS

Leighton attempted to conduct interviews with persons having knowledge of current or past subject site usage. Interviews were conducted either orally or in the form of a written questionnaire.

6.1 Interview with Owner

On July 2, 2020, Mr. Michael Straiger, Maintenance, Operations, and Facilities Manager for Covina Valley Unified School District, completed the Owner Interview form for the subject site. Mr. Straiger stated on the questionnaire that there were hazardous materials and waste at the subject site in the form of asbestos containing building materials and PCB-containing fluorescent lighting ballasts. Mr. Straiger also stated that the CVUSD requested that Southern California Edison remove the main electrical transformer from the subject site over concerns that it would be vandalized for its copper content.

6.2 Interview with Property Manager

See Section 6.1.

6.3 Interviews with Occupants

The subject site is unoccupied; therefore, no occupant interviews were conducted as part of this Phase I ESA.

6.4 Interviews with Local Government Officials

Leighton did not interview employees with local government agencies to request information regarding historic and current uses of the subject site with the exception of those noted in Section 4.3.1.

6.5 Interviews with Others

Leighton did not conduct additional interviews for this Phase I ESA.

7.0 LIMITED PHASE II ESA

On June 25, 2018, Leighton completed a Limited Phase II ESA of the subject site to assess the presence of contaminants in soil associated with arsenic from the past use of arsenical pesticides, lead from lead-based paint, and organochlorine pesticides related to the potential past use of agricultural pesticides and termiticides that may have been applied concurrent with or subsequent to the construction of Pioneer Elementary School.

The scope of work for the Limited Phase II ESA is described below.

7.1 Pre-field Activities

Health and Safety Plan

Leighton prepared a site-specific Health and Safety Plan (HSP) for the field work to be performed. The HSP documented the safety aspects of the work and complied with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.120. The HSP was onsite with Leighton personnel at all times. The HSP outlined all site procedures, potential hazards, and contained a hospital location map. All onsite Leighton personnel acknowledged acceptance of the plan by signing the HSP.

Utility Clearance

Leighton notified Underground Service Alert (USA) a minimum of 48 hours prior to starting subsurface intrusive work.

7.2 Field Activities

Leighton advanced eight soil borings, PI1 through PI8 (Figure 2), to depths of approximately 2.0 feet bgs or practical refusal. Soil samples were collected at depths of 0.5 and 2.0 feet bgs or (practical refusal) from each boring. Borings PI1 through PI4 were placed on the subject site in locations away from the school structures (Figure 2). The samples collected from these locations were analyzed for arsenic and organochlorine pesticides (OCPs) related to the former agricultural use of the subject site. Borings PI5 and PI8 were placed adjacent to the school structures (Figure 2). The samples collected from these locations were analyzed for lead and OCPs related to the potential use of lead-based paint

and OCP termiticides on the Pioneer Elementary School structures. All soil samples were collected using a decontaminated hand auger. Samples were transferred from the tip of the hand auger to laboratory supplied 4-ounce glass jars with Teflon-lined caps. The samples were clearly marked with sample identification, placed in an ice-cooled chest for temporary storage, and transported to EnviroChem Laboratories, Inc. in Pomona, California for analysis. Chain-of-custody protocol was followed throughout all phases of the sample handling process.

7.3 Laboratory Analysis

Surficial soil samples were analyzed for arsenic and lead by EPA Method 6010B and OCPs by EPA Method 8081A. The soil samples collected at a depth of 2.0 feet bgs were placed on hold at the receiving laboratory pending results of the shallow soil sample analyses.

7.4 Results

The soil analytical results were compared to one or more of the following regulatory screening criteria:

- The EPA Residential Regional Screening Levels (RSLs, May 2020) and DTSC Office of Human and Ecological Risk (HERO) Note Number 3 (DTSC-SLs, April 2019); and
- The DTSC-recognized regional background arsenic concentration for southern California Soils (DTSC, 2008)

The complete laboratory report is included in Appendix G. A summary of laboratory results is presented in Tables 1 and 2.

7.4.1 Arsenic

Arsenic was detected in samples PI1-0.5 through PI4-0.5 at concentrations ranging from 3.76 mg/kg (PI4-0.5) to 6.29 mg/kg (PI3-0.5). These concentrations exceed the US EPA RSL and DTSC-SL for residential land use. However, the detected concentrations of arsenic are below the DTSC-recognized southern California regional background arsenic concentration of 12 mg/kg (Table 1).

7.4.2 Lead

Lead was detected in samples PI5-0.5 through PI8-0.5 at concentrations ranging from 5.31 mg/kg (PI8-0.5) to 67.0 mg/kg (PI7-0.5). None of the lead concentrations exceeded the US EPA RSL of 400 mg/kg or the DTSC-SL of 80 mg/kg for residential land use (Table 1).

7.4.3 Organochloride Pesticides

Concentrations of 4,4'-DDE and 4,4'-DDT were detected in the samples collected on the subject site. The maximum concentrations of 4,4'-DDE (0.012 milligrams per kilogram [mg/kg] in PI5-0.5) and 4,4'-DDT (0.011 mg/kg in PI7-0.5) were both below their respective US EPA RSLs and DTSC-SLs for residential land use (Table 2).

8.0 FINDINGS

Leighton performed Phase I and Limited Phase II ESA for the Pioneer School Site, located at 1651 East Rowland Avenue in the City of Covina, California (subject site – Figure 1) in accordance with Lewis's authorization.

8.1 Onsite

Historically, the subject site was agricultural land until 1958 when Pioneer School was constructed. Based on the results of our concurrent Limited Phase II ESA (summarized in Section 7.0), OCPs and lead were not detected in near surface soil samples collected from the subject site at concentrations that would pose a threat to human health and/or the environment. The historical use of the subject site as agricultural land is not considered a REC.

Currently, the subject site consists of an approximately 8.77-acre school site consisting of eight classroom buildings, an administration building, a cafeteria, and athletic fields (Photos 1 through 25, Appendix B).

A search of selected government databases was conducted by Leighton using the EDR Radius Report environmental database report system. Details of the database search along with descriptions of each database researched are provided in the EDR database report. The report meets the government records search requirements of ASTM E1527-13 Standard Practice for Environmental Property Assessments: Phase I ESA Environmental Property Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-13. The subject site was not identified in the EDR radius map report.

The limited Phase II ESA did not detect concentrations of arsenic, lead, or OCPs in excess of residential US EPA RSLs or DTSC-SLs on the subject site.

8.2 Offsite

Historically, the adjacent properties were agricultural land. The adjacent properties to the northwest, west, and south were developed for residential use beginning in the mid-1950s. The surrounding properties to the northeast, east and southeast were developed for commercial use beginning in the early 1960s.

Currently, the subject site is bordered to the north by single family residences and a supermarket; to the east commercial development. The subject site is bordered to the south by East Rowland Avenue. Adjacent to the south of East Rowland Avenue the land is developed for residential and commercial use. The properties adjacent to the west of the subject site are residential.

Surrounding properties with environmental concern were not identified during this Phase I ESA.

8.3 Data Gaps

No significant data gaps were identified by Leighton.

9.0 OPINION

9.1 Onsite

It is Leighton's opinion that no RECs, CRECs, or HRECs were identified for the subject site.

9.2 Offsite

No offsite RECs, HRECs, or CRECs were identified that would negatively impact the subject site.

10.0 CONCLUSIONS

We have performed a Phase I and Limited Phase II ESA in conformance with the scope and limitations of ASTM E1527-13 of the Pioneer School Site, located at 1651 East Rowland Avenue in the City of West Covina, California. Exceptions to, or deletions from, this practice are described in Sections 1.5 and 11 of this report. This assessment has revealed no RECs, HRECs, or CRECs in connection with the subject site.

In general, observations should be made during future subject site 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.

11.0 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 affect the ability of Leighton to identify RECs at the subject site.

12.0 ADDITIONAL SERVICES

Leighton did not perform work outside the scope of work as defined in Section 1.3 of this report.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

13.1 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 offices 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 Site Assessments are a part of this practice area and have been conducted by us.

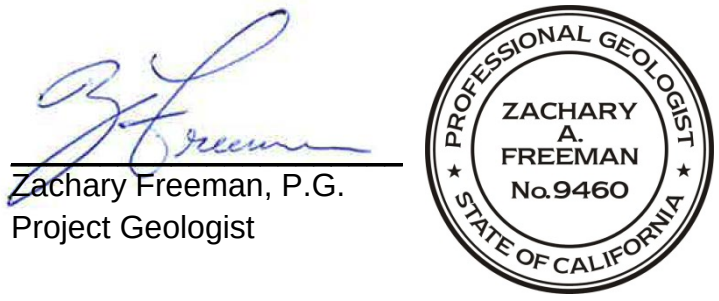
13.2 Individual

The qualifications of the Project Manager and the other Leighton environmental professionals involved in this Phase I and limited Phase II ESA meet the Leighton corporate requirements for performing Phase I ESAs as specified by ASTM E1527-13.

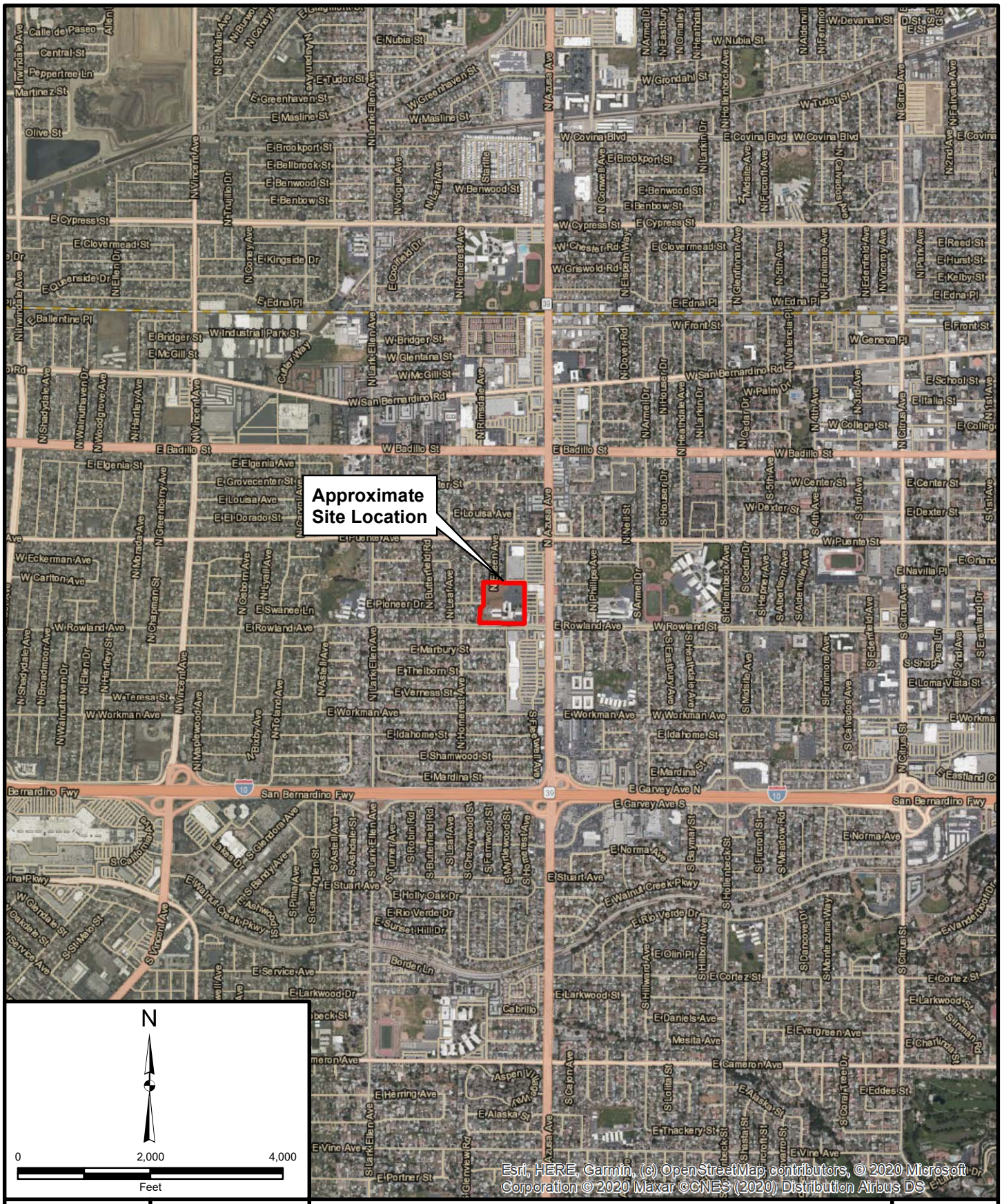
13.3 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined by §312.10 of 40 CFR Part 312.

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



Zachary Freeman, P.G.
Project Geologist



Project: 12064.003	Eng/Geol: ZAF
Scale:1 " = 2,000 '	Date: July 2020

Base Map: ESRI ArcGIS Online 2020
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

SITE LOCATION MAP

CVUSD Pioneer School
1651 East Rowland Avenue
West Covina, California

Figure 1

Leighton

Map Saved as V:\Drafting\12064\003\Maps\12064.003_F01_SLM_2020-07-08.mxd on 7/8/2020 11:02:15 AM

Legend

- June 2018 Lead and OCP Samples
- Photo Location and Direction
- Approximate Site Boundary

N Hon Nilson Ave
N Eileen Ave
E Pioneer Dr
1611
1618
1693
E Rowland Ave
1761
1771

PI1
PI2
PI4
PI5
PI6
PI7
PI8

12
13
10
15
12
1
14
5
16
9
11
6
Cafeteria
22
24
25
23
20
19
17
Playground
18
4
2
3
7
8
Classrooms
Classrooms
Classrooms
Classrooms
Restroom
Restroom
Gas Meter Vault
Ceramics Storage Area
Relocatable Classrooms
Administration

N

0 80 160
Feet

Project: 12064.003	Eng/Geol: ZAF
Scale:1 " = 80 '	Date: July 2020

Base Map: ESRI ArcGIS Online 2020
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

SITE PLAN

CVUSD Pioneer School
1651 East Rowland Avenue
West Covina, California

Figure 2

Leighton

Map Saved as V:\Drafting\12064\003\Maps\12064.003_F02_SP_2020-07-09.mxd on 7/9/2020 4:20:51 PM

Table 1
Summary of Lead and Arsenic in Soil
Pioneer Elementary School
West Covina, California

Sample ID Number	Depth (ft bgs)	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)	Dilution Factor
PI1-0.5	0.5	6/25/2018	**4.57**	-	1
PI2-0.5	0.5	6/25/2018	**3.90**	-	1
PI3-0.5	0.5	6/25/2018	**6.29**	-	1
PI4-0.5	0.5	6/25/2018	**3.76**	-	1
PI5-0.5	0.5	6/25/2018	-	**14.6**	1
PI6-0.5	0.5	6/25/2018	-	**10.9**	1
PI7-0.5	0.5	6/25/2018	-	**67.0**	1
PI8-0.5	0.5	6/25/2018	-	**5.31**	1
US EPA Residential RSLs			0.68	400	-
DTSC Modified Residential SLs			0.11	80	-
DTSC Backgound As Concentration			12	-	-

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilograms
US EPA Residential RSL = United States Environmental Protection Agency Residential Regional Screening Level (May 2020)
DTSC Modified Residential SLs = Department of Toxic Substances Control Human Health Risk Assessment Note 3 Screening Levels for residential land use (June 2020)
DTSC Background As Concentration = Arsenic screening level from *Determination of a* Southern California Regional Arsenic Concentration in Soil, California Department of Toxic Substance Control (DTSC), March 2008.

Table 2
Summary of OCPs in Soil
Pioneer Elementary School
West Covina, California

Sample ID Number	Depth (ft bgs)	Date Sampled	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Dilution Factor
PI1-0.5	0.5	6/25/2018	<0.0001	<0.0001	1
PI2-0.5	0.5	6/25/2018	**0.0006J**	<0.0001	1
PI3-0.5	0.5	6/25/2018	<0.0001	**0.0008J**	1
PI4-0.5	0.5	6/25/2018	**0.001**	**0.0008J**	1
PI5-0.5	0.5	6/25/2018	**0.012**	**0.003J**	5
PI6-0.5	0.5	6/25/2018	<0.0001	<0.0001	1
PI7-0.5	0.5	6/25/2018	**0.008J**	**0.011**	10
PI8-0.5	0.5	6/25/2018	<0.0001	<0.0001	1
US EPA Residential RSLs			2.0	1.9	-
DTSC Modified Residential SLs			2.0	1.9	-

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilograms
<0.0001 = concentration is less than laboratory method detection limit of 0.0001 mg/kg
J = Indicates an estimated value between laboratory detection limit and practical quantitation limit.
US EPA Residential RSL = United States Environmental Protection Agency Residential Regional Screening Levels (May 2020)
DTSC Modified Residential SLs = Department of Toxic Substances Control Human Health Risk Assessment Note 3 Screening Levels for residential land use (June 2020)

APPENDIX A
REFERENCES

APPENDIX A

References

ASTM International, 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, dated November 6, 2013.

California Geological Energy Management Division, 2020, Online Mapping System, accessed June 29, 2020.

California Department of Health Services, 2010, California Indoor Radon Levels Sorted by Zip Code, May 4, 2010.

California Department of Water Resources (DWR), 2004, Bulletin 118: California's Groundwater.

California Department of Water Resources (DWR), 2018, Water Data Library online database, http://www.water.ca.gov/waterdatalibrary/, accessed July 21, 2018.

ERIS, Inc., Historical Aerial Report, November 14, 2018.

ERIS, Inc., Fire Insurance Map Research Results, dated November 15, 2018.

ERIS, Inc., Historical Directory Report, dated November 15, 2018.

ERIS, Inc., Historical Topographic Map Research Results, dated November 15, 2020.

ERIS, Inc., Database Report, dated November 16, 2020.

NETR Real Estate Research and Information, LLC, Environmental Lien and AUL Search Report, November 16, 2018.

National Pipeline Mapping System, 2020, https://www.npms.phmsa.dot.gov/, accessed July 2, 2020.

State Water Resources Control Board, 2020, Geotracker Online Database http://geotracker.waterboards.ca.gov/, accessed July 2, 2020.

USGS (United States Geological Survey), 2012, Baldwin Park Quadrangle, 7.5 minute series (topographic) map; dated 2015.

APPENDIX B

SITE RECONNAISSANCE PHOTOS

Leighton

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 1 **View of Direction of Photo:** Northwest **Description**: Interior of a typical classroom at the subject site.	

Photo No. 2 **View of Direction of Photo:** Northeast **Description**: Light staining on the floor of the HVAC room	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 3	
View of Direction of Photo: Southeast	
Description: Electrical circuit breaker panel in the HVAC electrical room, no staining observed associated with the electrical equipment.	

Photo No. 4	
View of Direction of Photo: East	
Description: Exterior door to the HVAC/Electrical room with a sign warning of asbestos containing materials.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 5	
View of Direction of Photo: Southeast	
Description: Classroom interior view.	

Photo No. 6	
View of Direction of Photo: Northeast	
Description: Cafeteria interior view	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 7	
View of Direction of Photo: North	
Description: Interior view of the cafeteria scullery.	

Photo No. 8	
View of Direction of Photo: South	
Description: Interior view of the cafeteria kitchen.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 9	
View of Direction of Photo: West	
Description: Interior view of the administration building.	

Photo No. 10	
View of Direction of Photo: West	
Description: View of the gas meter vault and associated ventilation riser.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 11	
View of Direction of Photo: North	
Description: Interior view of the administration building.	

Photo No. 12	
View of Direction of Photo: Northeast	
Description: View of the ceramics class storage area.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 13	
View of Direction of Photo: East	
Description: View across the northern portion of the subject site.	

Photo No. 14	
View of Direction of Photo: East	
Description: View across the east side of the subject site.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 15	
View of Direction of Photo: South	
Description: View looking south across the west side of the subject site.	

Photo No. 16	
View of Direction of Photo: Northeast	
Description: View across the center of Pioneer School.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 17 **View of Direction of Photo:** South **Description**: View looking south across the middle of the subject site.	

Photo No. 18 **View of Direction of Photo:** Northwest **Description**: View of the playground on the east side of the subject site.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 19	
View of Direction of Photo: North	
Description: View across the northern parking lot on the east side of the subject site.	

Photo No. 20	
View of Direction of Photo: Southwest	
Description: View across the subject site.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 21	
View of Direction of Photo: West	
Description: View across the northern portion of the subject site.	

Photo No. 22	
View of Direction of Photo: Northwest	
Description: View of the structure that formerly contained the subject site's main electrical transformer.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 23 **View of Direction of Photo:** South **Description**: View of the business (gym) adjacent to the south of the subject site.	

Photo No. 24 **View of Direction of Photo:** North **Description**: View of the south-facing side of Pioneer School.	

Leighton and Associates, Inc.	**PHOTOGRAPHIC RECORD** **June 25, 2020**	
Client Name: **Lewis Land Developers, Inc.**	**Site Location:** **1651 East Rowland Avenue, West Covina, CA**	**Project No.** **12064.003**

Photo No. 25	
View of Direction of Photo: Northwest	
Description: View of the south-facing side of Pioneer School	

APPENDIX C
USER PROVIDED INFORMATION

Leighton

Phase I ESA Users Questionnaire

Project Name: Pioneer School

Complete and Correct Address(es) of the Property and APN(s):

160 Barranca Ave. West Covina, CA

User Company Name:	**User Name/Title:**
Lewis Land Developers LLC	Kyle Weichert, Vice President

User Phone/Email:

Interviewee Name and Relationship to Project:

Purchaser - In escrow to purchase the property

Site Owner: Covina Valley unified School District

Reason Phase I is required:

To determine if Property has any RECs or requires additional testing or mitigation

Type of property:

Vacant, former elementary school

Type of property transaction (e.g., Sale, purchase, exchange):

Purchase

Any scope of services beyond the ASTM Practice E 1527:

All Parties that will rely on the Phase I report:

Lewis Land Developers, LLC

Name and Contact Information for Site Contact:

Rich Rebenstorff, Director of Facilities = rrebenstorff@c-vusd.org

Any special terms or conditions:

No

Any other pertinent knowledge or experience with the property (e.g., prior reports, documents, correspondence concerning the environmental conditions of the property):

None

(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: Past use of property is a school

(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:

Kyle Weichert
Signature

7/2/2020
Date

Leighton

Phase I ESA Owner/Site Contact Interview Form

Interviewee Name: Mike Stragier **Title:** M.O.F.T. Manager

Address: 519 E. Badillo St. Covina **Phone:** 626)974-7000

Relationship to Property: Owner Representative

Name of Property Owner: Covina-Valley Unified School District

Address of Property Owner: 519 E. Badillo St. Covina, 91723.

Site Name: Pioneer Adult School

Property Address: 1651 E. Rowland

Previous Street Names/Numbers:

General Business Type/Present Property Use: Education

Property Utilization during Ownership: Adult Education nd K-6 elementary schoool

Assessor Parcel #: Lot8 of block 17 **Grant Total Square Footage:** 415,480

Total # of Buildings: 10 **Date Built:** 1958

Name and Address of Past Owners (include dates of ownership):

Mr Smith and Mr. Gieselman

Past Property Uses (include dates): Agriculture/Residential

Source of Potable Water Supply (municipal/groundwater wells): Municipal

Sewage Disposal (municipal/septic) (provide name of utility): Sewage/City of West Covina

Means of Heating/Cooling (gas, electric, heating oil, etc.): Gas

Fuel Source for Heating/Air Conditioning (provide name of utility): So. Cal. Gas Co.

Neighboring Property Types (commercial/industrial/residential): Commercial/Residential

Current Uses of Adjoining Properties:

North: residential

South: commercial/residential

East: commercial

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		✔		
• 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)		✔		

Leighton

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:

Site buildings may contain asbestos insulating material or asbestos containing material

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.

Signature

7/2/2020

Date

Leighton

Zachary Freeman

From: Mike Stragier <mstragier@c-vusd.org>
Sent: Thursday, July 2, 2020 8:46 AM
To: Zachary Freeman
Subject: Re: Phase 1 Questionnaire for Covina-Valley

Zach,

The questions didn't allow for an explanation. The hazmat waste and material is the asbestos that I mentioned in the last section of the survey. There may be ACM floor tile, mastic and insulation throughout some of the buildings. We did an asbestos abatement at the school, but I cannot say for certain that none remains. The vent pipe that I referred to is the gas company's vent pipe at the point of connection on the west side of the site. There is not an underground tank at the site.

Sorry for the confusion,

On Thu, Jul 2, 2020 at 8:36 AM Zachary Freeman <zfreeman@leightongroup.com> wrote:

> Hi Mike,
>
> Thanks for responding so quickly. I wanted to follow up on a few of the questions in the Phase I questionnaire. You indicated that there were hazardous wastes, hazardous materials, and MSDS sheets for the school. During my site walk I found a binder full of MSDS sheets for the cleaning products used in the cafeteria. Could you elaborate on what other kinds of hazardous materials or hazardous wastes there might have been on the campus? You also indicated the presence of fill pipes or vent pipes that indicated the presence of an underground storage tank. Is there a tank on the school site? I'm aware of that big vent pipe out on the west side of the play field, according to Jesse that is part of the gas meter vault for the school.
>
> Many thanks,
>
> **Zach Freeman, PG**
> Environmental Project Geologist
> 10532 Acacia Street Suite B-6
> Rancho Cucamonga, CA 91786
> 951-743-2642 Mobile
> 909-527-8785 Office
> **Leighton**
> Solutions You Can Build On
>
>

Please consider the environment before printing this e-mail.

From: Mike Stragier [mailto:mstragier@c-vusd.org]
Sent: Wednesday, July 1, 2020 12:34 PM
To: Zachary Freeman <zfreeman@leightongroup.com>
Cc: Richard Rebenstorff <rrebenstorff@c-vusd.org>
Subject: Phase 1 Questionnaire for Covina-Valley

Zach,

Please feel free to contact me if you have any more questions regarding the history of this property.

Thank you,

--

Mike Stragier

Manager of MOF&T

Covina-Valley Unified School District

--
Mike Stragier
Manager of MOF&T
Covina-Valley Unified School District

APPENDIX D

ENVIRONMENTAL LIEN AND AUL SEARCH REPORT

Leighton

The NETR Environmental Lien and AUL Search Report

1651 EAST ROWLAND AVENUE
WEST COVINA, CALIFORNIA

Friday, November 16, 2018

Project Number: L18-02002

2055 East Rio Salado Parkway
Tempe, Arizona 85281

Telephone: 480-967-6752
Fax: 480-966-9422

ENVIRONMENTAL LIEN AND AUL REPORT

The NETR Environmental LienSearch 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 controls 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 recorders' office, registries of deed, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved and description); and
- provide a copy of the deed or cite documents reviewed;

Thank you for your business
Please contact NETR at 480-967-6752
with any questions or comments

ENVIRONMENTAL LIEN AND AUL REPORT

The NETR Environmental Lien Search Report is intended to assist in the search for environmental liens filed in land title records.

TARGET PROPERTY INFORMATION

ADDRESS

1651 East Rowland Avenue
West Covina, California

RESEARCH SOURCE

Source: Los Angeles County Assessor
Los Angeles County Recorder

DEED INFORMATION

Type of Instrument: Final Order Of Condemnation

Grantor: Lawrence R. Gieselman, et al., defendants

Grantee: Covina School District, Plaintiff

Deed Dated: 10/28/1957
Deed Recorded: 11/12/1957
Instrument: 2466

LEGAL DESCRIPTION

That portion of Lots 7 and 8, of the Phillips Tract, according to the map or plat thereof, as filed of record in Book 9, Page 3, Los Angeles County, State of California

Assessor's Parcel Number(s): 8442-018-900

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found ☐ Not Found ☒

ENVIRONMENTAL LIEN AND AUL REPORT

TARGET PROPERTY INFORMATION

ADDRESS

1651 East Rowland Avenue
West Covina, California

RESEARCH SOURCE

Source: Los Angeles County Assessor
Los Angeles County Recorder

DEED INFORMATION

Type of Instrument: Final Order Of Condemnation

Grantor: Lawrence R. Gieselman, et al., defendants

Grantee: Covina School District, Plaintiff

Deed Dated: 10/28/1957
Deed Recorded: 11/12/1957
Instrument: 2466

LEGAL DESCRIPTION

That portion of Lot 7, of the Phillips Tract, according to the map or plat thereof, as filed of record in Book 9, Page 3, Los Angeles County, State of California

Assessor's Parcel Number(s): 8442-021-900

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found ☐ Not Found ☒

THIS CERTIFIED COPY IS GIVEN FREE OF CHARGE PURSUANT TO LAW SOLELY UPON THE CONDITION THAT IT IS TO BE USED FOR OFFICIAL BUSINESS AND/OR TO DETERMINE ELIGIBILITY FOR VETERANS BENEFITS.

THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED IS A FULL, TRUE AND CORRECT COPY OF THE ORIGINAL ON FILE AND OF RECORD IN MY OFFICE, AND HAVING BEEN FILED Oct. 22nd 1957 AND ENTERED Oct. 22nd 1957 JUDGMENT BOOK 2341 PAGE 250 ATTEST November 5th 19 57 HAROLD J. OSTLY County Clerk and Clerk of the Superior Court of the State of California, in and for the County of Los Angeles. BY [signature] DEPUTY

HAROLD W. KENNEDY, COUNTY COUNSEL
1100 HALL OF RECORDS
LOS ANGELES, CALIFORNIA
NO. 9211

RECORDING REQUESTED BY

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF LOS ANGELES

COVINA SCHOOL DISTRICT,

Plaintiff,

vs.

LAWRENCE R. GIESELMAN, et al.,

Defendants.

No. 678378

FINAL ORDER OF CONDEMNATION

(Parcel 2)

It appearing satisfactorily to the Court that the plaintiff has paid to the defendants, LAWRENCE R. GIESELMAN and LOIS M. GIESELMAN, owners of the real property described in the complaint on file herein as Parcel 2, the sums provided to be paid by the terms of the interlocutory judgment in condemnation made and filed herein;

NOW, THEREFORE, on motion of HAROLD W. KENNEDY, County Counsel, and EDWIN P. MARTIN, Deputy County Counsel, attorneys for plaintiff, it is hereby ORDERED, ADJUDGED AND DECREED:

That the real property heretofore referred to and described as Parcel 2, be and the same is condemned as prayed, and the plaintiff, COVINA SCHOOL DISTRICT, shall and by this judgment does take and acquire the fee simple title in and to said parcel of land for the construction and maintenance thereon of public school buildings, grounds and appurtenances thereto and for any public use authorized by law.

Said real property is located in the County of Los Angeles, State of California and is more particularly described as follows:

PARCEL 2:

Those portions of lots 7 and 8 in block 17 of Phillips Tract, in the City of West Covina, County of Los Angeles, State of California, as per map recorded in book 9, pages 3 and 4 of Miscellaneous Records, in the office of the county recorder of said county, described as follows:

Beginning at the northeasterly corner of Tract 22196, as per map recorded in book 599, pages 23 and 24 of Maps, in the office of said county recorder; thence along the easterly line of said Tract 22196, South 0° 12' 55" East 281.40 feet to an angle point; thence continuing southerly along the various courses of said easterly line and the southerly prolongation thereof South 40° 14' 35" West 78.02 feet and South 0° 31' 00" West 269.97 feet to the southerly line of said lot 7; thence along said southerly line of said lot 7 and the southerly line of said lot 8, South 89° 29' 00" East 679.94 feet; thence parallel with the center line of Azusa Avenue as said Avenue is shown on map of said Tract 22196, North 0° 12' 55" East 611.20 feet to the northerly line of said lot 8; thence along the northerly lines of said lot 8 and said lot 7, North 89° 28' 57" West 635.87 feet to the point of beginning.

The Clerk is ordered to enter this final order.

Dated this 28th day of October, 1957.

Stanley Mosk
Presiding Judge.

acting

2466

DOCUMENT NO.
RECORDED AT REQUEST OF

Nov 12 9 44 AM '57

OFFICIAL RECORDS
RAY E. LEE, RECORDER
LOS ANGELES COUNTY, CALIF.

FEE 2.00

HAROLD W. KENNEDY, COUNTY COUNSEL
1100 HALL OF RECORDS
LOS ANGELES, CALIFORNIA
MU. 9211

2466

EPM: jf
10-25-57

APPENDIX E

ENVIRONMENTAL RADIUS REPORT

AND VAPOR ENCROACHMENT SCREEN

Leighton

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Pioneer School* *1651 East Rowland Avenue* *West Covina CA 91791*
Project No:	*12064.003*
Report Type:	*Database Report*
Order No:	*20181114114*
Requested by:	*Leighton and Associates, Inc.*
Date Completed:	*November 16, 2018*

Environmental Risk Information Services
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:		*Pioneer School* *1651 East Rowland Avenue West Covina CA 91791*
Project No:		*12064.003*
Coordinates:		
	Latitude:	*34.080095*
	Longitude:	*-117.910065*
	UTM Northing:	*3,771,410.54*
	UTM Easting:	*416,035.13*
	UTM Zone:	*UTM Zone 11S*
Elevation:		*469 FT*

Order Information:

Order No:	*20181114114*
Date Requested:	*November 14, 2018*
Requested by:	*Leighton and Associates, Inc.*
Report Type:	*Database Report*

Historicals/Products:

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
ODI	Y	.5	0	0	0	0	-	0
CERCLIS	Y	.5	0	0	0	0	-	0
IODI	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	1	1
RCRA TSD	Y	.5	0	0	0	0	-	0
RCRA LQG	Y	.25	0	0	1	-	-	1
RCRA SQG	Y	.25	0	2	0	-	-	2
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
SUPERFUND ROD	Y	1	0	0	0	0	0	0
State								
RESPONSE	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
ENVIROSTOR	Y	1	0	0	0	3	0	3
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	1	0	1
LDS	Y	.5	0	0	0	0	-	0
SWAT	Y	.5	0	0	0	0	-	0
LUST	Y	.5	0	0	2	5	-	7
DELISTED LST	Y	.5	0	0	0	0	-	0
SWRCB SWF	Y	.5	0	0	0	0	-	0
UST	Y	.25	0	0	0	-	-	0
UST CLOSURE	Y	.5	0	0	0	0	-	0
HHSS	Y	.25	0	0	1	-	-	1
AST	Y	.25	0	0	0	-	-	0
DELISTED TNK	Y	.25	0	0	2	-	-	2
CERS TANK	Y	.25	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
DELISTED CTNK	Y	.25	0	0	0	-	-	0
HIST TANK	Y	.25	0	0	1	-	-	1
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
UST ELSEGUNDO	Y	.25	0	0	0	-	-	0
UST SANTAFESP	Y	.25	0	0	0	-	-	0
SANTAMON AST	Y	.25	0	0	0	-	-	0
SANTAMON CUPA	Y	.25	0	0	0	-	-	0
UST SANTA MONICA	Y	.25	0	0	0	-	-	0
UST TORRANCE	Y	.25	0	0	0	-	-	0
VERNON CUPA	Y	.25	0	0	0	-	-	0
UST VERNON	Y	.25	0	0	0	-	-	0
LA HMS	Y	.25	0	2	2	-	-	4
UST LONGB	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
LA SWF	Y	.5	0	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
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	0	-	-	0
SSTS	Y	.25	0	0	0	-	-	0
PCB	Y	.5	0	0	0	0	-	0

State

DRYCLEANERS	Y	.25	0	3	0	-	-	3
DELISTED DRYCLEANERS	Y	.25	0	0	0	-	-	0
DRYC GRANT	Y	.25	0	1	0	-	-	1
HWSS CLEANUP	Y	.5	0	0	0	0	-	0
DTSC HWF	Y	.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	0	0	0
CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	1	2	-	-	-	3
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HIST CORTESE	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
CDO/CAO	Y	.5	0	0	0	0	-	0
CERS HAZ	Y	.125	0	5	-	-	-	5
DELISTED HAZ	Y	.5	0	0	0	0	-	0
WASTE DISCHG	Y	.25	0	0	0	-	-	0
EMISSIONS	Y	.25	0	2	1	-	-	3
CDL	Y	.125	0	1	-	-	-	1
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
LA SML	Y	.5	0	0	0	0	-	0
SANTAMON HAZ	Y	.25	0	0	0	-	-	0
SANTAMON HW	Y	.25	0	0	0	-	-	0
Total:			1	18	10	9	1	39

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	HAZNET	COVINA VALLEY USD - PIONEER CTR	1651 E ROWLAND AVE WEST COVINA CA 917911250	-	0.00 / 0.00	0	23

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	ANDREW & ELIZABETH GUERRERO	601 N EILEEN AVE WEST COVINA CA 917911231	NNW	0.01 / 46.39	1	23
3	HAZNET	MICHAEL DOBSZEWICZ	600 N EILEEN AVE WEST COVINA CA 917911230	NNW	0.01 / 47.24	1	24
4	CERS HAZ	AT&T Mobility - 39 HIGHWAY / PUENTE (USID12173)	521 N AZUSA AVE WEST COVINA CA 91791	E	0.06 / 342.65	5	24
4	CERS HAZ	SHERWIN-WILLIAMS #1517	521 N AZUSA AVE WEST COVINA CA 91791	E	0.06 / 342.65	5	26
5	EMISSIONS	STEAK CORRAL	501 N AZUSA WEST COVINA CA 91791	ESE	0.07 / 343.80	4	30
6	CDL		615 N AZUSA AVE WEST COVINA CA 91290	NE	0.07 / 387.83	9	30
6	CERS HAZ	Food 4 Less #337	615 N AZUSA AVE WEST COVINA CA 91791	NE	0.07 / 387.83	9	30
6	LA HMS		615 N AZUZA AVE WEST COVINA CA 91790	NE	0.07 / 387.83	9	33
7	CERS HAZ	$1 DOLLAR CLEANERS	610 N AZUSA AVE WEST COVINA CA 91792	ENE	0.08 / 421.10	9	33
7	DRYCLEANERS	ONE DOLLAR CLEANERS	610 N AZUSA AVE WEST COVINA CA 917911147	ENE	0.08 / 421.10	9	37
7	DRYCLEANERS	ONE DOLLAR MOST GARMENT DBA $1 CLEANERS	610 N AZUSA WEST COVINA CA 91791	ENE	0.08 / 421.10	9	37
7	EMISSIONS	1.00 MOST GARMENT CLEANERS	610 N AZUSA AVE WEST COVINA CA 91792	ENE	0.08 / 421.10	9	38

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
7	RCRA SQG	ONE DOLLAR CLEANERS	610 N AZUZA AVE WEST COVINA CA 91791	ENE	0.08 / 421.10	9	38
8	CERS HAZ	Big Lots West Covina 4066	635 N AZUSA AVE WEST COVINA CA 91791	NE	0.11 / 582.44	12	39
9	DRYCLEANERS	VALET CLEANERS	425 N AZUSA AVE WEST COVINA CA 917900000	SE	0.12 / 639.35	-2	41
9	DRYC GRANT	HQ Cleaners	425 N Azusa Ave West Covina CA 91791-1348	SE	0.12 / 639.35	-2	41
9	RCRA SQG	H Q CLEANERS	425 N AZUSA AVE WEST COVINA CA 91791	SE	0.12 / 639.35	-2	42
10	LA HMS		434 N AZUSA AVE WEST COVINA CA 91791	SE	0.12 / 645.10	-1	43
11	LUST	WEST COVINA GAS UP	711 AZUSA AVE N WEST COVINA CA 91791	NNE	0.15 / 809.29	14	43
			Global ID | Status | Status Date: T0603703350 | Completed - Case Closed | 1990-10-09 00:00:00				
12	HHSS	WEST COVINA GAS-UP	711 N. AZUSA AVE WEST COVINA CA 91791	NNE	0.16 / 838.10	15	44
12	LA HMS		711 N AZUSA AVE WEST COVINA CA 91791	NNE	0.16 / 838.10	15	44
12	HIST TANK	WEST COVINA GAS-UP	711 N. AZUSA AVE WEST COVINA CA	NNE	0.16 / 838.10	15	44
13	RCRA LQG	CVS PHARMACY #9687	702 NORTH AZUSA AVE WEST COVINA CA 91791	NE	0.17 / 896.47	15	45
14	EMISSIONS	RED LOBSTER RESTAURANT #526	381 N AZUSA AVE WEST COVINA CA 91791	SSE	0.17 / 910.46	-4	51
15	LUST	ALL AMERICAN RENT-A-CAR	702 AZUSA AVE N WEST COVINA CA 91791	NE	0.19 / 978.79	16	51
			Global ID | Status | Status Date: T0603704422 | Completed - Case Closed | 1996-09-16 00:00:00				
16	LA HMS		702 N AZUSA AVE WEST COVINA CA 91790	NE	0.19 / 995.85	16	52

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
17	DELISTED TNK	ARCO PRODUCTS #01276	300 N AZUSA AVE WEST COVINA CA 91791	SE	0.23 / 1,196.31	0	52
18	DELISTED TNK	TOSCO/UNOCAL #30670	245 N AZUSA AVE WEST COVINA CA 91791	SE	0.23 / 1,197.64	-3	52
19	LUST	ARCO #1276	300 NORTH AZUSA AVENUE WEST COVINA CA 91790	SSE	0.26 / 1,368.14	-6	53
			Global ID* | *Status* | *Status Date: T0603724238 | Completed - Case Closed | 2010-10-18 00:00:00				
19	LUST	ARCO #1276	300 AZUSA AVE N WEST COVINA CA 91791	SSE	0.26 / 1,368.14	-6	54
			Global ID* | *Status* | *Status Date: T0603703037 | Completed - Case Closed | 1992-02-13 00:00:00				
20	LUST	UNOCAL #4550	245 AZUSA AVE N WEST COVINA CA 91791	SSE	0.33 / 1,757.39	-11	54
			Global ID* | *Status* | *Status Date: T0603703737 | Completed - Case Closed | 1996-03-13 00:00:00				
21	ENVIROSTOR	LA PUENTE DUMP	147 NORTH AZUZA AVENUE LA PUENTE CA 91744	SSE	0.39 / 2,061.30	-13	55
			Estor/EPA ID* | *Cleanup Status: 19490192 | REFER: OTHER AGENCY AS OF 8/15/1995				
22	LUST	MOBIL #11-MHY	107 AZUSA AVE N COVINA CA 91722	NNE	0.40 / 2,105.46	23	57
			Global ID* | *Status* | *Status Date: T0603703397 | Completed - Case Closed | 1996-08-13 00:00:00				
23	ENVIROSTOR	HONEYWELL INC	-- WEST COVINA CA 917900000 ***Estor/EPA ID* | *Cleanup Status:*** CAD008351827 |	WNW	0.42 / 2,241.82	-18	57
23	ENVIROSTOR	HONEYWELL INC	-- WEST COVINA CA 917900000 ***Estor/EPA ID* | *Cleanup Status:*** 80001565 | NO FURTHER ACTION AS OF 9/3/2009	WNW	0.42 / 2,241.82	-18	59
23	HWP	HONEYWELL INC	-- WEST COVINA CA 917900000	WNW	0.42 / 2,241.82	-18	60
24	LUST	Couch Family Trust Residence	220 Houser Dr S Covina CA 91722	ENE	0.49 / 2,589.81	40	61
			Global ID* | *Status* | *Status Date: T10000004628 | Completed - Case Closed | 2014-02-27 00:00:00				
25	RCRA CORRACTS	HUGHES TRAINING INC	1200 E SAN BERNARDINO RD WEST COVINA CA 91791-1098	NNW	0.56 / 2,935.36	2	62

Executive Summary: Summary by Data Source

Standard

Federal

RCRA CORRACTS - RCRA CORRACTS-Corrective Action

A search of the RCRA CORRACTS database, dated Aug 2, 2018 has found that there are 1 RCRA CORRACTS site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
HUGHES TRAINING INC	1200 E SAN BERNARDINO RD WEST COVINA CA 91791-1098	NNW	0.56 / 2,935.36	25

RCRA LQG - RCRA Generator List

A search of the RCRA LQG database, dated Aug 2, 2018 has found that there are 1 RCRA LQG site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
CVS PHARMACY #9687	702 NORTH AZUSA AVE WEST COVINA CA 91791	NE	0.17 / 896.47	13

RCRA SQG - RCRA Small Quantity Generators List

A search of the RCRA SQG database, dated Aug 2, 2018 has found that there are 2 RCRA SQG site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ONE DOLLAR CLEANERS	610 N AZUZA AVE WEST COVINA CA 91791	ENE	0.08 / 421.10	7

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
H Q CLEANERS	425 N AZUSA AVE WEST COVINA CA 91791	SE	0.12 / 639.35	9

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Jul 18, 2018 has found that there are 3 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
LA PUENTE DUMP	147 NORTH AZUZA AVENUE LA PUENTE CA 91744	SSE	0.39 / 2,061.30	21
	***Estor/EPA ID** | **Cleanup Status**: 19490192 | REFER: OTHER AGENCY AS OF 8/15/1995*			
HONEYWELL INC	-- WEST COVINA CA 917900000	WNW	0.42 / 2,241.82	23
	***Estor/EPA ID** | **Cleanup Status**: 80001565 | NO FURTHER ACTION AS OF 9/3/2009*			
HONEYWELL INC	-- WEST COVINA CA 917900000	WNW	0.42 / 2,241.82	23
	***Estor/EPA ID** | **Cleanup Status**: CAD008351827 |*			

HWP - EnviroStor Hazardous Waste Facilities

A search of the HWP database, dated Aug 23, 2018 has found that there are 1 HWP site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
HONEYWELL INC	-- WEST COVINA CA 917900000	WNW	0.42 / 2,241.82	23

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Jul 6, 2018 has found that there are 7 LUST site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
WEST COVINA GAS UP	711 AZUSA AVE N WEST COVINA CA 91791	NNE	0.15 / 809.29	11
	***Global ID** | **Status** | **Status Date**: T0603703350 | Completed - Case Closed | 1990-10-09 00:00:00*			
ALL AMERICAN RENT-A-CAR	702 AZUSA AVE N WEST COVINA CA 91791	NE	0.19 / 978.79	15
	***Global ID** | **Status** | **Status Date**: T0603704422 | Completed - Case Closed | 1996-09-16 00:00:00*			
MOBIL #11-MHY	107 AZUSA AVE N COVINA CA 91722	NNE	0.40 / 2,105.46	22
	***Global ID** | **Status** | **Status Date**: T0603703397 | Completed - Case Closed | 1996-08-13 00:00:00*			
Couch Family Trust Residence	220 Houser Dr S Covina CA 91722	ENE	0.49 / 2,589.81	24
	***Global ID** | **Status** | **Status Date**: T10000004628 | Completed - Case Closed | 2014-02-27 00:00:00*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ARCO #1276	300 AZUSA AVE N WEST COVINA CA 91791	SSE	0.26 / 1,368.14	19
	***Global ID** | **Status** | **Status Date**: T0603703037 | Completed - Case Closed | 1992-02-13 00:00:00*			
ARCO #1276	300 NORTH AZUSA AVENUE WEST COVINA CA 91790	SSE	0.26 / 1,368.14	19

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	Global ID* | *Status* | *Status Date: *T0603724238 | Completed - Case Closed | 2010-10-18 00:00:00*			
UNOCAL #4550	245 AZUSA AVE N WEST COVINA CA 91791	SSE	0.33 / 1,757.39	20
	Global ID* | *Status* | *Status Date: *T0603703737 | Completed - Case Closed | 1996-03-13 00:00:00*			

HHSS - Historical Hazardous Substance Storage Information Database

A search of the HHSS database, dated Aug 27, 2015 has found that there are 1 HHSS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
WEST COVINA GAS-UP	711 N. AZUSA AVE WEST COVINA CA 91791	NNE	0.16 / 838.10	12

DELISTED TNK - Delisted Storage Tanks

A search of the DELISTED TNK database, dated Oct 2, 2018 has found that there are 2 DELISTED TNK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ARCO PRODUCTS #01276	300 N AZUSA AVE WEST COVINA CA 91791	SE	0.23 / 1,196.31	17

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
TOSCO/UNOCAL #30670	245 N AZUSA AVE WEST COVINA CA 91791	SE	0.23 / 1,197.64	18

HIST TANK - Historical Hazardous Substance Storage Container Information - Facility Summary

A search of the HIST TANK database, dated May 27, 1988 has found that there are 1 HIST TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
WEST COVINA GAS-UP	711 N. AZUSA AVE WEST COVINA CA	NNE	0.16 / 838.10	12

County

LA HMS - Los Angeles County HMS List

A search of the LA HMS database, dated Sep 20, 2018 has found that there are 4 LA HMS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	615 N AZUZA AVE WEST COVINA CA 91790	NE	0.07 / 387.83	6
	711 N AZUSA AVE WEST COVINA CA 91791	NNE	0.16 / 838.10	12
	702 N AZUSA AVE WEST COVINA CA 91790	NE	0.19 / 995.85	16

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	434 N AZUSA AVE WEST COVINA CA 91791	SE	0.12 / 645.10	10

Non Standard

State

DRYCLEANERS - Drycleaner Facilities

A search of the DRYCLEANERS database, dated Jun 21, 2018 has found that there are 3 DRYCLEANERS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ONE DOLLAR MOST GARMENT DBA $1 CLEANERS	610 N AZUSA WEST COVINA CA 91791	ENE	0.08 / 421.10	7
ONE DOLLAR CLEANERS	610 N AZUSA AVE WEST COVINA CA 917911147	ENE	0.08 / 421.10	7

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
VALET CLEANERS	425 N AZUSA AVE WEST COVINA CA 917900000	SE	0.12 / 639.35	9

DRYC GRANT - Non-Toxic Dry Cleaning Incentive Program

A search of the DRYC GRANT database, dated Feb 28, 2018 has found that there are 1 DRYC GRANT site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
HQ Cleaners	425 N Azusa Ave West Covina CA 91791-1348	SE	0.12 / 639.35	9

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key

HAZNET - Hazardous Waste Manifest Data

A search of the HAZNET database, dated Oct 24, 2016 has found that there are 3 HAZNET site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ANDREW & ELIZABETH GUERRERO	601 N EILEEN AVE WEST COVINA CA 917911231	NNW	0.01 / 46.39	2
MICHAEL DOBSZEWICZ	600 N EILEEN AVE WEST COVINA CA 917911230	NNW	0.01 / 47.24	3

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
COVINA VALLEY USD - PIONEER CTR	1651 E ROWLAND AVE WEST COVINA CA 917911250	-	0.00 / 0.00	1

CERS HAZ - California Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the CERS HAZ database, dated Jul 9, 2018 has found that there are 5 CERS HAZ site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
AT&T Mobility - 39 HIGHWAY / PUENTE (USID12173)	521 N AZUSA AVE WEST COVINA CA 91791	E	0.06 / 342.65	4
SHERWIN-WILLIAMS #1517	521 N AZUSA AVE WEST COVINA CA 91791	E	0.06 / 342.65	4
Food 4 Less #337	615 N AZUSA AVE WEST COVINA CA 91791	NE	0.07 / 387.83	6
$1 DOLLAR CLEANERS	610 N AZUSA AVE WEST COVINA CA 91792	ENE	0.08 / 421.10	7
Big Lots West Covina 4066	635 N AZUSA AVE WEST COVINA CA 91791	NE	0.11 / 582.44	8

EMISSIONS - Toxic Pollutant Emissions Facilities

A search of the EMISSIONS database, dated Dec 31, 2016 has found that there are 3 EMISSIONS site(s) within approximately 0.25 miles of the project property.

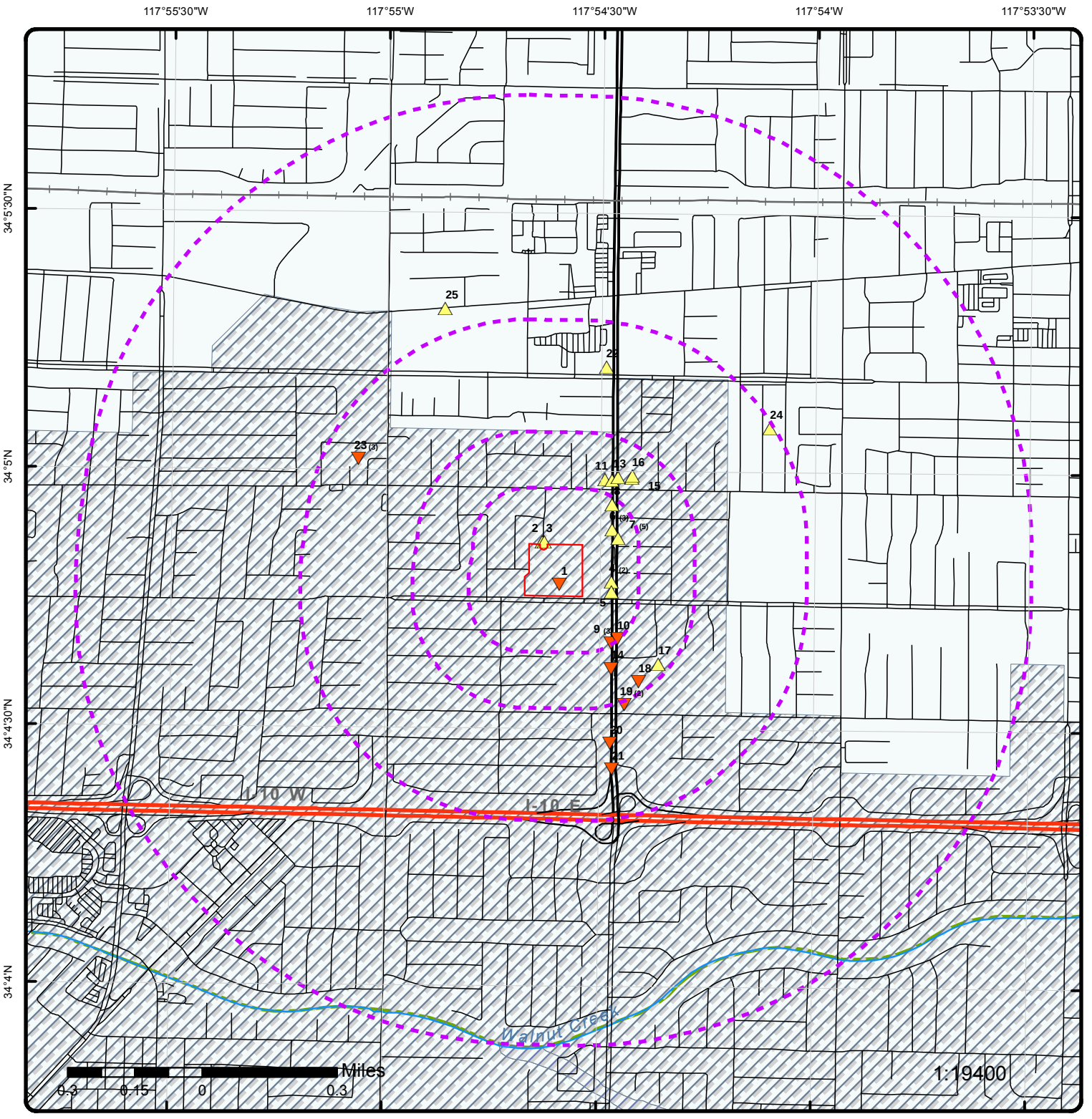
Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
STEAK CORRAL	501 N AZUSA WEST COVINA CA 91791	ESE	0.07 / 343.80	5
1.00 MOST GARMENT CLEANERS	610 N AZUSA AVE WEST COVINA CA 91792	ENE	0.08 / 421.10	7

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
RED LOBSTER RESTAURANT #526	381 N AZUSA AVE WEST COVINA CA 91791	SSE	0.17 / 910.46	14

CDL - Clandestine Drug Lab Sites

A search of the CDL database, dated Dec 31, 2017 has found that there are 1 CDL site(s) within approximately 0.12 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	615 N AZUSA AVE WEST COVINA CA 91290	NE	0.07 / 387.83	6



Map : 1 Mile Radius

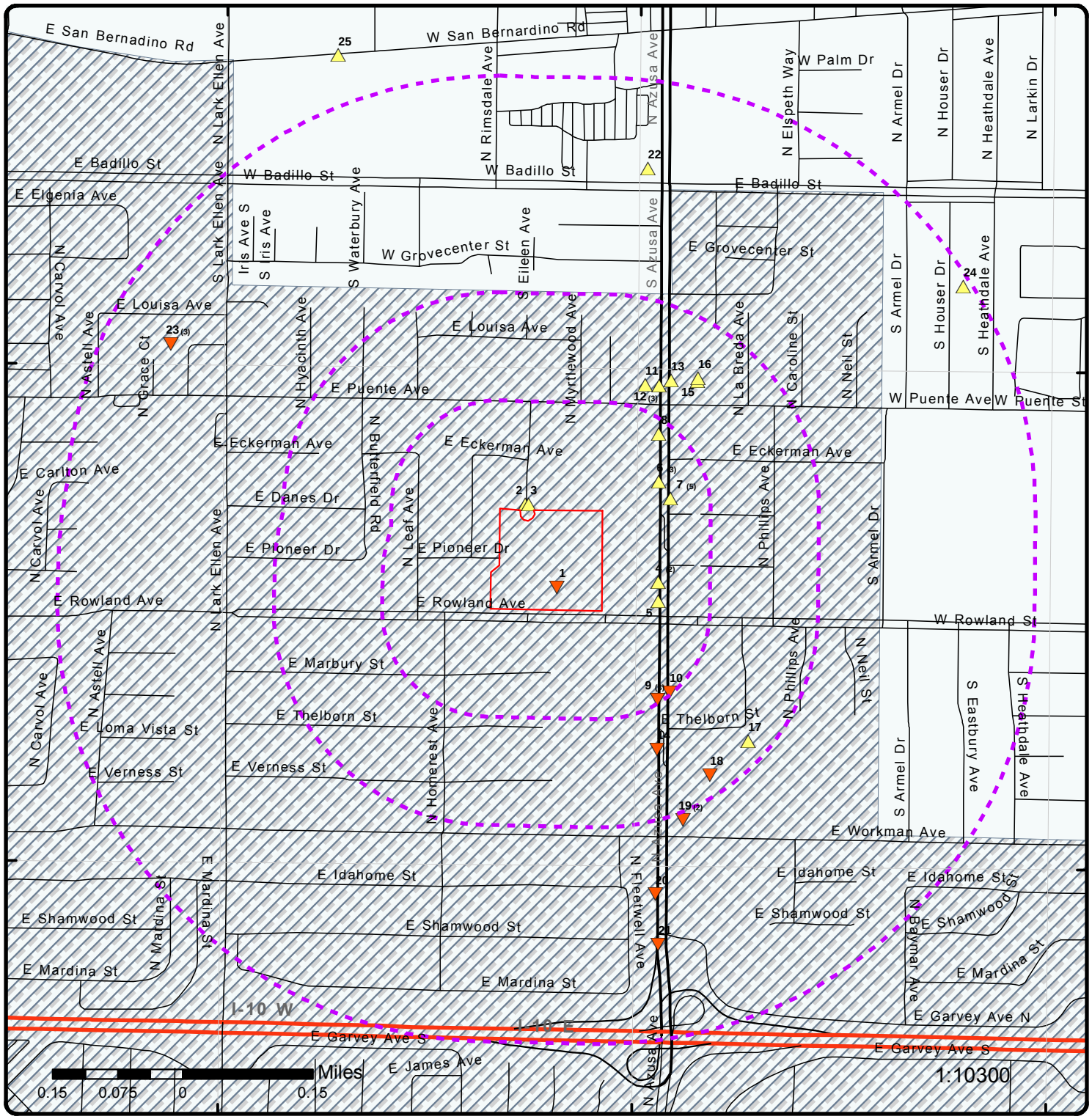
Order No: 20181114114

Address: 1651 East Rowland Avenue, West Covina, CA, 91791

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



Map : 0.5 Mile Radius

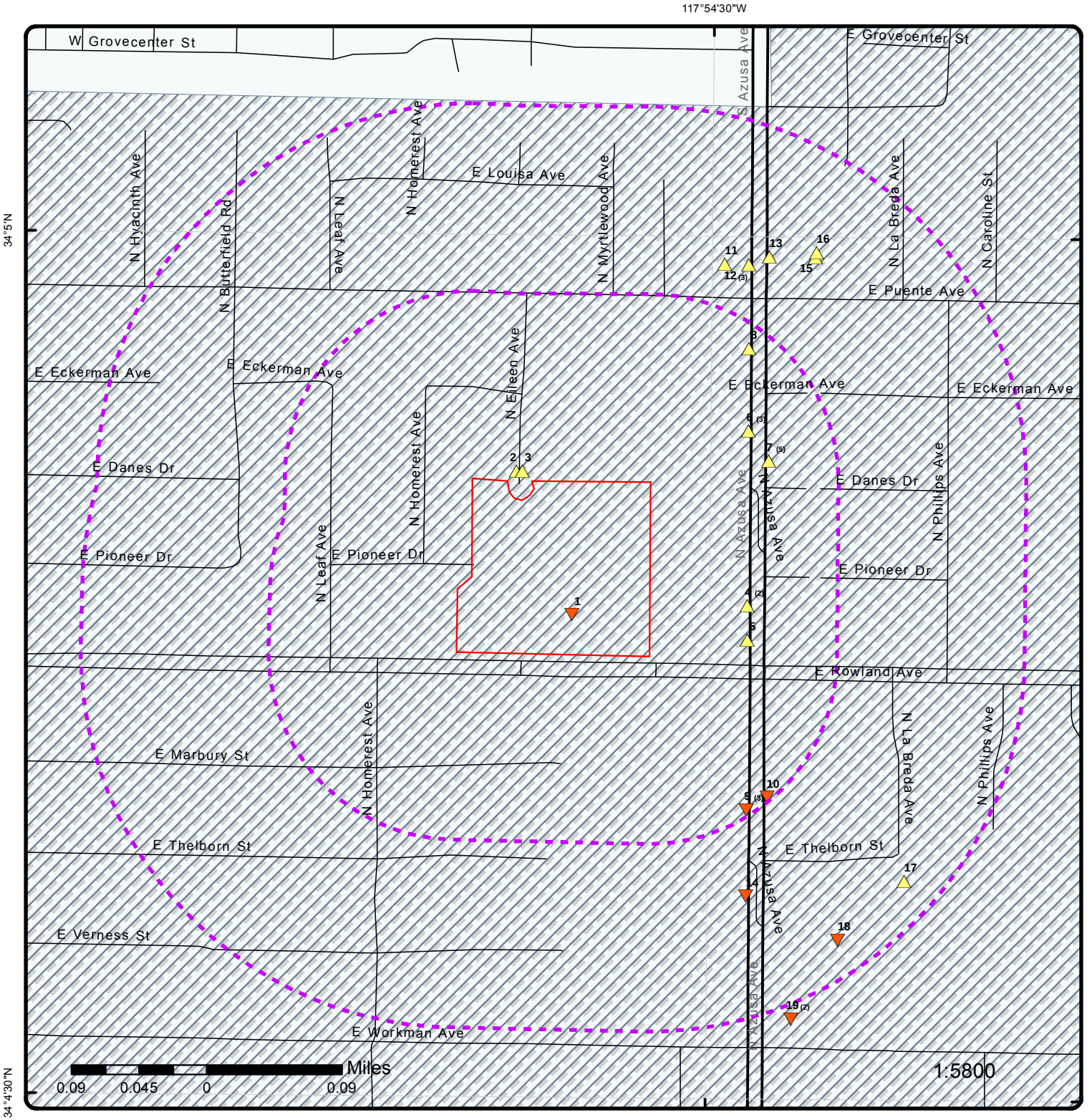
Order No: 20181114114

Address: 1651 East Rowland Avenue, West Covina, CA, 91791

ENVIRONMENTAL RISK INFORMATION SERVICES

Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		

Source: © 2016 ESRI



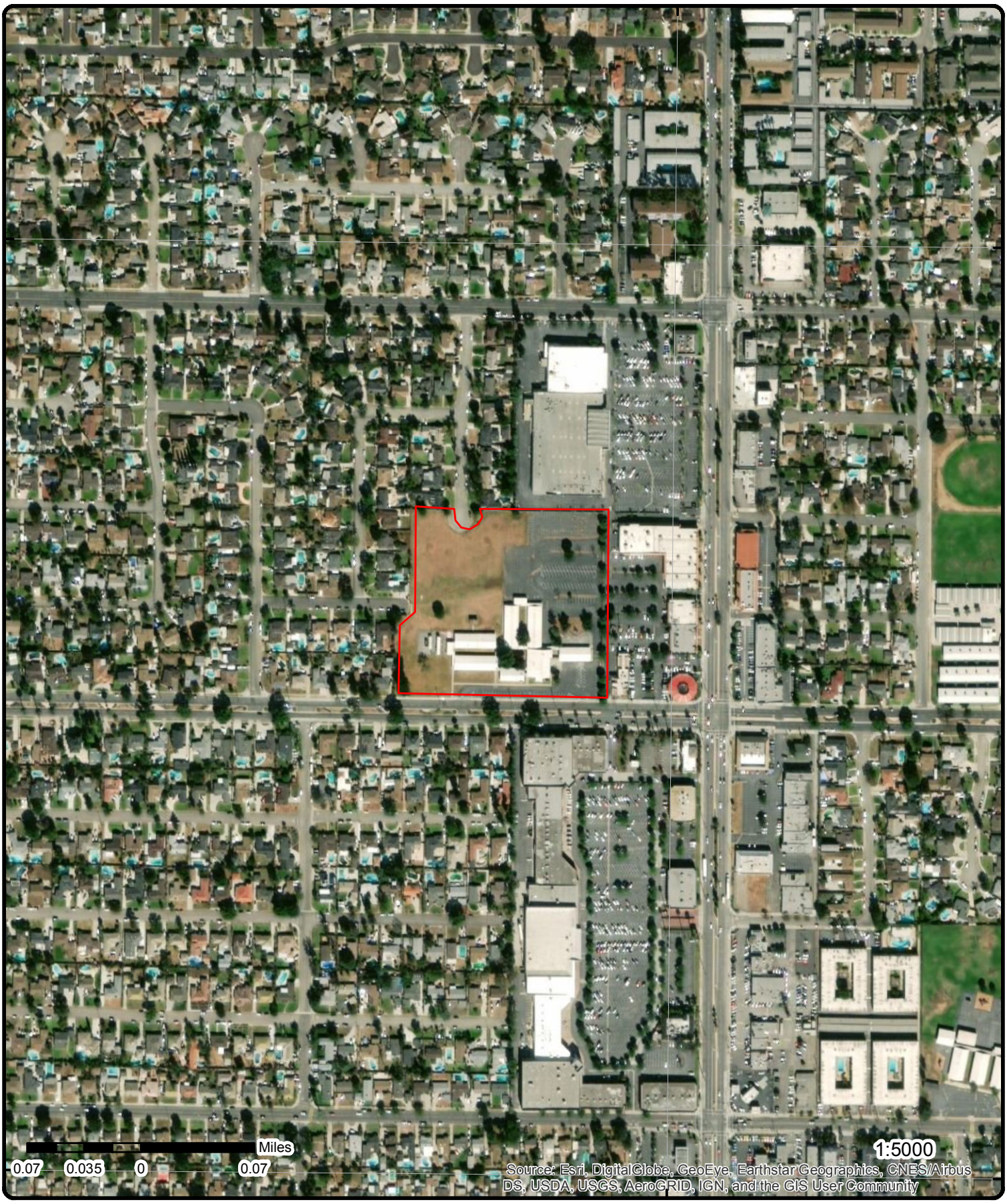
Map : 0.25 Mile Radius

Order No: 20181114114

Address: 1651 East Rowland Avenue, West Covina, CA, 91791

ENVIRONMENTAL RISK INFORMATION SERVICES

Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		



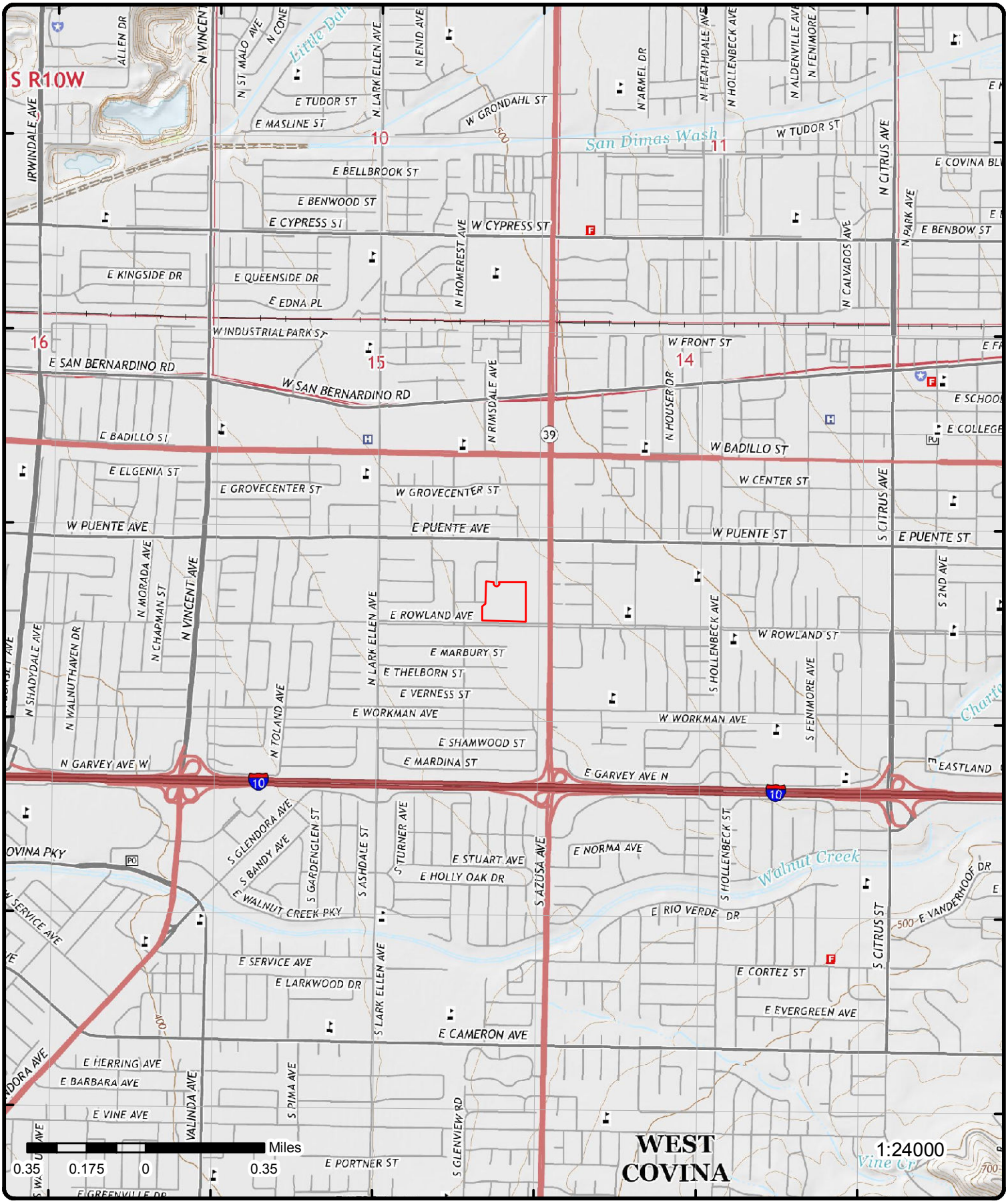
Aerial (2017)

Order No: 20181114114

Address: 1651 East Rowland Avenue, West Covina, CA, 91791

Source: ESRI World Imagery

ENVIRONMENTAL RISK INFORMATION SERVICES



Topographic Map (2015)

Address: 1651 East Rowland Avenue, West Covina, CA, 91791

Quadrangle(s): Baldwin Park, CA

Source: USGS Topographic Map

Order No: 20181114114

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 1	-	0.00 / 0.00	468.87 / 0	COVINA VALLEY USD - PIONEER CTR 1651 E ROWLAND AVE WEST COVINA CA 917911250	HAZNET

SIC Code:		**Mailing City:**	COVINA
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002617426	**Mailing Zip:**	917232803
Create Date:	6/6/2007	**Region Code:**	3
Fac Act Ind:	No	**Owner Name:**	COVINA VALLEY USD
Inact Date:	12/4/2007	**Owner Addr 1:**	519 E BADILLO ST
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	COVINA
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	519 E BADILLO ST	**Owner Zip:**	917232803
Mailing Addr 2:		**Owner Phone:**	6269747000
Owner Fax:			

Contact Information

--	--
Contact Name:	MIKE STRAGIER X 2150
Street Address 1:	519 E BADILLO ST
Street Address 2:	
City:	COVINA
State:	CA
Zip:	917232803
Phone:	6269747000
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of 1	NNW	0.01 / 46.39	470.21 / 1	ANDREW & ELIZABETH GUERRERO 601 N EILEEN AVE WEST COVINA CA 917911231	HAZNET

SIC Code:		**Mailing City:**	WEST COVINA
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002699657	**Mailing Zip:**	917911231
Create Date:	7/20/2012	**Region Code:**	3
Fac Act Ind:	No	**Owner Name:**	ANDREW & ELIZABETH GUERRERO
Inact Date:	10/19/2012	**Owner Addr 1:**	601 N EILEEN AVE
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	WEST COVINA
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	601 N EILEEN AVE	**Owner Zip:**	917911231
Mailing Addr 2:		**Owner Phone:**	6263317732
Owner Fax:			

Contact Information

--	--
Contact Name:	ANDREW & ELIZABETH GUERRERO
Street Address 1:	601 N EILEEN AVE
Street Address 2:	
City:	WEST COVINA
State:	CA
Zip:	917911231
Phone:	6263317732
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 1	NNW	0.01 / 47.24	470.51 / 1	MICHAEL DOBSZEWICZ 600 N EILEEN AVE WEST COVINA CA 917911230	HAZNET

SIC Code:		**Mailing City:**	WEST COVINA
NAICS Code:		**Mailing State:**	CA
EPA ID:	CAC002724822	**Mailing Zip:**	917911230
Create Date:	3/27/2013	**Region Code:**	3
Fac Act Ind:	No	**Owner Name:**	MICHAEL DOBSZEWICZ
Inact Date:	6/26/2013	**Owner Addr 1:**	600 N EILEEN AVE
County Code:	19	**Owner Addr 2:**	
County Name:	Los Angeles	**Owner City:**	WEST COVINA
Mail Name:		**Owner State:**	CA
Mailing Addr 1:	600 N EILEEN AVE	**Owner Zip:**	917911230
Mailing Addr 2:		**Owner Phone:**	6263391737
Owner Fax:			

Contact Information

--	--
Contact Name:	MICHAEL DOBSZEWICZ
Street Address 1:	600 N EILEEN AVE
Street Address 2:	
City:	WEST COVINA
State:	CA
Zip:	917911230
Phone:	6263391737
--	--
--	--

Tanner Information

--	--
Generator EPA ID:	CAC002724822
Generator County Code:	19
Generator County:	Los Angeles
TSD EPA ID:	AZC950823111
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:	0.4
Year:	2013
--	--

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 2	E	0.06 / 342.65	474.12 / 5	AT&T Mobility - 39 HIGHWAY / PUENTE (USID12173) 521 N AZUSA AVE WEST COVINA CA 91791	CERS HAZ

Site ID:	94520
Latitude:	34.079788
Longitude:	-117.908455

Regulated Programs

EI ID:	10198651	**EI Description:**	Chemical Storage Facilities

Affiliations

Affil Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	
Address:	5825 Rickenbacker Road
City:	Commerce

State:	CA
Country:	
Zip Code:	90040-3027
Phone:	(323) 890-4045
Affil Type Desc:	Environmental Contact
Entity Name:	Gretchen Munoz
Entity Title:	
Address:	600 E. Green St., 3rd Floor - Cubicle 65
City:	Pasadena
State:	CA
Country:	
Zip Code:	91101
Phone:	(626) 817-4333
Affil Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	
Address:	308 S. Akard St., 17th Floor
City:	Dallas
State:	TX
Country:	
Zip Code:	75202
Phone:	
Affil Type Desc:	Identification Signer
Entity Name:	Jeremy McGrue
Entity Title:	National EPCRA Manager
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Legal Owner
Entity Name:	NEW CINGULAR WIRELESS PCS, LLC
Entity Title:	
Address:	308 S. Akard St., 17th Floor
City:	Dallas
State:	TX
Country:	United States
Zip Code:	75202
Phone:	(214) 464-1712
Affil Type Desc:	Operator
Entity Name:	AT&T Mobility
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(626) 817-4333
Affil Type Desc:	Primary Emergency Contact
Entity Name:	Gretchen Munoz
Entity Title:	Environmental Site Manager
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(800) 566-9347
Affil Type Desc:	Secondary Emergency Contact
Entity Name:	Wireless Network Control Center
Entity Title:	Call Center
Address:	

City:
State:
Country:
Zip Code:
Phone: (800) 638-2822

Affil Type Desc: Document Preparer
Entity Name: Peter Burnell, Sigma Consultants, Inc.
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Parent Corporation
Entity Name: AT&T Mobility
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Property Owner
Entity Name: NEW CINGULAR WIRELESS PCS, LLC
Entity Title:
Address: 308 S. Akard St., Room 1708
City: Dallas
State: TX
Country: United States
Zip Code: 75202
Phone: (214) 464-2626

Coordinates

Env Int Type Code:	HMBP	***Longitude:***	-117.908450
Program ID:	10198651	***Coord Name:***	
Latitude:	34.079790	***Ref Point Type Desc:***	Center of a facility or station.

Evaluations

Eval Date: 6/9/2015
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Dwane Hartwill

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	2 of 2	E	0.06 / 342.65	474.12 / 5	SHERWIN-WILLIAMS #1517 521 N AZUSA AVE WEST COVINA CA 91791	CERS HAZ

Site ID: 31560
Latitude: 34.079788
Longitude: -117.908455

Regulated Programs

EI ID:	10285864	***EI Description:***	Hazardous Waste Generator
EI ID:	10285864	***EI Description:***	Chemical Storage Facilities

Affiliations

Affil Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	
Address:	5825 Rickenbacker Road
City:	Commerce
State:	CA
Country:	
Zip Code:	90040-3027
Phone:	(323) 890-4045

Affil Type Desc:	Document Preparer
Entity Name:	Yenny Khuu
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Affil Type Desc:	Environmental Contact
Entity Name:	Yenny Khuu
Entity Title:	
Address:	2100 W. Orangewood Ave. Ste100
City:	Cleveland
State:	OH
Country:	
Zip Code:	44115
Phone:	(714) 474-7617

Affil Type Desc:	Property Owner
Entity Name:	JANE'S HOUSE SQUARE LLC
Entity Title:	
Address:	19507 Ventura Blvd
City:	Tarzana
State:	CA
Country:	United States
Zip Code:	91356
Phone:	(818) 343-3000

Affil Type Desc:	Identification Signer
Entity Name:	Yenny Khuu
Entity Title:	Area EHS Manager
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Affil Type Desc:	Legal Owner
Entity Name:	The Sherwin-Williams Company
Entity Title:	
Address:	101 Prospect Ave W. 1000 Midland Building
City:	Cleveland
State:	OH
Country:	United States
Zip Code:	44115
Phone:	(216) 566-1710

Affil Type Desc: Operator

Entity Name: The Sherwin Williams Company
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (216) 566-1710

Affil Type Desc: Parent Corporation
Entity Name: Sherwin-Williams Company
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Secondary Emergency Contact
Entity Name: Jesus Dazid
Entity Title: Assistant Store Manager
Address:
City:
State:
Country:
Zip Code:
Phone: (909) 438-7193

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 521-A N AZUSA AVE
City: WEST COVINA
State: CA
Country:
Zip Code: 91791
Phone:

Affil Type Desc: Primary Emergency Contact
Entity Name: Patricia "Patty" Baldelomar
Entity Title: Store Manager
Address:
City:
State:
Country:
Zip Code:
Phone: (626) 233-8983

Coordinates

Env Int Type Code:	HWG	***Longitude:***	-117.908450
Program ID:	10285864	***Coord Name:***	
Latitude:	34.079790	***Ref Point Type Desc:***	Center of a facility or station.

Evaluations

Eval Date: 5/10/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

JESUS DAVID

Eval Date: 5/10/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

JESUS DAVID NO SIGNIFICANT VIOLATIONS OBSERVED

Eval Date: 12/4/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

KEVIN PAREDES ASSIT MANAGER

Eval Date: 12/4/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

KEVIN PAREDES ASST MANAGER

Violations

Violation Date: 5/10/2018
Violation Division: Los Angeles County Fire Department
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Program:

HW

Violation Source:

CERS

Violation Notes:

OBSERVATION: Observed 1 x 5-gallon black can labeled as hazardous waste with an accumulation start date of May 11, 2015 and 1 x 5-gallon white can without an accumulation start date. CORRECTIVE ACTION: Dispose the observed hazardous waste and submit a copy of the manifest/receipt to the CUPA. Email it to assumpta.desilva@fire.lacounty.gov.

Violation Description:

Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met:
(1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms.

(2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f).

(3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	1 of 1	ESE	0.07 / 343.80	472.83 / 4	STEAK CORRAL 501 N AZUSA WEST COVINA CA 91791	EMISSIONS

1990 Criteria Data

Facility ID:	65847	**CERR Code:**	
Facility SIC Code:	5812	**TOGT:**	.3
CO:	19	**ROGT:**	.12669
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	0
COID:	LA	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	.9
CHAPIS:		**PM10T:**	.855

1990 Toxic Data

Facility ID:	65847	**COID:**	LA
Facility SIC Code:	5812	**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:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	1 of 3	NE	0.07 / 387.83	478.43 / 9	615 N AZUSA AVE WEST COVINA CA 91290	CDL

Clue:	2000-09-004
Date:	9/1/2000
County:	LOS ANGELES
Lab Type:	L
Lab Type Description:	Illegal Drug Lab - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	2 of 3	NE	0.07 / 387.83	478.43 / 9	Food 4 Less #337 615 N AZUSA AVE WEST COVINA CA 91791	CERS HAZ

Site ID:	30870
Latitude:	34.081493
Longitude:	-117.908943

Regulated Programs

EI ID:	10160251	**EI Description:**	Chemical Storage Facilities
EI ID:	10160251	**EI Description:**	Hazardous Waste Generator

Affiliations

Affil Type Desc:	Identification Signer
Entity Name:	Matthew Eaton
Entity Title:	Manager Environmental Affairs
Address:	
City:	
State:	
Country:	
Zip Code:	

Phone:

Affil Type Desc: Parent Corporation
Entity Name: Ralphs Grocery Company
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Secondary Emergency Contact
Entity Name: 24-Hr Call Center
Entity Title: 24 Hour Security
Address:
City:
State:
Country:
Zip Code:
Phone: (800) 472-5747

Affil Type Desc: Legal Owner
Entity Name: Ralphs Grocery Company
Entity Title:
Address: P.O. Box 54143
City: Los Angeles
State: CA
Country: United States
Zip Code: 90054-0143
Phone: (310) 884-9000

Affil Type Desc: Primary Emergency Contact
Entity Name: Store Director
Entity Title: Director
Address:
City:
State:
Country:
Zip Code:
Phone: (714) 608-1993

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: P.O. Box 54143
City: Los Angeles
State: CA
Country:
Zip Code: 90054-0143
Phone:

Affil Type Desc: Operator
Entity Name: Ralphs Grocery Company
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (310) 884-9000

Affil Type Desc: Property Owner
Entity Name: Sterik West Covina, L.P.
Entity Title:
Address: 50 Tice Blvd
City: Woodcliff Lake
State: NJ
Country: United States

Zip Code: 07675-
Phone: (619) 431-2600

Affil Type Desc: CUPA District
Entity Name: Los Angeles County Fire
Entity Title:
Address: 5825 Rickenbacker Road
City: Commerce
State: CA
Country:
Zip Code: 90040-3027
Phone: (323) 890-4045

Affil Type Desc: Document Preparer
Entity Name: Ralphs Grocery Company
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Environmental Contact
Entity Name: Matthew Eaton
Entity Title:
Address: P.O. Box 54143
City: Los Angeles
State: CA
Country:
Zip Code: 90054-0143
Phone: (310) 884-4016

Coordinates

Env Int Type Code: HWG
Program ID: 10160251
Latitude: 34.081490
Longitude: -117.908940
Coord Name:
Ref Point Type Desc: Center of a facility or station.

Evaluations

Eval Date: 9/5/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

MIKE CARDIEL,MANAGER

Eval Date: 11/13/2017
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

Robert Puig, manager

Eval Date: 11/13/2017
Violations Found: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Robert Puig, manager

Eval Date: 9/5/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

6	3 of 3	NE	0.07 / 387.83	478.43 / 9	615 N AZUZA AVE WEST COVINA CA 91790	LA HMS

Site No: 030368
Area: 6C

--Details--
File No: 044341
File Name: FOOD 4 LESS #337
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:

7	1 of 5	ENE	0.08 / 421.10	478.38 / 9	$1 DOLLAR CLEANERS 610 N AZUSA AVE WEST COVINA CA 91792	CERS HAZ

Site ID: 55
Latitude: 34.081180
Longitude: -117.907460

Regulated Programs

EI ID: 10284667 **EI Description:** Chemical Storage Facilities

EI ID: 10284667 **EI Description:** Hazardous Waste Generator

Affiliations

Affil Type Desc: CUPA District
Entity Name: Los Angeles County Fire
Entity Title:
Address: 5825 Rickenbacker Road
City: Commerce
State: CA
Country:
Zip Code: 90040-3027

Phone:	(323) 890-4045
Affil Type Desc:	Environmental Contact
Entity Name:	AMAR ISSA
Entity Title:	
Address:	610 N. AZUSA AVE
City:	WEST COVINA
State:	CA
Country:	
Zip Code:	91791
Phone:	(626) 967-5075
Affil Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	
Address:	610 N AZUSA AVE
City:	WEST COVINA
State:	CA
Country:	
Zip Code:	91791
Phone:	
Affil Type Desc:	Identification Signer
Entity Name:	Wassim Issa
Entity Title:	owner
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Parent Corporation
Entity Name:	$1 DOLLAR CLEANERS
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	
Affil Type Desc:	Primary Emergency Contact
Entity Name:	WASSIM ISSA
Entity Title:	OPERATOR
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(626) 533-2257
Affil Type Desc:	Legal Owner
Entity Name:	WASSIM ISSA
Entity Title:	
Address:	610 N AZUSA AVE
City:	West Covina
State:	CA
Country:	United States
Zip Code:	91791
Phone:	(626) 533-2257
Affil Type Desc:	Secondary Emergency Contact
Entity Name:	AMAR ISSA
Entity Title:	OWNER
Address:	
City:	
State:	
Country:	

Zip Code:
Phone: (626) 488-1295

Affil Type Desc: Operator
Entity Name: AMAR ISSA
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (626) 533-2257

Evaluations

Eval Date: 6/24/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

Eval Date: 11/7/2017
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

S. Issa, owner

Eval Date: 6/24/2014
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 11/7/2017
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

S.Issa, owner

Violations

Violation Date: 11/7/2017
Violation Division: Los Angeles County Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Program:

HMRRP

Violation Source:

CERS

Violation Notes:

Returned to compliance on 04/13/2018. OBSERVATION: The business failed to complete and electronically submit a site map with all required content including: north orientation, loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Violations

Violation Date: 11/7/2017
Violation Division: Los Angeles County Fire Department
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Program:

HMRRP

Violation Source:

CERS

Violation Notes:

Returned to compliance on 04/13/2018. OBSERVATION: The business failed to establish and electronically submit adequate emergency response procedures for a release or threatened release of a hazardous material. CORRECTIVE ACTION: Establish and electronically submit adequate emergency response procedures for a release or threatened release of a hazardous material within 30 days.

Violation Description:

Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violations

Violation Date: 11/7/2017
Violation Division: Los Angeles County Fire Department
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Program:

HW

Violation Source:

CERS

Violation Notes:

Returned to compliance on 01/04/2018. OBSERVATION: The generator has not obtained an active EPA ID number to manage hazardous waste. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that you have obtained an EPA ID number.

Violation Description:

Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.

Violations

Violation Date: 11/7/2017

Violation Division: Los Angeles County Fire Department
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Program:

HW

Violation Source:

CERS

Violation Notes:

Returned to compliance on 04/18/2018. OBSERVATION: Uniform Hazardous Waste Manifests for used percwere not available at the time of inspection. CORRECTIVE ACTION: Locate a copy of all manifests for perc and submit copies to the CUPA.

Violation Description:

Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	2 of 5	ENE	0.08 / 421.10	478.38 / 9	ONE DOLLAR CLEANERS 610 N AZUSA AVE WEST COVINA CA 917911147	DRYCLEANERS

EPA ID:	CAR000017731	***Owner Phone:***	6265332257
Create Date:	6/19/1997	***Owner Fax:***	
Facility Act Ind:	No	***Contact Name:***	SAM ISSA
In Act Date:	6/30/2013	***Contact Street 1:***	610 N AZUSA AVE
Reason:	SIC/NAICS	***Contact Street 2:***	
County Name:	Los Angeles	***Contact City:***	WEST COVINA
Region Code:	3	***Contact State:***	CA
Owner Name:	SAM ISSA	***Contact Zip:***	917911147
Owner Street 1:	610 N AZUSA AVE	***Contact Phone:***	6269675075
Owner Street 2:		***Mail Name:***	
Owner City:	WEST COVINA	***Latitude:***	34.081442
Owner State:	CA	***Longitude:***	-117.90757
Owner Zip:	917911147		

--Details--
NAICS Code: 81232
Naics Desc: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Desc: Power Laundries, Family and Commercial

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	3 of 5	ENE	0.08 / 421.10	478.38 / 9	ONE DOLLAR MOST GARMENT DBA $1 CLEANERS 610 N AZUSA WEST COVINA CA 91791	DRYCLEANERS

EPA ID:	CAL000436588	***Owner Phone:***	6265332257
Create Date:	5/30/2018 10:29:30 AM	***Owner Fax:***	
Facility Act Ind:	Yes	***Contact Name:***	WASSIM ISSA
In Act Date:		***Contact Street 1:***	610 N AZUSA
Reason:	SIC/NAICS	***Contact Street 2:***	
County Name:	Los Angeles	***Contact City:***	WEST COVINA
Region Code:	3	***Contact State:***	CA
Owner Name:	WASSIM ISSA	***Contact Zip:***	91791
Owner Street 1:	P.O. BOX 3586	***Contact Phone:***	6269675075
Owner Street 2:		***Mail Name:***	
Owner City:	COVINA	***Latitude:***	0
Owner State:	CA	***Longitude:***	0
Owner Zip:	91722		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

--Details--

NAICS Code: 812320
Naics Desc: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Desc: Power Laundries, Family and Commercial

7	4 of 5	ENE	0.08 / 421.10	478.38 / 9	1.00 MOST GARMENT CLEANERS 610 N AZUSA AVE WEST COVINA CA 91792	EMISSIONS

2015 Toxic Data

Facility ID: 108078
Facility SIC Code: 2842
CO: 19
Air Basin: SC
District: SC
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: LA
DISN: SOUTH COAST AQMD
CHAPIS:
CERR Code:

2016 Toxic Data

Facility ID: 108078
Facility SIC Code: 2842
CERR CODE:
COID: LA
CO: 19
DISN: SOUTH COAST AQMD
CHAPIS:
TS:
HRA:
CH Index:
AH Index:
Air Basin: SC
District: SC

7	5 of 5	ENE	0.08 / 421.10	478.38 / 9	ONE DOLLAR CLEANERS 610 N AZUZA AVE WEST COVINA CA 91791	RCRA SQG

EPA Handler ID: CAR000017731
Gen Status Universe: Small Quantity Generator
Contact Name: SAM ISSA
Contact Address: 610 N AZUZA AVE, , WEST COVINA, CA, 91702, US
Contact Phone No and Ext: 818-967-5075
Contact Email:
Contact Country: US
County Name: LOS ANGELES
EPA Region: 09
Land Type:
Receive Date: 19970129

Violation/Evaluation Summary

Note: NO RECORDS: As of Aug 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19970129
Handler Name: ONE DOLLAR CLEANERS
Generator Status Universe: Small Quantity Generator
Source Type: N

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Private
Name: SAM ISSA
Date Became Current:
Date Ended Current:
Phone: 818-967-5075
Source Type: N

Street No:
Street 1: 610 N AZUZA AVE
Street 2:
City: WEST COVINA
State: CA
Country:
Zip Code: 91702

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
8	1 of 1	NE	0.11 / 582.44	481.44 / 12	Big Lots West Covina 4066 635 N AZUSA AVE WEST COVINA CA 91791	CERS HAZ

Site ID: 12250
Latitude: 34.082314
Longitude: -117.909134

Regulated Programs

EI ID: 10594165
EI Description: Hazardous Waste Generator

Affiliations

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 300 Phillipi Rd
City: Columbus
State: OH
Country:
Zip Code: 43228
Phone:

Affil Type Desc: Legal Owner
Entity Name: Big Lots
Entity Title:
Address: 300 Phillipi Rd
City: Columbus
State: OH
Country: United States
Zip Code: 43228
Phone: (614) 278-6800

Affil Type Desc:	Primary Emergency Contact
Entity Name:	Jake Stark
Entity Title:	District Team Leader
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(626) 533-8718

Affil Type Desc:	Parent Corporation
Entity Name:	Big Lots
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Affil Type Desc:	Operator
Entity Name:	Big Lots
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(614) 278-6800

Affil Type Desc:	Secondary Emergency Contact
Entity Name:	Nichole Huber
Entity Title:	Asset Protection Leader
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	(909) 420-5023

Affil Type Desc:	Environmental Contact
Entity Name:	William Boas
Entity Title:	
Address:	19331 SOLEDAD CANYON RD
City:	SANTA CLARITA
State:	CA
Country:	
Zip Code:	91351
Phone:	(916) 284-4785

Affil Type Desc:	CUPA District
Entity Name:	Los Angeles County Fire
Entity Title:	
Address:	5825 Rickenbacker Road
City:	Commerce
State:	CA
Country:	
Zip Code:	90040-3027
Phone:	(323) 890-4045

Affil Type Desc:	Document Preparer
Entity Name:	Dena Feraru
Entity Title:	
Address:	
City:	
State:	
Country:	
Zip Code:	
Phone:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Affil Type Desc: Identification Signer
Entity Name: Dena Feraru
Entity Title: Store Operations Specialist
Address:
City:
State:
Country:
Zip Code:
Phone:

Coordinates

Env Int Type Code: HWG
Program ID: 10594165
Latitude: 34.082330
Longitude: -117.909130
Coord Name:
Ref Point Type Desc: Center of a facility or station.

Evaluations

Eval Date: 5/10/2018
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

YESEL GONZALES NO SIGNIFICANT VIOLATIONS OBSERVED

Eval Date: 5/7/2015
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Los Angeles County Fire Department
Eval Program: HW
Eval Source: CERS
Eval Notes:

GLORIA RODRIGUEZ, MANAGER

9	1 of 3	SE	0.12 / 639.35	467.42 / -2	**VALET CLEANERS** **425 N AZUSA AVE** **WEST COVINA CA 917900000**	DRYCLEANERS

EPA ID: CAD981651201
Create Date: 7/3/1987
Facility Act Ind: No
In Act Date: 1/28/1995
Reason: Cleaners
County Name: Los Angeles
Region Code: 3
Owner Name: --
Owner Street 1: --
Owner Street 2:
Owner City: --
Owner State: 99
Owner Zip: --
Owner Phone: 0000000000
Owner Fax:
Contact Name: UNDELIVERABLE SURVEY 1-28-95JV
Contact Street 1: --
Contact Street 2:
Contact City: --
Contact State: 99
Contact Zip: --
Contact Phone: --
Mail Name:
Latitude: 34.078148
Longitude: -117.907772

9	2 of 3	SE	0.12 / 639.35	467.42 / -2	**HQ Cleaners** **425 N Azusa Ave** **West Covina CA 91791-1348**	DRYC GRANT

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Grant Year: 2007
Technology: Water-Based Cleaning
Phone No: 626-858-0390
Districts: South Coast AQMD
Exec Full: Young Min Lee

---

9 | **3 of 3** | **SE** | **0.12 / 639.35** | **467.42 / -2** | **H Q CLEANERS**
425 N AZUSA AVE
WEST COVINA CA 91791 | **RCRA SQG**

EPA Handler ID: CAD981651201
Gen Status Universe: Small Quantity Generator
Contact Name: KIM HYUN NAM
Contact Address: 425 N AZUSA AVE, , WEST COVINA, CA, 91791, US
Contact Phone No and Ext: 818-858-0390
Contact Email:
Contact Country: US
County Name: LOS ANGELES
EPA Region: 09
Land Type:
Receive Date: 19930106

Violation/Evaluation Summary

Note: NO RECORDS: As of Aug 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19930106
Handler Name: H Q CLEANERS
Generator Status Universe: Small Quantity Generator
Source Type: N

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Private
Name: NOT REQUIRED
Date Became Current:
Date Ended Current:
Phone: 415-555-1212
Source Type: N
Street No:
Street 1: NOT REQUIRED
Street 2:
City: NOT REQUIRED
State: ME
Country:
Zip Code: 99999

Owner/Operator Ind: Current Owner
Street No:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Type:	Private	**Street 1:**	425 N AZUSA AVE
Name:	KIM HYUN NAM	**Street 2:**	
Date Became Current:		**City:**	WEST COVINA
Date Ended Current:		**State:**	CA
Phone:	818-858-0390	**Country:**	
Source Type:	N	**Zip Code:**	91791

10	1 of 1	SE	0.12 / 645.10	468.19 / -1	434 N AZUSA AVE WEST COVINA CA 91791	LA HMS

Site No: 004881
Area: 6C

--Details--

File No: I05067
File Name: TEXACO OIL CORP
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:

File No: 005067
File Name: UNION OIL
Status Code: REM
Status Desc: Equipment Removed
Permit No: 000126333
Permit Category: T
Permit Category Desc: Underground Storage Tank
Permit Status Code: REM
Permit Status Desc: Equipment Removed
Permit Type: 1
Permit Type Desc: Underground Storage Tank Interim Permit

11	1 of 1	NNE	0.15 / 809.29	483.11 / 14	WEST COVINA GAS UP 711 AZUSA AVE N WEST COVINA CA 91791	LUST

Global ID:	T0603703350	**CUF Case:**	NO
Case Type:	LUST Cleanup Site	**Begin Date:**	1990-07-30 00:00:00
Status:	Completed - Case Closed	**How Discovered:**	Tank Closure
Status Date:	1990-10-09 00:00:00	**Stop Method:**	
RB Case No:	I-09159	**County:**	Los Angeles
LOC Case No:		**Latitude:**	34.083069
Lead Agency:	LOS ANGELES COUNTY	**Longitude:**	-117.908167
Case Worker:		**File Location:**	
Local Agency:	LOS ANGELES COUNTY		

Potential Media Of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Potential Media Affected: Soil
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:

Status History

Status:	Open - Site Assessment	**Status Date:**	1990-08-20 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Status: Completed - Case Closed **Status Date:** 1990-10-09 00:00:00

Status: Open - Case Begin Date **Status Date:** 1990-07-30 00:00:00

Activities

Action Type: Other
Action: Leak Stopped
Date: 1990-07-30 00:00:00

Action Type: Other
Action: Leak Discovery
Date: 1990-07-30 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1990-08-20 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: FARO HARIRI
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email:
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:

12	1 of 3	NNE	0.16 / 838.10	483.81 / 15	WEST COVINA GAS-UP 711 N. AZUSA AVE WEST COVINA CA 91791	HHSS

County:
Pdf File Url: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00027e84.pdf

---

12	2 of 3	NNE	0.16 / 838.10	483.81 / 15	711 N AZUSA AVE WEST COVINA CA 91791	LA HMS

Site No: 009356
Area: 6C

--Details--
File No: 009159
File Name: R F WHITE CO INC
Status Code: REM
Status Desc: Equipment Removed
Permit No: 00000143T
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

12	3 of 3	NNE	0.16 / 838.10	483.81 / 15	WEST COVINA GAS-UP 711 N. AZUSA AVE WEST COVINA CA	HIST TANK

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Owner Name:	R.F. WHITE CO., INC.	**No of Containers:**	5
Owner Street:	1401 E. ARROW HWY	**County:**	LOS ANGELES
Owner City:	UPLAND	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	91791
Owner Zip:	91786		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	1 of 1	NE	0.17 / 896.47	484.42 / 15	CVS PHARMACY #9687 702 NORTH AZUSA AVE WEST COVINA CA 91791	RCRA LQG

EPA Handler ID:	CAR000238261
Gen Status Universe:	Large Quantity Generator
Contact Name:	NICOLE WILKINSON
Contact Address:	1, CVS DR, MAIL CODE 2340, WOONSOCKET, RI, 02895, US
Contact Phone No and Ext:	401-770-7132
Contact Email:	NICOLE.WILKINSON@CVSHEALTH.COM
Contact Country:	US
County Name:	LOS ANGELES
EPA Region:	09
Land Type:	
Receive Date:	20160831

Violation/Evaluation Summary

Note:	NO VIOLATIONS: All of the compliance records associated with this facility (EPA ID) indicate NO VIOLATIONS; Compliance Monitoring and Enforcement table dated Aug, 2018.

Evaluation Details

Evaluation Start Date:	20161024
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:	
Return to Compliance Date:	
Evaluation Agency:	State

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	2
Receive Date:	20160831
Handler Name:	CVS PHARMACY #9687
Generator Status Universe:	Large Quantity Generator
Source Type:	B

Waste Code Details

Hazardous Waste Code: 122
Waste Code Description: Alkaline solution without metals (pH > 12.5)

Hazardous Waste Code: 214
Waste Code Description: Unspecified solvent mixture

Hazardous Waste Code: 311
Waste Code Description: Pharmaceutical waste

Hazardous Waste Code: 331
Waste Code Description: Off-specification, aged, or surplus organics

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Code: D007
Waste Code Description: CHROMIUM

Hazardous Waste Code: D009
Waste Code Description: MERCURY

Hazardous Waste Code: D010
Waste Code Description: SELENIUM

Hazardous Waste Code: D024
Waste Code Description: M-CRESOL

Hazardous Waste Code: P001
Waste Code Description: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Hazardous Waste Code: P075
Waste Code Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Hazardous Waste Code: U002
Waste Code Description: 2-PROPANONE (I) (OR) ACETONE (I)

Hazardous Waste Code: U129
Waste Code Description: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

Hazardous Waste Code: U205
Waste Code Description: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20140325
Handler Name: CVS PHARMACY #9687
Generator Status Universe: Large Quantity Generator
Source Type: B

Waste Code Details

Hazardous Waste Code: 122
Waste Code Description: Alkaline solution without metals (pH > 12.5)

Hazardous Waste Code: 123
Waste Code Description: Unspecified alkaline solution

Hazardous Waste Code:	131
Waste Code Description:	Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)
Hazardous Waste Code:	134
Waste Code Description:	Aqueous solution with <10% total organic residues
Hazardous Waste Code:	141
Waste Code Description:	Off-specification, aged, or surplus inorganics
Hazardous Waste Code:	181
Waste Code Description:	Other inorganic solid waste
Hazardous Waste Code:	214
Waste Code Description:	Unspecified solvent mixture
Hazardous Waste Code:	311
Waste Code Description:	Pharmaceutical waste
Hazardous Waste Code:	331
Waste Code Description:	Off-specification, aged, or surplus organics
Hazardous Waste Code:	352
Waste Code Description:	Other organic solids
Hazardous Waste Code:	541
Waste Code Description:	Photochemicals / photo processing waste
Hazardous Waste Code:	561
Waste Code Description:	Detergent and soap
Hazardous Waste Code:	791
Waste Code Description:	Liquids with pH < 2
Hazardous Waste Code:	D001
Waste Code Description:	IGNITABLE WASTE
Hazardous Waste Code:	D002
Waste Code Description:	CORROSIVE WASTE
Hazardous Waste Code:	D004
Waste Code Description:	ARSENIC
Hazardous Waste Code:	D005
Waste Code Description:	BARIUM
Hazardous Waste Code:	D006
Waste Code Description:	CADMIUM
Hazardous Waste Code:	D007
Waste Code Description:	CHROMIUM
Hazardous Waste Code:	D008
Waste Code Description:	LEAD
Hazardous Waste Code:	D009
Waste Code Description:	MERCURY
Hazardous Waste Code:	D010
Waste Code Description:	SELENIUM
Hazardous Waste Code:	D011
Waste Code Description:	SILVER
Hazardous Waste Code:	D016
Waste Code Description:	2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
Hazardous Waste Code:	D018
Waste Code Description:	BENZENE

Hazardous Waste Code: D024
Waste Code Description: M-CRESOL

Hazardous Waste Code: D027
Waste Code Description: 1,4-DICHLOROBENZENE

Hazardous Waste Code: D035
Waste Code Description: METHYL ETHYL KETONE

Hazardous Waste Code: D039
Waste Code Description: TETRACHLOROETHYLENE

Hazardous Waste Code: P001
Waste Code Description: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Hazardous Waste Code: P012
Waste Code Description: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

Hazardous Waste Code: P075
Waste Code Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Hazardous Waste Code: P081
Waste Code Description: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

Hazardous Waste Code: P188
Waste Code Description: BENZOIC ACID, 2-HYDROXY-, COMPD. WITH (3AS-CIS)-1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYLPYRROLO[2,3-B]INDOL-5-YL METHYLCARBAMATE ESTER (1:1) (OR) PHYSOSTIGMINE SALICYLATE

Hazardous Waste Code: U002
Waste Code Description: 2-PROPANONE (I) (OR) ACETONE (I)

Hazardous Waste Code: U010
Waste Code Description: AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-METHOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C

Hazardous Waste Code: U031
Waste Code Description: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

Hazardous Waste Code: U034
Waste Code Description: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

Hazardous Waste Code: U035
Waste Code Description: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

Hazardous Waste Code: U044
Waste Code Description: CHLOROFORM (OR) METHANE, TRICHLORO-

Hazardous Waste Code: U058
Waste Code Description: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

Hazardous Waste Code: U059
Waste Code Description: 5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-2,3,6-TRIDEOXY)-ALPHA-L-LYXO-HEXOPYRANOSYL)OXY]-7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8S-CIS)- (OR) DAUNOMYCIN

Hazardous Waste Code: U070
Waste Code Description: BENZENE, 1,2-DICHLORO- (OR) O-DICHLOROBENZENE

Hazardous Waste Code: U072
Waste Code Description: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

Hazardous Waste Code: U089
Waste Code Description: DIETHYLSTILBESTEROL (OR) PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS, (E)-

Hazardous Waste Code: U122
Waste Code Description: FORMALDEHYDE

Hazardous Waste Code: U129
Waste Code Description: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

Hazardous Waste Code: U132
Waste Code Description: HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

Hazardous Waste Code: U150
Waste Code Description: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

Hazardous Waste Code: U151
Waste Code Description: MERCURY

Hazardous Waste Code: U154
Waste Code Description: METHANOL (I) (OR) METHYL ALCOHOL (I)

Hazardous Waste Code: U165
Waste Code Description: NAPHTHALENE

Hazardous Waste Code: U188
Waste Code Description: PHENOL

Hazardous Waste Code: U200
Waste Code Description: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-

Hazardous Waste Code: U201
Waste Code Description: 1,3-BENZENEDIOL (OR) RESORCINOL

Hazardous Waste Code: U204
Waste Code Description: SELENIOUS ACID (OR) SELENIUM DIOXIDE

Hazardous Waste Code: U205
Waste Code Description: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

Hazardous Waste Code: U206
Waste Code Description: D-GLUCOSE, 2-DEOXY-2-[[(METHYLNITROSOAMINO)-CARBONYL]AMINO]- (OR) GLUCOPYRANOSE, 2-DEOXY-2-(3-METHYL-3-NITROSOUREIDO)-,D- (OR) STREPTOZOTOCIN

Hazardous Waste Code: U210
Waste Code Description: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

Hazardous Waste Code: U279
Waste Code Description: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Hazardous Waste Code: U411
Waste Code Description: PHENOL, 2-(1-METHYLETHOXY)-, METHYLCARBAMATE (OR) PROPOXUR

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20130327
Handler Name: CVS PHARMACY NO 9687
Generator Status Universe: Large Quantity Generator
Source Type: N

Waste Code Details

Hazardous Waste Code: D001
Waste Code Description: IGNITABLE WASTE

Hazardous Waste Code: D002
Waste Code Description: CORROSIVE WASTE

Hazardous Waste Code: D009
Waste Code Description: MERCURY

Hazardous Waste Code: P001
Waste Code Description: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Hazardous Waste Code: P042
Waste Code Description: 1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE

Hazardous Waste Code: P075
Waste Code Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Hazardous Waste Code: P081
Waste Code Description: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	GARFIELD BEACH CVS LLC	***Street 2:***	
Date Became Current:	20060602	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	US
Source Type:	N	***Zip Code:***	

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	GARFIELD BEACH CVS LLC	***Street 2:***	
Date Became Current:	20060602	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	
Source Type:	B	***Zip Code:***	

Owner/Operator Ind:	Current Owner	***Street No:***	670
Type:	Private	***Street 1:***	WEST 17TH ST SUITE C-4
Name:	DL EQUITY INVESTMENTS LLC	***Street 2:***	
Date Became Current:	20000530	***City:***	COSTA MESA
Date Ended Current:		***State:***	CA
Phone:	949-574-7350	***Country:***	
Source Type:	B	***Zip Code:***	92627

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	
Name:	GARFIELD BEACH CVS, L.L.C.	***Street 2:***	
Date Became Current:	20060602	***City:***	
Date Ended Current:		***State:***	
Phone:		***Country:***	
Source Type:	B	***Zip Code:***	

Owner/Operator Ind:	Current Owner	***Street No:***	670
Type:	Private	***Street 1:***	W 17TH ST STE C-4
Name:	DL EQUITY INVESTMENTS 1 LLC	***Street 2:***	
Date Became Current:	20000530	***City:***	COSTA MESA
Date Ended Current:		***State:***	CA
Phone:	949-574-7350	***Country:***	US
Source Type:	B	***Zip Code:***	92627

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	670 W 17TH ST
Name:	DL EQUITY INVESTMENTS 1 LLC	***Street 2:***	STE C4
Date Became Current:	20000530	***City:***	COSTA MESA
Date Ended Current:		***State:***	CA
Phone:	949-574-7350	***Country:***	US
Source Type:	N	***Zip Code:***	92627

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
14	1 of 1	SSE	0.17 / 910.46	465.42 / -4	RED LOBSTER RESTAURANT #526 381 N AZUSA AVE WEST COVINA CA 91791	EMISSIONS

1990 Criteria Data

Facility ID:	68566	**CERR Code:**	
Facility SIC Code:	5812	**TOGT:**	.1
CO:	19	**ROGT:**	.04223
Air Basin:	SC	**COT:**	
District:	SC	**NOXT:**	
COID:	LA	**SOXT:**	
DISN:	SOUTH COAST AQMD	**PMT:**	.2
CHAPIS:		**PM10T:**	.19

1990 Toxic Data

Facility ID:	68566	**COID:**	LA
Facility SIC Code:	5812	**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:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
15	1 of 1	NE	0.19 / 978.79	485.42 / 16	ALL AMERICAN RENT-A-CAR 702 AZUSA AVE N WEST COVINA CA 91791	LUST

Global ID:	T0603704422	**CUF Case:**	NO
Case Type:	LUST Cleanup Site	**Begin Date:**	1992-02-27 00:00:00
Status:	Completed - Case Closed	**How Discovered:**	Tank Closure
Status Date:	1996-09-16 00:00:00	**Stop Method:**	
RB Case No:	I-16597	**County:**	Los Angeles
LOC Case No:		**Latitude:**	34.083137
Lead Agency:	LOS ANGELES RWQCB (REGION 4)	**Longitude:**	-117.907109
Case Worker:	YR	**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 - Upper San Gabriel (405.20)		
DWR Groundwater Subbasin Name:	San Gabriel Valley (4-013)		
Site History:			

Status History

Status:	Completed - Case Closed	**Status Date:**	1996-09-16 00:00:00
Status:	Open - Case Begin Date	**Status Date:**	1992-02-27 00:00:00
Status:	Open - Site Assessment	**Status Date:**	1992-03-30 00:00:00

Activities

Action Type:	Other

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action: Leak Discovery
Date: 1992-02-27 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1992-03-30 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: 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:

---

16 | **1 of 1** | **NE** | **0.19 / 995.85** | **485.57 / 16** | **702 N AZUSA AVE**
WEST COVINA CA 91790 | **LA HMS**

Site No: 004928
Area: 6C

--Details--
File No: I05114
File Name: MOBIL OIL CORP
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:

File No: 016597
File Name: ALL AMERICAN RENT-A-CAR
Status Code: REM
Status Desc: Equipment Removed
Permit No: 00006200T
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

---

17 | **1 of 1** | **SE** | **0.23 / 1,196.31** | **469.51 / 0** | **ARCO PRODUCTS #01276**
300 N AZUSA AVE
WEST COVINA CA 91791 | **DELISTED TNK**

Facility ID: 5113
County: Los Angeles
Permitting Agency: LOS ANGELES COUNTY
Original Source: UST
Record Date: 30-JAN-2017
Latitude: 34.0771153
Longitude: -117.9060184

---

18 | **1 of 1** | **SE** | **0.23 / 1,197.64** | **466.43 / -3** | **TOSCO/UNOCAL #30670**
245 N AZUSA AVE | **DELISTED TNK**

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
					WEST COVINA CA 91791	

Facility ID: 24646
County: Los Angeles
Permitting Agency: LOS ANGELES COUNTY
Original Source: UST
Record Date: 30-JAN-2017
Latitude: 34.076544
Longitude: -117.906787

---

19 | 1 of 2 | SSE | 0.26 / 1,368.14 | 463.43 / -6 | ARCO #1276
300 NORTH AZUSA AVENUE
WEST COVINA CA 91790 | LUST

Global ID: T0603724238
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 2010-10-18 00:00:00
RB Case No:
LOC Case No: 004927-005113
Lead Agency: LOS ANGELES COUNTY
Case Worker: KBR
Local Agency: LOS ANGELES COUNTY
Potential Media Of Concern: Gasoline
Potential Media Affected: Under Investigation
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:
CUF Case: NO
Begin Date: 2000-11-21 00:00:00
How Discovered: Tank Closure
Stop Method: Close and Remove Tank
County: Los Angeles
Latitude: 34.075781
Longitude: -117.907323
File Location: Local Agency

Status History

Status:	Status Date:
Open - Site Assessment	2005-02-24 00:00:00
Open - Case Begin Date	2000-11-21 00:00:00
Completed - Case Closed	2010-10-18 00:00:00

Activities

Action Type: Other
Action: Leak Discovery
Date: 2000-11-21 00:00:00

Action Type: Other
Action: Leak Reported
Date: 2001-01-09 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: KATTYA BATRES RINZE
Organization Name: LOS ANGELES COUNTY
Address: 900 SOUTH FREMONT AVE
City: ALHAMBRA
Email: gbatres@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:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
19	2 of 2	SSE	0.26 / 1,368.14	463.43 / -6	ARCO #1276 300 AZUSA AVE N WEST COVINA CA 91791	LUST

Global ID: T0603703037
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1992-02-13 00:00:00
RB Case No: I-05113
LOC Case No:
Lead Agency: LOS ANGELES COUNTY
Case Worker: JOA
Local Agency: LOS ANGELES COUNTY
CUF Case: YES
Begin Date: 1991-01-10 00:00:00
How Discovered: Tank Closure
Stop Method:
County: Los Angeles
Latitude: 34.075781
Longitude: -117.907322
File Location:
Potential Media Of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Potential Media Affected: Soil
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:

Status History

Status: Open - Case Begin Date
Status Date: 1991-01-10 00:00:00

Status: Completed - Case Closed
Status Date: 1992-02-13 00:00:00

Activities

Action Type: Other
Action: Leak Discovery
Date: 1991-01-10 00:00:00

Action Type: Other
Action: Leak Stopped
Date: 1991-01-10 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1991-02-14 00:00:00

Contacts

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:

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

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
20	1 of 1	SSE	0.33 / 1,757.39	458.46 / -11	UNOCAL #4550 245 AZUSA AVE N WEST COVINA CA 91791	LUST

Global ID: T0603703737
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1996-03-13 00:00:00
RB Case No: I-11098
LOC Case No:
CUF Case: NO
Begin Date: 1994-09-08 00:00:00
How Discovered: Other Means
Stop Method:
County: Los Angeles
Latitude: 34.0745336

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES COUNTY
Potential Media Of Concern: Diesel
Potential Media Affected: Soil
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:
Longitude: -117.9078719
File Location:

Status History

Status:	Status Date:
Open - Case Begin Date	1994-09-08 00:00:00
Open - Verification Monitoring	1995-06-07 00:00:00
Completed - Case Closed	1996-03-13 00:00:00

Activities

Action Type: Other
Action: Leak Discovery
Date: 1994-09-08 00:00:00

Action Type: Other
Action: Leak Stopped
Date: 1994-09-08 00:00:00

Action Type: Other
Action: Leak Reported
Date: 1994-09-16 00:00:00

Contacts

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:

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

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
21	1 of 1	SSE	0.39 / 2,061.30	456.43 / -13	LA PUENTE DUMP 147 NORTH AZUZA AVENUE LA PUENTE CA 91744	ENVIROSTOR

Estor/EPA ID: 19490192
Site Code:
Special Program:
Census Tract: 6037405600
Permit Renew Lead:
Project Manager:
Pub Particip Spec:
Supervisor:
Site Type: * HISTORICAL
Cleanup Status: REFER: OTHER AGENCY AS OF 8/15/1995
Clean Up Oversight Agency: NONE SPECIFIED
Cause of Contamination: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
School District:
County: LOS ANGELES
Latitude: 34.0736949
Longitude: -117.9077994
Office: CLEANUP CHATSWORTH
Nat Priority List: NO
Funding:
Assembly District:
Senate District:

APN: NONE SPECIFIED
Acres: NONE SPECIFIED
Potential Contaminants:

UNCATEGORIZED

Site History:

Program Type: HISTORICAL
Status: REFER: OTHER AGENCY
Cal Enviro Score: 46-50%
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=19490192

Completed Activities

Date Completed: 8/21/1991
Area Name:
Sub Area:
Title: Site Screening
Area Link:
Sub Area Link:
Title Link:
Document Type: Site Screening
Comments: EPA Federal Investigation Team report reviewed. DTSC concurs with the EPA further action recommendation.

Date Completed: 12/21/1988
Area Name:
Sub Area:
Title: Site Screening
Area Link:
Sub Area Link:
Title Link:
Document Type: Site Screening
Comments: Site Screening done: EPA E&E review of Preliminary Assess- ment completed by DHS in September 1988 recommends medium- priority Screening Site Inspection under Cercla due to high value for depth to aquifer, containment, and waste quantity. DHS agrees with this recommendation. Sample Results: Solid Waste Assessment Report by Klein- felder found TCE at 9.0 ppb and 11.0 ppb in two groundwater monitoring wells.

Date Completed: 12/2/1987
Area Name:
Sub Area:
Title: Site Screening
Area Link:
Sub Area Link:
Title Link:
Document Type: Site Screening
Comments: SITE SCREENING DONE SITE IS ON THE SWAT LIST- RANK 13- TO BE ASSESSED IN 1988

Date Completed: 4/1/1984
Area Name:
Sub Area:
Title: Preliminary Assessment Report
Area Link:
Sub Area Link:
Title Link:
Document Type: Preliminary Assessment Report
Comments: SOURCE ACT: CO ENGR IWP - CLII LDFL. CURRENTLY USED AS GOLF COURSE & OTHER RECREATIONAL FAC. OVERLIES A PORTION OF SAN GABRIEL G-WATER BASIN. INCIDENT: 4/ 23/84 SULPHUR & METHANE ODOR COMPLAINT FROM RESIDENT(CO ENGR FILE). WASTE TYPE: CERCLA FILED BY IT CORP - OIL REFINERY & OIL PRODUCTION WASTES DISP. CONDNGR, CO HLTH, SWMB. PRELIM ASSESS DONE RCRA 3012

Date Completed: 9/28/1983
Area Name:
Sub Area:
Title: Discovery
Area Link:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Sub Area Link:
Title Link:
Document Type: * Discovery
Comments: FACILITY IDENTIFIED ID FROM ERRIS

---

22 | 1 of 1 | NNE | 0.40 / 2,105.46 | 492.26 / 23 | MOBIL #11-MHY
107 AZUSA AVE N
COVINA CA 91722 | LUST

Global ID: T0603703397
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1996-08-13 00:00:00
RB Case No: I-09376
LOC Case No:
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
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 - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:

CUF Case: NO
Begin Date: 1990-05-24 00:00:00
How Discovered:
Stop Method:
County: Los Angeles
Latitude: 34.086697
Longitude: -117.908142
File Location:

Status History

Status:	Open - Case Begin Date	**Status Date:**	1990-05-24 00:00:00
Status:	Completed - Case Closed	**Status Date:**	1996-08-13 00:00:00
Status:	Open - Site Assessment	**Status Date:**	1991-02-18 00:00:00

Activities

Action Type: Other
Action: Leak Reported
Date: 1991-02-18 00:00:00

Action Type: Other
Action: Leak Discovery
Date: 1990-05-24 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		

---

23 | 1 of 3 | WNW | 0.42 / 2,241.82 | 451.44 / -18 | HONEYWELL INC
--
WEST COVINA CA 917900000 | ENVIROSTOR

Estor/EPA ID: CAD008351827
Site Code: 300473
County: LOS ANGELES
Latitude: 34.083677

Special Program:		**Longitude:**	-117.917728
Census Tract:	6037405600	**Office:**	
Permit Renew Lead:		**Nat Priority List:**	
Project Manager:		**Funding:**	
Pub Particip Spec:		**Assembly District:**	48
Supervisor:		**Senate District:**	22
Site Type:	CLOSED		
Cleanup Status:			
Clean Up Oversight Agency:			
Cause of Contamination:			
Potential Media Affected:			
School District:			
APN:			
Acres:			
Potential Contaminants:			

Site History:

Update 6/29/07 - An RFA is a backlog project for this facility. The property owner was listed as Bank of America. Facility files are in the Glendale DTSC office. The new project manager will need to have files sent to the Sacramento office and conduct Preliminary Review. EPA RCRA Info website says the property is located at 1200 East San Bernardino Road, West Covina, CA 91790, however, Los Angeles County Assessor wasn't able to match this address. The closest match was AIN 8434-016-035 at 1220 W San Bernardino, Covina, CA, 91722. RCRA Info states the NAICS Code is 335999 with the description: All other miscellaneous electrical equipment and component manufacturing. Early web searches show that in the 1980s, Honeywell Marine Systems Division in West Covina designed/built submarine sonars and missiles. In 1989, Hughes Aircraft bought Honeywell. Raytheon later aquired/bought Hughes.

Update 1/25/08 - The facility was located at 1200 East San Bernardino Drive, West Covina, California 91790 in Los Angeles County. The Facility was owned and operated by Honeywell, Inc - Training and Control Systems Division (from 1963 to 1988), Hughes Rediffusion Simulation, Inc (estimated early 1989), Hughes Simulation Systems, Inc (from 1989 to 1991), and Hughes Training, Inc (HTI) (from 1991 to 1994).

These companies engaged in the manufacture and assembly of flight simulators and electronic components, which generated wastes which were not treated but stored and sent off-site to permitted facilities for recycling, treatment, or disposal.

From 1981 to 1993 there was one hazardous waste management unit, the Hazardous Waste Storage Area (HWSA), located at the HTI facility. The HWSA was not operated by Honeywell. All wastes generated at the HWSA were analyzed and characterized according to hazard class and type, and disposed of according to local, state, and federal regulatory guidelines. The types and quantities of hazardous wastes that were stored at the HWSA included the following: solvents, machine oils and hydraulic oils, waste paints, polychlorinated biphenyl-containing light ballasts, spent batteries, acids, adhesives, and empty containers.

HTI submitted a closure report for the HWSA on November 22-23, 1994 to DTSC. On November 23, 1994, DTSC determined the closure report met the requirements of the November 18, 1994 amended HWSA closure plan, and consequently decided the HWSA (and thus, the facility) was clean closed. Closure of the HWSA was also considered as closure of the property because DTSC's concerns encompassed the entire facility.

Currently, the site is not managing hazardous waste and has been converted to a place of worship, listed as Faith Community Church at both 1200 East San Bernardino Road and 1211 East Badillo Street (the latter address being associated with Los Angeles County Office of the Assessor, Assessor's Identification Number: 8434-015-018). The owner of parcel 18 was Bank of America prior to 1984, St Francis Hospital in 1984, Honeywell Inc in 1986, Rediffusion Simulation Inc in 1989, and Faith Community Church of West Covina starting in 1994.

Program Type:	HAZ WASTE
Status:	CLOSED
Cal Enviro Score:	46-50%
Summary Link:	http://www.envirostor.dtsc.ca.gov/public/hwmp_profile_report?global_id=CAD008351827

Permit Units - Completed Activities

Date:	
Unit:	NO PERMIT ACTIVITIES HAVE BEEN COMPLETED FOR THIS SITE
Event Description:	
Doc Link:	

Units Undergoing Closure

Unit:	MULTIPLE UNITS: CONTAIN1, CONTAIN2, CONTAIN3, CONTAIN4, CONTAIN5, CONTAIN6, CONTAIN7, TANKTRT1, TANKTRT2, TANKTRT3
Date:	11/23/1994
Event Description:	CLOSURE FINAL - ISSUE CLOSURE VERIFICATION
Doc Link:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Unit: MULTIPLE UNITS: CONTAIN1, CONTAIN2, CONTAIN3, CONTAIN4, CONTAIN5, CONTAIN6, CONTAIN7, TANKTRT1, TANKTRT2, TANKTRT3
Date: 11/23/1994
Event Description: CLOSURE FINAL - RECEIVE CLOSURE CERTIFICATION
Doc Link:

23	2 of 3	WNW	0.42 / 2,241.82	451.44 / -18	HONEYWELL INC -- WEST COVINA CA 917900000	ENVIROSTOR

Estor/EPA ID: 80001565
Site Code: 300473
Special Program:
Census Tract: 6037405600
Permit Renew Lead:
Project Manager:
Pub Particip Spec:
Supervisor: * PAULINE BATARSEH
County: LOS ANGELES
Latitude: 34.083677
Longitude: -117.917728
Office: CLEANUP SACRAMENTO
Nat Priority List: NO
Funding:
Assembly District: 48
Senate District: 22
Site Type: CORRECTIVE ACTION
Cleanup Status: NO FURTHER ACTION AS OF 9/3/2009
Clean Up Oversight Agency: DTSC - SITE CLEANUP PROGRAM
Cause of Contamination: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED
School District:
APN: NONE SPECIFIED
Acres: 0 ACRES
Potential Contaminants:

NONE SPECIFIED

Site History:

Update 6/29/07 - An RFA is a backlog project for this facility. The property owner was listed as Bank of America. Facility files are in the Glendale DTSC office. The new project manager will need to have files sent to the Sacramento office and conduct Preliminary Review. EPA RCRA Info website says the property is located at 1200 East San Bernardino Road, West Covina, CA 91790, however, Los Angeles County Assessor wasn't able to match this address. The closest match was AIN 8434-016-035 at 1220 W San Bernardino, Covina, CA, 91722. RCRA Info states the NAICS Code is 335999 with the description: All other miscellaneous electrical equipment and component manufacturing. Early web searches show that in the 1980s, Honeywell Marine Systems Division in West Covina designed/built submarine sonars and missiles. In 1989, Hughes Aircraft bought Honeywell. Raytheon later aquired/bought Hughes.

Update 1/25/08 - The facility was located at 1200 East San Bernardino Drive, West Covina, California 91790 in Los Angeles County. The Facility was owned and operated by Honeywell, Inc - Training and Control Systems Division (from 1963 to 1988), Hughes Rediffusion Simulation, Inc (estimated early 1989), Hughes Simulation Systems, Inc (from 1989 to 1991), and Hughes Training, Inc (HTI) (from 1991 to 1994).

These companies engaged in the manufacture and assembly of flight simulators and electronic components, which generated wastes which were not treated but stored and sent off-site to permitted facilities for recycling, treatment, or disposal.

From 1981 to 1993 there was one hazardous waste management unit, the Hazardous Waste Storage Area (HWSA), located at the HTI facility. The HWSA was not operated by Honeywell. All wastes generated at the HWSA were analyzed and characterized according to hazard class and type, and disposed of according to local, state, and federal regulatory guidelines. The types and quantities of hazardous wastes that were stored at the HWSA included the following: solvents, machine oils and hydraulic oils, waste paints, polychlorinated biphenyl-containing light ballasts, spent batteries, acids, adhesives, and empty containers.

HTI submitted a closure report for the HWSA on November 22-23, 1994 to DTSC. On November 23, 1994, DTSC determined the closure report met the requirements of the November 18, 1994 amended HWSA closure plan, and consequently decided the HWSA (and thus, the facility) was clean closed. Closure of the HWSA was also considered as closure of the property because DTSC's concerns encompassed the entire facility.

Currently, the site is not managing hazardous waste and has been converted to a place of worship, listed as Faith Community Church at both 1200 East San Bernardino Road and 1211 East Badillo Street (the latter address being associated with Los Angeles County Office of the Assessor, Assessor's Identification Number: 8434-015-018). The owner of parcel 18 was Bank of America prior to 1984, St Francis Hospital in 1984, Honeywell Inc in 1986, Rediffusion Simulation Inc in 1989, and Faith Community Church of West Covina starting in 1994.

Program Type: CORRECTIVE ACTION
Status: NO FURTHER ACTION
Cal Enviro Score: 46-50%
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001565

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Completed Activities

Date Completed: 7/18/1991
Area Name:
Sub Area:
Title: Voluntary C A
Area Link:
Sub Area Link:
Title Link:
Document Type: Consent Order
Comments:

Date Completed: 6/26/2008
Area Name:
Sub Area:
Title: CA PROCESS IS TERMINATED-NO FURTHER ACTION (CA999NF)
Area Link:
Sub Area Link:
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001565&enforcement_id=6015879
Document Type: * CA Process is Terminated
Comments: RFA showed no further action necessary.
cs 7/10/08

1211 East Badillo St. - new
1200 East San Bernardino Road - Old

Date Completed: 6/26/2008
Area Name:
Sub Area:
Title: DETERMINATION OF NEED FOR A RFI-RFI IS NOT NECESSARY (CA070NO)
Area Link:
Sub Area Link:
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001565&enforcement_id=6016399
Document Type: RCRA Facility Assessment Report
Comments: No futher aciton.
cs 7/10/08

Date Completed: 6/26/2008
Area Name:
Sub Area:
Title: RFA COMPLETED (CA050)
Area Link:
Sub Area Link:
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001565&enforcement_id=6015878
Document Type: RCRA Facility Assessment Report
Comments: RFA no further action neccessary.
cs 7/10/08

23	3 of 3	WNW	0.42 / 2,241.82	451.44 / -18	HONEYWELL INC -- WEST COVINA CA 917900000	HWP

EPA ID: CAD008351827
Site Code: 300473
Status: CLOSED
Facility Type: Historical - Non-Operating
Facility Size:
Team:
Project Manager:

Public Part Speci:
Public Info Officer:
Assembly District: 48
Senate District: 22
County: LOS ANGELES
Latitude: 34.083677
Longitude: -117.917728

Hazardous Waste Units Undergoing Closure

Completed Date: 11/23/1994
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Unit Names: CONTAIN1, CONTAIN2, CONTAIN3, CONTAIN4, CONTAIN5, CONTAIN6, CONTAIN7, TANKTRT1, TANKTRT2, TANKTRT3

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Completed Date: 11/23/1994
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Unit Names: CONTAIN1, CONTAIN2, CONTAIN3, CONTAIN4, CONTAIN5, CONTAIN6, CONTAIN7, TANKTRT1, TANKTRT2, TANKTRT3

Alias

Alias: 300473
Alias Type: Project Code (Site Code)

---

24 | ***1 of 1*** | ***ENE*** | ***0.49 / 2,589.81*** | ***509.61 / 40*** | ***Couch Family Trust Residence***
220 Houser Dr S
Covina CA 91722 | ***LUST***

Global ID: T10000004628
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 2014-02-27 00:00:00
RB Case No: R-56680
LOC Case No:
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: GK
Local Agency: LOS ANGELES COUNTY
CUF Case: NO
Begin Date: 2012-05-14 00:00:00
How Discovered: Tank Closure
Stop Method: Close and Remove Tank
County: Los Angeles
Latitude: 34.084758
Longitude: -117.901769
File Location: Local Agency
Potential Media Of Concern: Benzene, Ethylbenzene, Gasoline, Toluene, Xylene
Potential Media Affected: Soil
How Discovered Description:
Stop Description:
Cal Water Watershed Name: San Gabriel River - Upper San Gabriel (405.20)
DWR Groundwater Subbasin Name: San Gabriel Valley (4-013)
Site History:

Status History

Status:	Open - Case Begin Date	***Status Date:***	2012-05-14 00:00:00
Status:	Open - Site Assessment	***Status Date:***	2013-02-28 00:00:00
Status:	Open - Eligible for Closure	***Status Date:***	2013-07-01 00:00:00
Status:	Completed - Case Closed	***Status Date:***	2014-02-27 00:00:00

Activities

Action Type: ENFORCEMENT
Action: Referral to Regional Board
Date: 2013-02-28 00:00:00

Action Type: ENFORCEMENT
Action: Staff Letter
Date: 2013-04-04 00:00:00

Action Type: ENFORCEMENT
Action: Notification - Preclosure
Date: 2013-12-16 00:00:00

Action Type: Other
Action: Leak Stopped
Date: 2012-05-14 00:00:00

Action Type: RESPONSE
Action: Other Report / Document
Date: 2013-06-03 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Type: Other
Action: Leak Discovery
Date: 2012-05-14 00:00:00

Action Type: Other
Action: Leak Reported
Date: 2013-02-28 00:00:00

Action Type: ENFORCEMENT
Action: Closure/No Further Action Letter
Date: 2014-02-27 00:00:00

Contacts

Contact Type: Local Agency Caseworker
Contact Name: KATTYA BATRES RINZE
Organization Name: LOS ANGELES COUNTY
Address: 900 SOUTH FREMONT AVE
City: ALHAMBRA
Email: gbatres@dpw.lacounty.gov
Phone No:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
25	1 of 1	NNW	0.56 / 2,935.36	471.42 / 2	HUGHES TRAINING INC 1200 E SAN BERNARDINO RD WEST COVINA CA 91791-1098	RCRA CORRACTS

EPA Handler ID: CAD008351827
Gen Status Universe: No Report
Contact Name:
Contact Address: US
Contact Phone No and Ext:
Contact Email:
Contact Country: US
County Name: LOS ANGELES
EPA Region: 09
Land Type:
Receive Date:

Event/Area Details

Area Name: ENTIRE FACILITY
Event Code: CA050
Corrective Action Event Descri: RFA COMPLETED
Actual Date of Event: 20080626
Orig Sched Event Date: 20080626
New Sched Event Date:
Best Date: 20080626
Groundwater Release Indicator: Yes
Soil Release Indicator: Yes
Air Release Indicator: Yes
Surface Waste Release Ind: Yes
Event Responsible Agency: State

Area Name: ENTIRE FACILITY
Event Code: CA070NO
Corrective Action Event Descri: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY
Actual Date of Event: 20080626
Orig Sched Event Date: 20080626
New Sched Event Date:
Best Date: 20080626
Groundwater Release Indicator: Yes
Soil Release Indicator: Yes
Air Release Indicator: Yes
Surface Waste Release Ind: Yes
Event Responsible Agency: State

Area Name: ENTIRE FACILITY
Event Code: CA999NF
Corrective Action Event Descri: CA PROCESS IS TERMINATED-NO FURTHER ACTION

Actual Date of Event:	20080626
Orig Sched Event Date:	20080626
New Sched Event Date:	
Best Date:	20080626
Groundwater Release Indicator:	Yes
Soil Release Indicator:	Yes
Air Release Indicator:	Yes
Surface Waste Release Ind:	Yes
Event Responsible Agency:	State

Violation/Evaluation Summary

Note:	NO VIOLATIONS: All of the compliance records associated with this facility (EPA ID) indicate NO VIOLATIONS; Compliance Monitoring and Enforcement table dated Aug, 2018.

Evaluation Details

Evaluation Start Date:	19941110
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Violation Short Description:	
Return to Compliance Date:	
Evaluation Agency:	State

Evaluation Start Date:	19921019
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation Short Description:	
Return to Compliance Date:	
Evaluation Agency:	State Contractor/Grantee

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19920304
Handler Name:	HUGHES TRAINING, INC.
Generator Status Universe:	No Report
Source Type:	R

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19910731
Handler Name:	HUGHES TRAINING INC
Generator Status Universe:	No Report
Source Type:	I

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	19910725
Handler Name:	HUGHES TRAINING INC
Generator Status Universe:	No Report
Source Type:	N

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	1200 E SAN BERNARDINO RD
Name:	HUGHES TRAINING INC	***Street 2:***	
Date Became Current:		***City:***	WEST COVINA
Date Ended Current:		***State:***	CA
Phone:	818-915-9530	***Country:***	
Source Type:	N	***Zip Code:***	91791-1098

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Private	***Street 1:***	1200 E SAN BERNARDINO RD
Name:	HUGHES TRAINING INC	***Street 2:***	
Date Became Current:		***City:***	WEST COVINA
Date Ended Current:		***State:***	CA
Phone:	818-915-9530	***Country:***	
Source Type:	I	***Zip Code:***	91790-1098

Unplottable Summary

Total: 9 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
CERCLIS	NAVAL OCEAN SYSTEMS CENTER	HWY 39	AZUSA CA	91702	805415880
DELISTED COUNTY	NAVAL COMMAND CONTROL OCEAN	0000 N STATE HWY 39, 4.5NE AZU	AZUSA CA	91702	820048644
HAZNET	1X COVINA-VALLEY UNIFIED SCHOOL DISTRICT	ROWLAND GRAMMAR SCHOOL	WEST COVINA CA	000000000	826390294
HHSS	BALDWIN PARK MOVING CENTER	? PUENTE AVE	BALDWIN PARK CA	91706	822945427
HIST MANIFEST		ROWLAND GRAMMAR SCHOOL	WEST COVINA CA	0	827532184
RCRA SQG	UNIVERSAL MOTION COMPONENTS	17788 ROWLAND ST	LA PUENTE CA	91748	810722689
RCRA SQG	USNAVY NAVAL OCEAN SYSTEMS CENTER	HIGHWAY 39	AZUSA CA	91702	810723217
RCRA SQG	SHELL SERVICE STATION	422 AZUSA S A P 135067	AZUSA CA	91702	810609556
SEMS	NAVAL OCEAN SYSTEMS CENTER	HWY 39	AZUSA CA	91702	828845858

Unplottable Report

Site: ***NAVAL OCEAN SYSTEMS CENTER***
HWY 39 AZUSA CA 91702

CERCLIS

Site ID:	0903443	***RNPL Status Code:***	N
Site EPA ID:	CA6170024750	***NPL Status:***	Not on the NPL
Site Street Address 2:		***RFED Facility Code:***	Y
Site County Name:	LOS ANGELES	***RFED Facility Desc:***	Federal Facility
Site FIPS Code:	06037	***USGS Hydro Unit No.:***	18070106
Region Code:	09	***Site Cong. Dist. Code:***	30
Site SMSA No.:	4480	***ROT Desc:***	Federally Owned
Site Prim. Latitude:	34D08M06S	***FR NPL Update No.:***	
Site Prim. Longitude:	117D51M30S	***RFRA Code:***	
Lat Long Source:			

RNON NPL Status Desc: Fed Fac Site Inspection Review Start Needed

CERCLIS Site Contact Name(s)

Person ID: 13004003.00
First Name: Carl
Last Name: Brickner
Phone No.:
Email:

CERCLIS Site Contact Name(s)

Person ID: 13003854.00
First Name: Leslie
Last Name: Ramirez
Phone No.: 4159723978
Email:

CERCLIS Site Contact Name(s)

Person ID: 13003858.00
First Name: Sharon
Last Name: Murray
Phone No.: 4159724250
Email:

CERCLIS Assess History

OU ID:	00	***RALT Short Name:***	Fed Fac
Act Code ID:	001	***Act Start Date:***	
RAT Code:	PA	***Act Complete Date:***	11/12/1991 00:00:00
RAT Short Name:	PA	***AGT Order No.:***	130
RAT Name:	PRELIMINARY ASSESSMENT	***SH OU:***	
RAT Hist. Only Flag:		***SH Code:***	
RAT NSI Indicator:	B	***SH Seq:***	
RAT Level:	1	***SH Start Date:***	
RAT DEF OU:	00	***SH Complete Date:***	
RFBS Code:	P	***SH Lead:***	
SPA Code:	13		

RAT Def: Collection of diverse existing information about the source and nature of the site hazard. It is EPA policy to complete the preliminary assessment within one year of site discovery.

Site Desc:
Site Alias:

CERCLIS Assess History

OU ID:	00	***RALT Short Name:***	
Act Code ID:		***Act Start Date:***	
RAT Code:		***Act Complete Date:***	
RAT Short Name:		***AGT Order No.:***	0
RAT Name:		***SH OU:***	
RAT Hist. Only Flag:		***SH Code:***	
RAT NSI Indicator:		***SH Seq:***	
RAT Level:		***SH Start Date:***	
RAT DEF OU:		***SH Complete Date:***	
RFBS Code:		***SH Lead:***	
SPA Code:			
RAT Def:			
Site Desc:	No description available .		
Site Alias:	FORMER NOSC AZUSA,HWY 39,AZUSA,CA,96858;		

CERCLIS Assess History

OU ID:	00	***RALT Short Name:***	Fed Fac
Act Code ID:	001	***Act Start Date:***	
RAT Code:	DS	***Act Complete Date:***	5/1/1988 00:00:00
RAT Short Name:	DISCVRY	***AGT Order No.:***	10
RAT Name:	DISCOVERY	***SH OU:***	
RAT Hist. Only Flag:		***SH Code:***	
RAT NSI Indicator:	B	***SH Seq:***	
RAT Level:	1	***SH Start Date:***	
RAT DEF OU:	00	***SH Complete Date:***	
RFBS Code:		***SH Lead:***	
SPA Code:	13		
RAT Def:	The process by which a potential hazardous waste site is brought to the attention of the EPA. The process can occur through the use of several mechanisms such as a phone call or referral by another government agency.		
Site Desc:			
Site Alias:			

Site: ***NAVAL COMMAND CONTROL OCEAN***
0000 N STATE HWY 39, 4.5NE AZU AZUSA CA 91702

DELISTED COUNTY

Original Source Facility ID:	
Original Source Name:	Los Angeles County Site Mitigation List
Record Date:	23-JUN-2015

Site: ***1X COVINA-VALLEY UNIFIED SCHOOL DISTRICT***
ROWLAND GRAMMAR SCHOOL WEST COVINA CA 000000000

HAZNET

SIC Code:		***Mailing City:***	COVINA
NAICS Code:		***Mailing State:***	CA
EPA ID:	CAC000157181	***Mailing Zip:***	917230000
Create Date:	3/10/1989	***Region Code:***	3
Fac Act Ind:	No	***Owner Name:***	COVINA-VALLEY UNIFIED SCH DIST
Inact Date:	10/25/2000	***Owner Addr 1:***	--
County Code:	19	***Owner Addr 2:***	
County Name:	Los Angeles	***Owner City:***	--
Mail Name:		***Owner State:***	99
Mailing Addr 1:	P.O. BOX 269	***Owner Zip:***	--
Mailing Addr 2:		***Owner Phone:***	0000000000
Owner Fax:			

Contact Information

--	--
Contact Name:	GWEN JANKINS, SECTY
Street Address 1:	--
Street Address 2:	
City:	--
State:	99
Zip:	--

Phone: 8183313371
-- --

Site: ***BALDWIN PARK MOVING CENTER***
? PUENTE AVE BALDWIN PARK CA 91706 HHSS

County: Los Angeles
Pdf File Url: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00028e53.pdf

---

Site:
ROWLAND GRAMMAR SCHOOL WEST COVINA CA 0 HIST MANIFEST

Gen EPA ID: CAC000157181
Create Date: 03/10/1989 0:00
Inact Date: 10/25/2000 0:00:00
Facility Mail Street: P.O. BOX 269
Facility Mail City: COVINA
Facility Mail State: CA
Facility Mail Zip: 917230000
Contact Phone(s): 8183313371
File Year(s): 1989
Contact Name(s): GWEN JANKINS, SECTY

Tanner Information

Method Description:
Tons: 0.1
Year: 1989
Generator County Code: 19
Generator County: Los Angeles
Method Code: D80
Tsd County Code: 19
Tsd County: Los Angeles
State Waste Code: 151
State Waste Code Desc: Asbestos containing waste
Tsd Epa ID: CAD067786749

Tanner Information

Method Description:
Tons: 0
Year: 1989
Generator County Code: 19
Generator County: Los Angeles
Method Code:
Tsd County Code: 19
Tsd County: Los Angeles
State Waste Code:
State Waste Code Desc:
Tsd Epa ID: CAD067786749

Site: ***UNIVERSAL MOTION COMPONENTS***
17788 ROWLAND ST LA PUENTE CA 91748 RCRA SQG

EPA Handler ID: CA0000148858
Gen Status Universe: Small Quantity Generator
Contact Name: KAREN GALVAN
Contact Address: 17788 ROWLAND ST, , CITY OF INDUSTRY, CA, 91728-1119, US
Contact Phone No and Ext: 818-935-1940
Contact Email:
Contact Country: US
County Name: LOS ANGELES
EPA Region: 09
Land Type:
Receive Date: 19940314

Violation/Evaluation Summary

Note: NO RECORDS: As of Aug 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19940314
Handler Name: UNIVERSAL MOTION COMPONENTS
Generator Status Universe: Small Quantity Generator
Source Type: N

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Private
Name: STEVE ECOFF
Date Became Current:
Date Ended Current:
Phone: 805-983-1223
Source Type: N
Street No:
Street 1: 442 GLENWOOD DR
Street 2:
City: OXNARD
State: CA
Country:
Zip Code: 93050

Site: ***USNAVY NAVAL OCEAN SYSTEMS CENTER***
HIGHWAY 39 AZUSA CA 91702

RCRA SQG

EPA Handler ID: CA6170024750
Gen Status Universe: Small Quantity Generator
Contact Name:
Contact Address: US
Contact Phone No and Ext:
Contact Email:
Contact Country: US
County Name: LOS ANGELES
EPA Region: 09
Land Type:
Receive Date: 19960901

Violation/Evaluation Summary

Note: NO RECORDS: As of Aug 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No

Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 19990304
Handler Name: SSC-SD, MORRIS DAM FACILITY
Generator Status Universe: Small Quantity Generator
Source Type: R

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19960901
Handler Name: USNAVY NAVAL OCEAN SYSTEMS CENTER
Generator Status Universe: Small Quantity Generator
Source Type: I

Hazardous Waste Handler Details

Sequence No: 2
Receive Date: 19960901
Handler Name: USNAVY NAVAL OCEAN SYSTEMS CENTER
Generator Status Universe: Small Quantity Generator
Source Type: I

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19920305
Handler Name: NCCOSC RDT&E DIV - MORRIS DAM
Generator Status Universe: Small Quantity Generator
Source Type: R

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19810415
Handler Name: USNAVY NAVAL OCEAN SYSTEMS CENTER
Generator Status Universe: Small Quantity Generator
Source Type: N

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Federal
Name: NOT REQUIRED
Date Became Current:
Date Ended Current:
Phone: 415-555-1212
Source Type: N
Street No:
Street 1: NOT REQUIRED
Street 2:
City: NOT REQUIRED
State: ME
Country:
Zip Code: 99999

Owner/Operator Ind: Current Operator
Type: Federal
Street No:
Street 1: NOT REQUIRED

Name:	NOT REQUIRED	***Street 2:***	
Date Became Current:		***City:***	NOT REQUIRED
Date Ended Current:		***State:***	ME
Phone:	415-555-1212	***Country:***	
Source Type:	I	***Zip Code:***	99999

Site: ***SHELL SERVICE STATION***
422 AZUSA S A P 135067 AZUSA CA 91702

RCRA SQG

EPA Handler ID:	CAR000073312
Gen Status Universe:	Small Quantity Generator
Contact Name:	SONDRA BIENVENU
Contact Address:	P O BOX 2099, , HOUSTON, TX, 77252-2099, US
Contact Phone No and Ext:	713-241-5036
Contact Email:	
Contact Country:	US
County Name:	LOS ANGELES
EPA Region:	09
Land Type:	
Receive Date:	20000512

Violation/Evaluation Summary

Note: NO RECORDS: As of Aug 2018, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20000512
Handler Name:	SHELL SERVICE STATION
Generator Status Universe:	Small Quantity Generator
Source Type:	N

Waste Code Details

Hazardous Waste Code:	D000
Waste Code Description:	DESCRIPTION
Hazardous Waste Code:	D018
Waste Code Description:	BENZENE

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Private	***Street 1:***	P O BOX 2099
Name:	EQUILON ENTERPRISES LLC	***Street 2:***	
Date Became Current:		***City:***	HOUSTON

Date Ended Current:		***State:***	TX
Phone:	713-241-5036	***Country:***	
Source Type:	N	***Zip Code:***	77252-2099

Site: ***NAVAL OCEAN SYSTEMS CENTER***
HWY 39 AZUSA CA 91702

SEMS

Site ID:	0903443	***Cong District:***	30
EPA ID:	CA6170024750	***County:***	LOS ANGELES
Federal Facility:	Yes	***Region:***	09
NPL:	Not on the NPL	***Latitude:***	
FIPS Code:	06037	***Longitude:***	
Non NPL Status:	Fed Fac Site Inspection Review Start Needed		
Last Appeared on SEMS List:	13-AUG-2018		

Action Information

Operable Units:	00	***Start Actual:***	05/01/1988
Action Code:	DS	***Finish Actual:***	05/01/1988
Action Name:	DISCVRY	***Qual:***	
SEQ:	1	***Curr Action Lead:***	Fed Fac
Operable Units:	00	***Start Actual:***	
Action Code:	PA	***Finish Actual:***	11/12/1991
Action Name:	PA	***Qual:***	H
SEQ:	1	***Curr Action Lead:***	Fed Fac

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: Oct 10, 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: Oct 10, 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: Oct 10, 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: Aug 13, 2018

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: Aug 13, 2018

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Aug 2, 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: Aug 2, 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: Aug 2, 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: Aug 2, 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: Aug 2, 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: Aug 2, 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 12, 2018

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: Aug 13, 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: Aug 13, 2018

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: Jul 18, 2018

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: Jul 18, 2018

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Jul 18, 2018

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: Aug 15, 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: Aug 23, 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: Jul 19, 2018

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

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: Jul 6, 2018

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: Jul 19, 2018

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

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: Oct 2, 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: Jul 19, 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: Oct 2, 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: Jul 9, 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: Jul 18, 2018

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: Aug 8, 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: Jul 27, 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: Jul 18, 2018

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: Jul 6, 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: Jul 9, 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: Dec 31, 2017

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

USTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Dec 31, 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: Oct 14, 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: Oct 14, 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: Nov 5, 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: Nov 5, 2018

Los Angeles County - El Segundo City Underground Storage Tanks List: UST ELSEGUNDO

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: UST SANTAFESP

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: Aug 21, 2018

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: Aug 21, 2018

Los Angeles County - Santa Monica City Underground Storage Tank List: UST SANTA MONICA

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: Aug 21, 2018

Los Angeles County - Torrance City Underground Storage Tanks: UST TORRANCE

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: Aug 13, 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: May 30, 2018

Los Angeles County - Vernon City UST List: UST VERNON

A list of Underground Storage Tanks (UST) in Vernon City provided by the Vernon City Fire Department.

Government Publication Date: Aug 30, 2018

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: Sep 20, 2018

Los Angeles County Long Beach UST List: UST LONGB

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: Jul 9, 2018

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: Aug 21, 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 1, 2018

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 1, 2018

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 1, 2018

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: Apr 17, 2018

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, 2017

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: May 23, 2018

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: Jul 18, 2018

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: Aug 13, 2018

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: May 29, 2018

Delisted Drycleaner Facilities: DELISTED FED DRY
List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).
Government Publication Date: May 29, 2018

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: Oct 23, 2018

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: Jun 30, 2017

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: Jan 30, 2018

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: Oct 16, 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: Sep 14, 2018

State

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: Jun 21, 2018

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jun 21, 2018

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Feb 28, 2018

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: Aug 14, 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

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: Oct 2, 2018

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: Jul 18, 2018

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: Jun 19, 2018

Hazardous Waste Manifest Data: HAZNET

A list of hazardous waste manifests received each year by Department of Toxic Substances Control (DTSC). The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Oct 24, 2016

Historical 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 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 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

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: Jul 9, 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: Jul 9, 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: May 30, 2018

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, 2016

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: Dec 31, 2017

Tribal

No Tribal additional environmental record sources available for this State.

County

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: Jul 31, 2018

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: Aug 21, 2018

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: Aug 21, 2018

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.

APPENDIX F

HISTORICAL RESEARCH DOCUMENTATION

Leighton

ENVIRONMENTAL RISK INFORMATION SERVICES

HISTORICAL AERIAL REPORT

for the site:
Pioneer School
1651 East Rowland Avenue
West Covina, CA 91791
PO #:

Report ID: 20181114114
Completed: 11/14/2018

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'	
1995	**USGS** - US Geological Survey	1"=500'	
1987	**NHAP** - National High Altitude Photography	1"=500'	*BEST COPY AVAILABLE*
1980	**USGS** - US Geological Survey	1"=500'	
1972	**USGS** - US Geological Survey	1"=500'	
1964	**USGS** - US Geological Survey	1"=500'	
1960	**FAIRCHILD** - Private Company	1"=500'	*BEST COPY AVAILABLE*
1952	**USGS** - US Geological Survey	1"=500'	
1948	**ASCS** - Agriculture and Soil Conservation Service	1"=500'	
1938	**ASCS** - Agriculture and Soil Conservation Service	1"=500'	
1934	**FAIRCHILD** - Private Company	1"=500'	*BEST COPY AVAILABLE*
1928	**FAIRCHILD** - Private Company	1"=500'	*BEST COPY AVAILABLE*

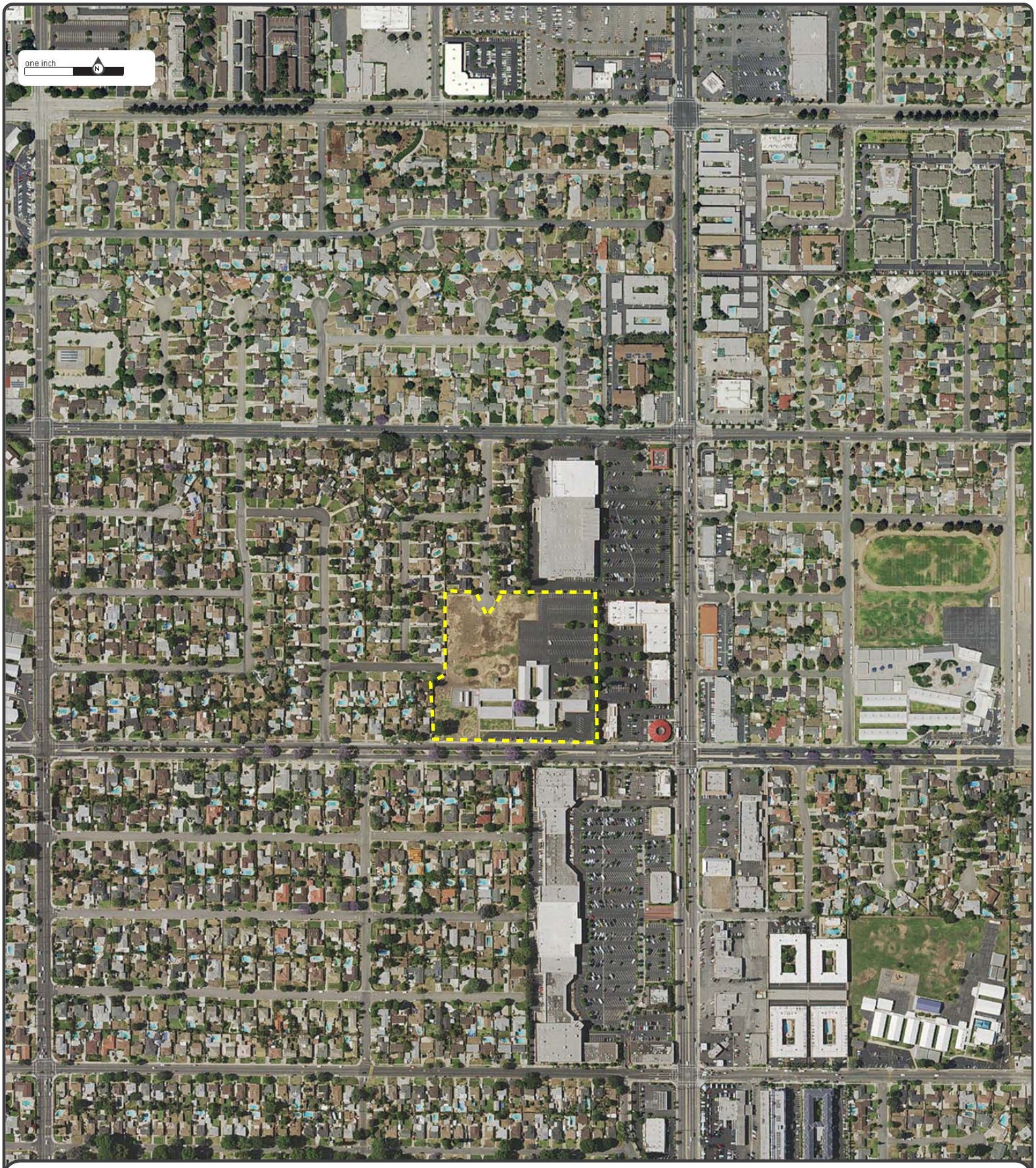
Date: **2016**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



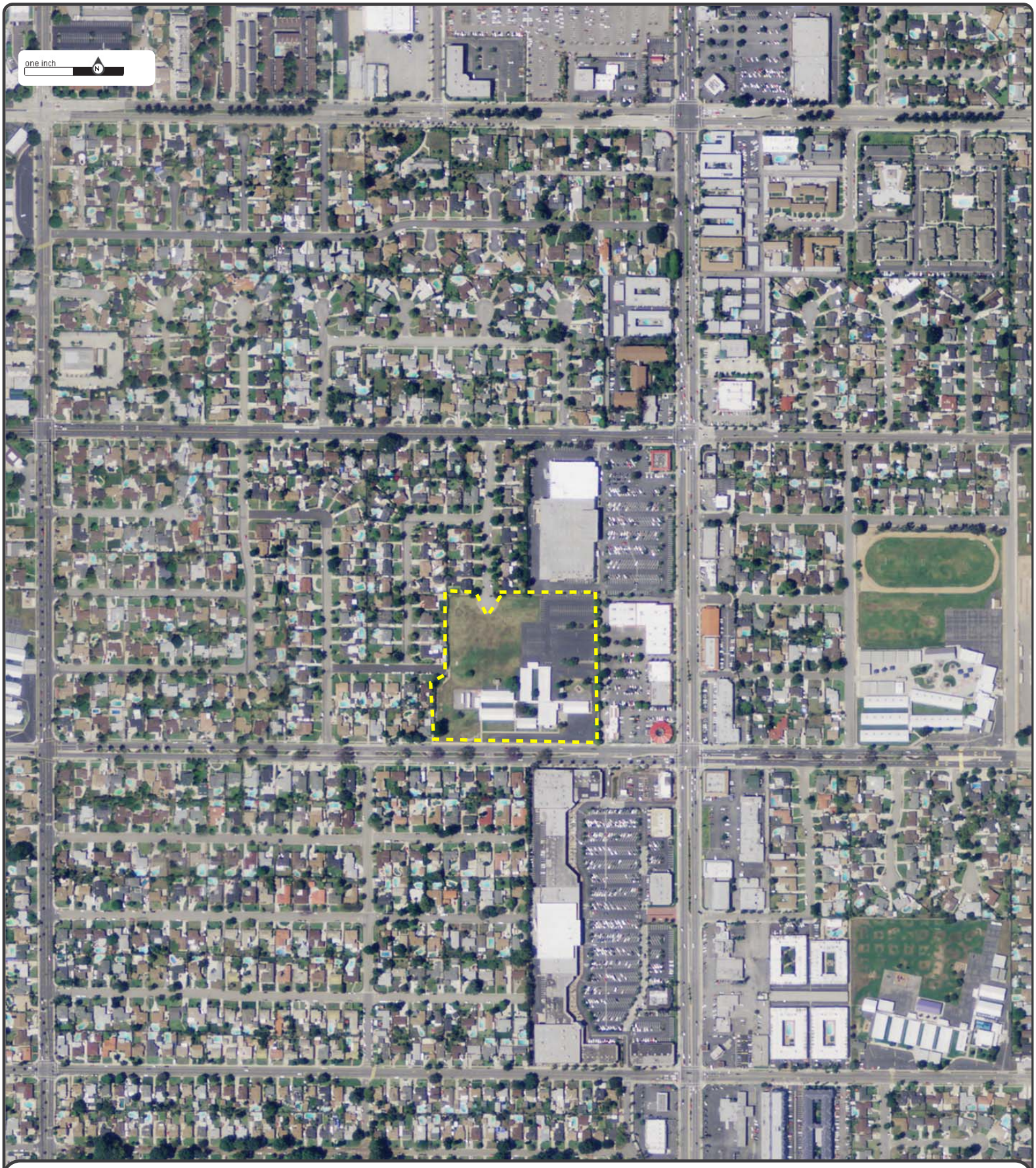
Date: **2014**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



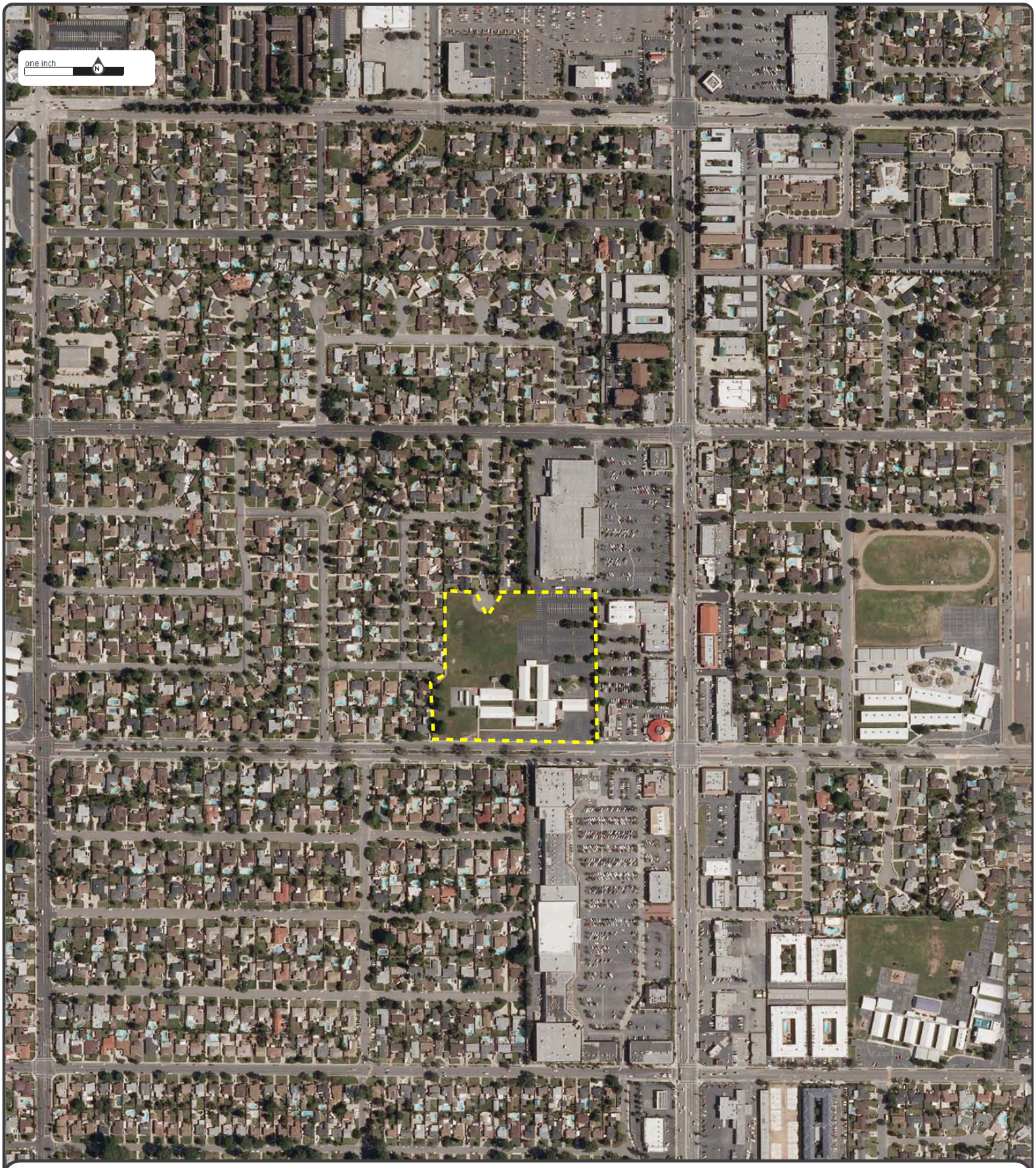
Date: **2012**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



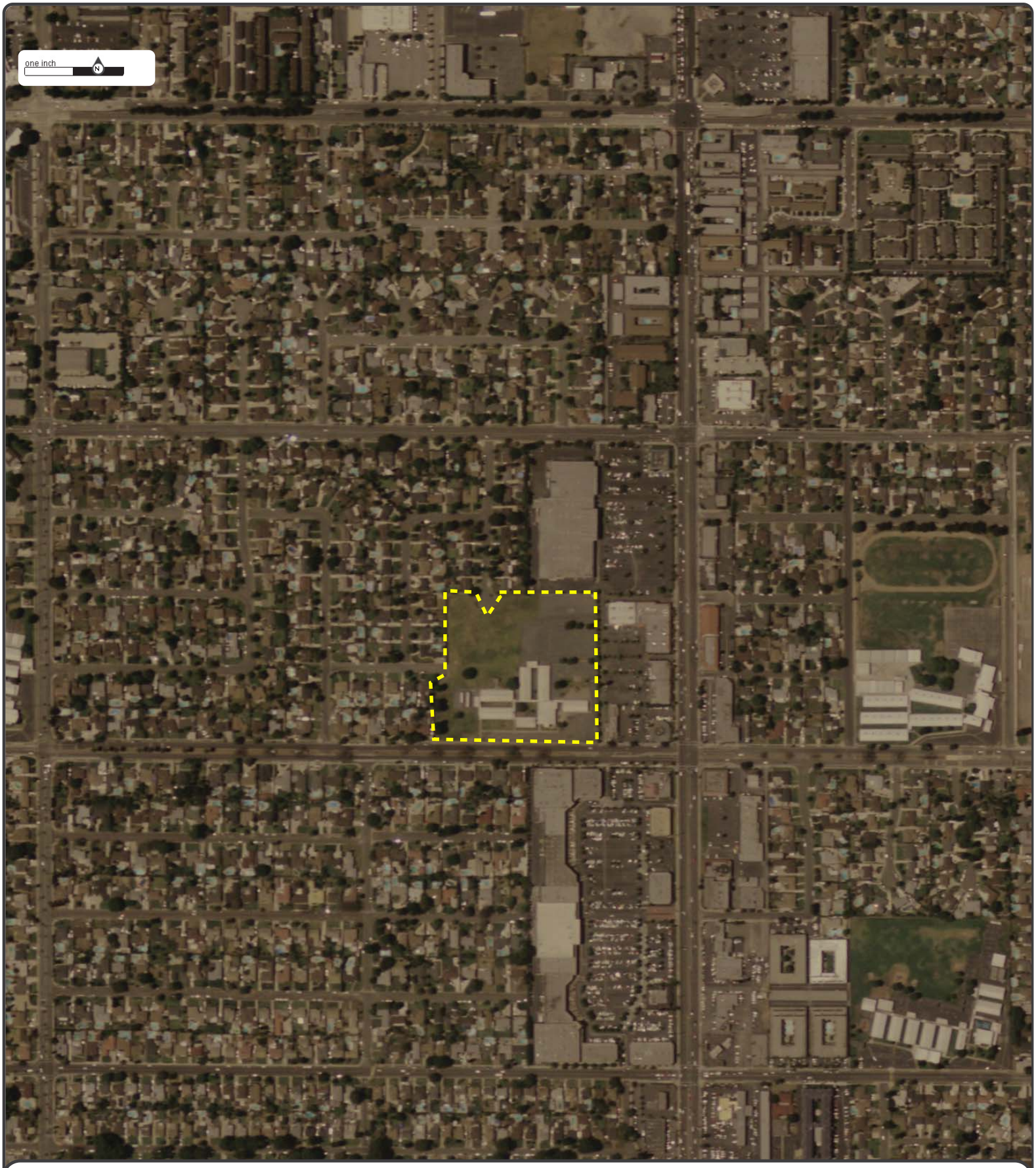
Date: **2010**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



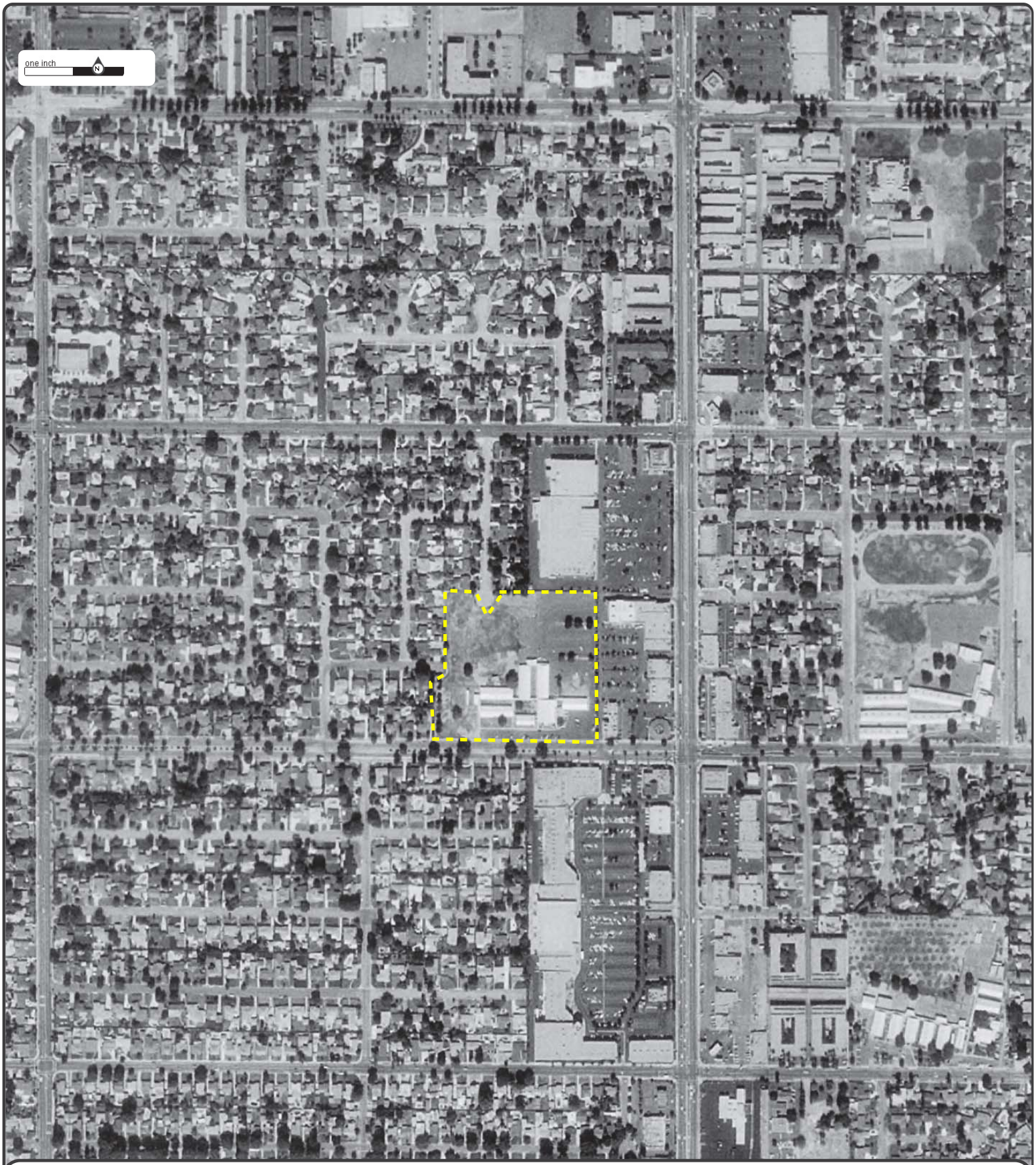
Date: **2005**
Source: **NAIP**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



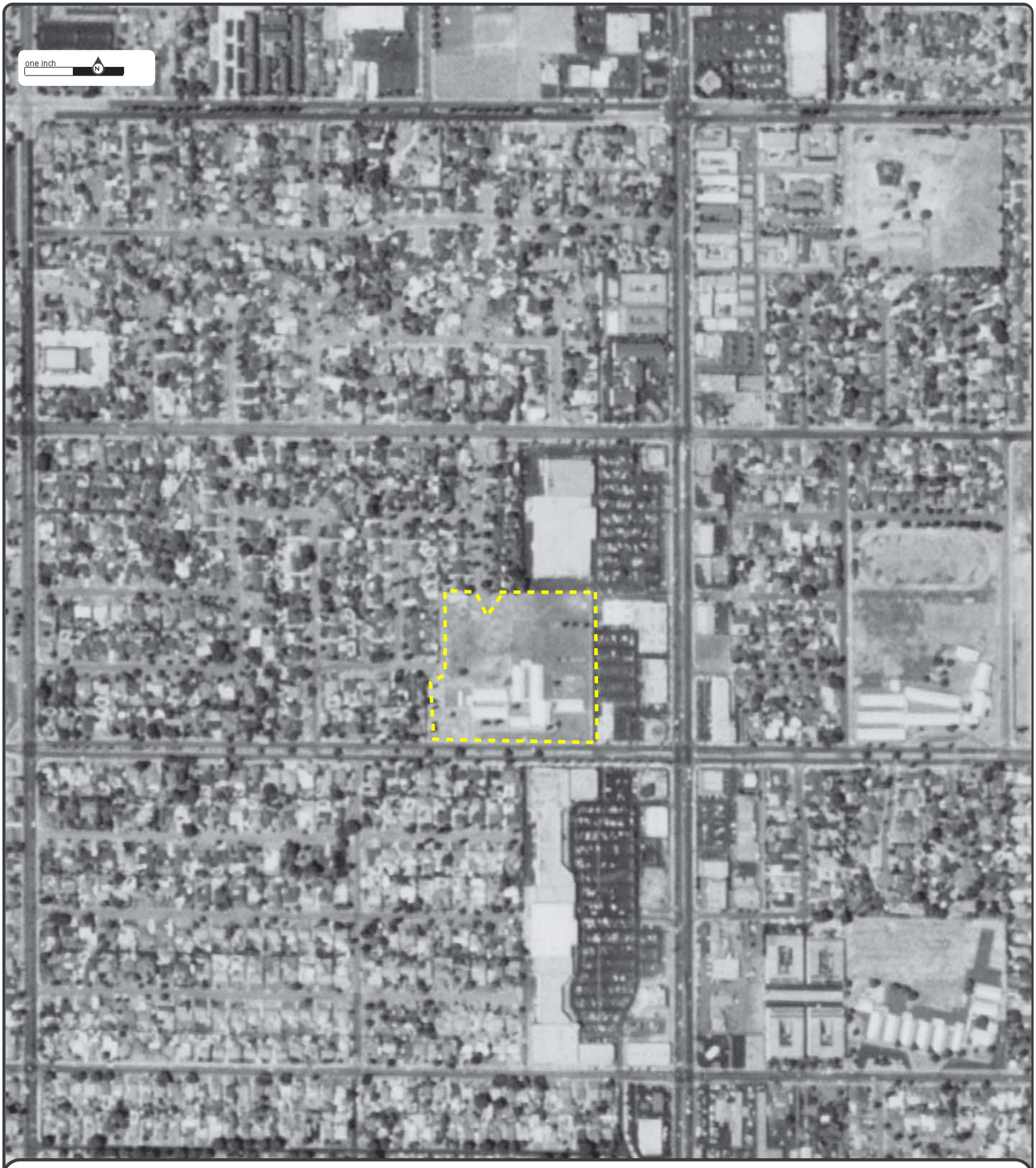
Date: **1995**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



Date: **1987**
Source: **NHAP**
Scale: **1" to 500'**
Comments: *BEST COPY AVAILABLE*

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

Date: **1980**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

Date: **1972**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

Date: **1964**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

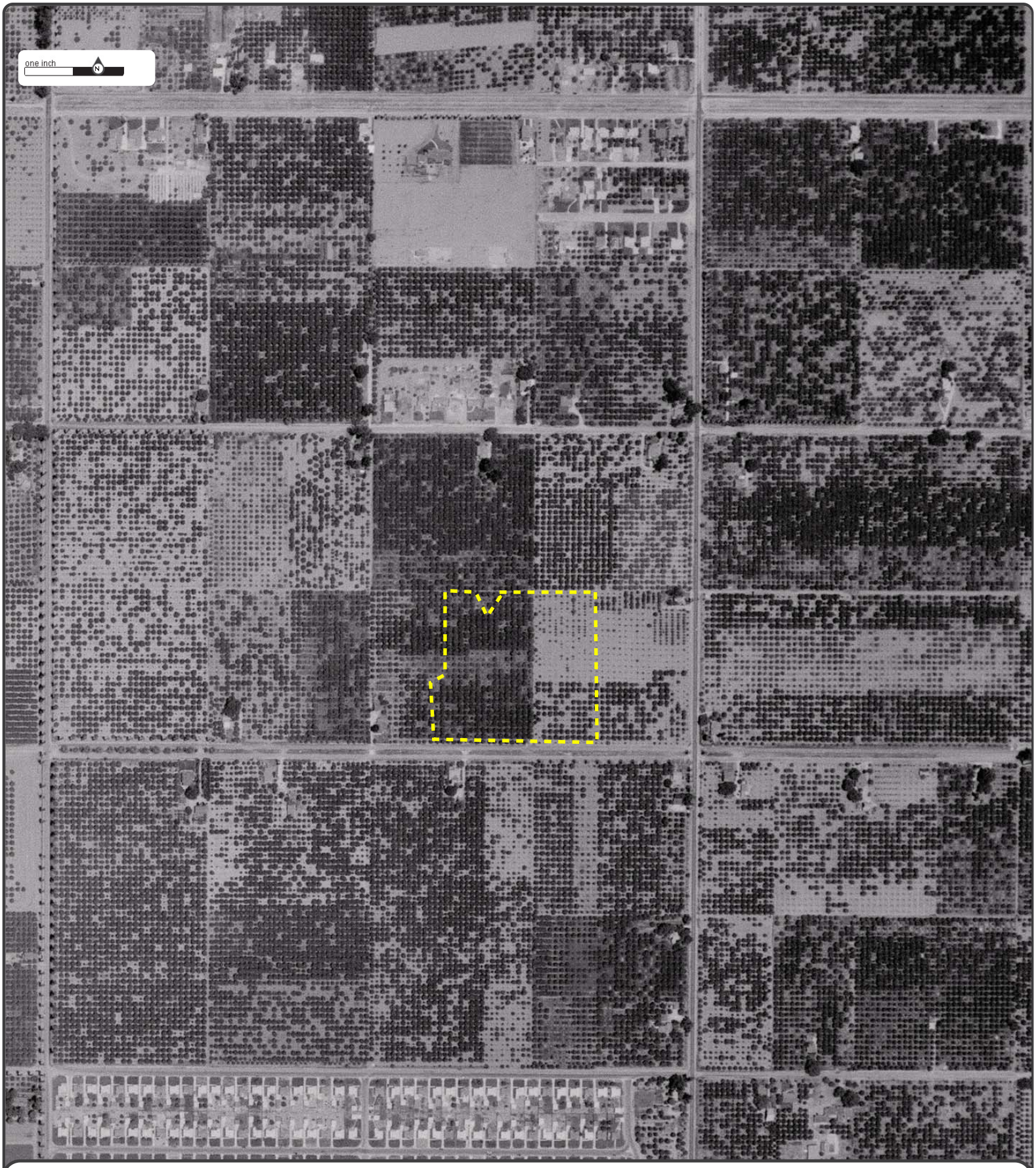
Date: **1960**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments: *BEST COPY AVAILABLE*

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



Date: **1952**
Source: **USGS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

Date: **1948**
Source: **ASCS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

Date: **1938**
Source: **ASCS**
Scale: **1" to 500'**
Comments:

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

one inch

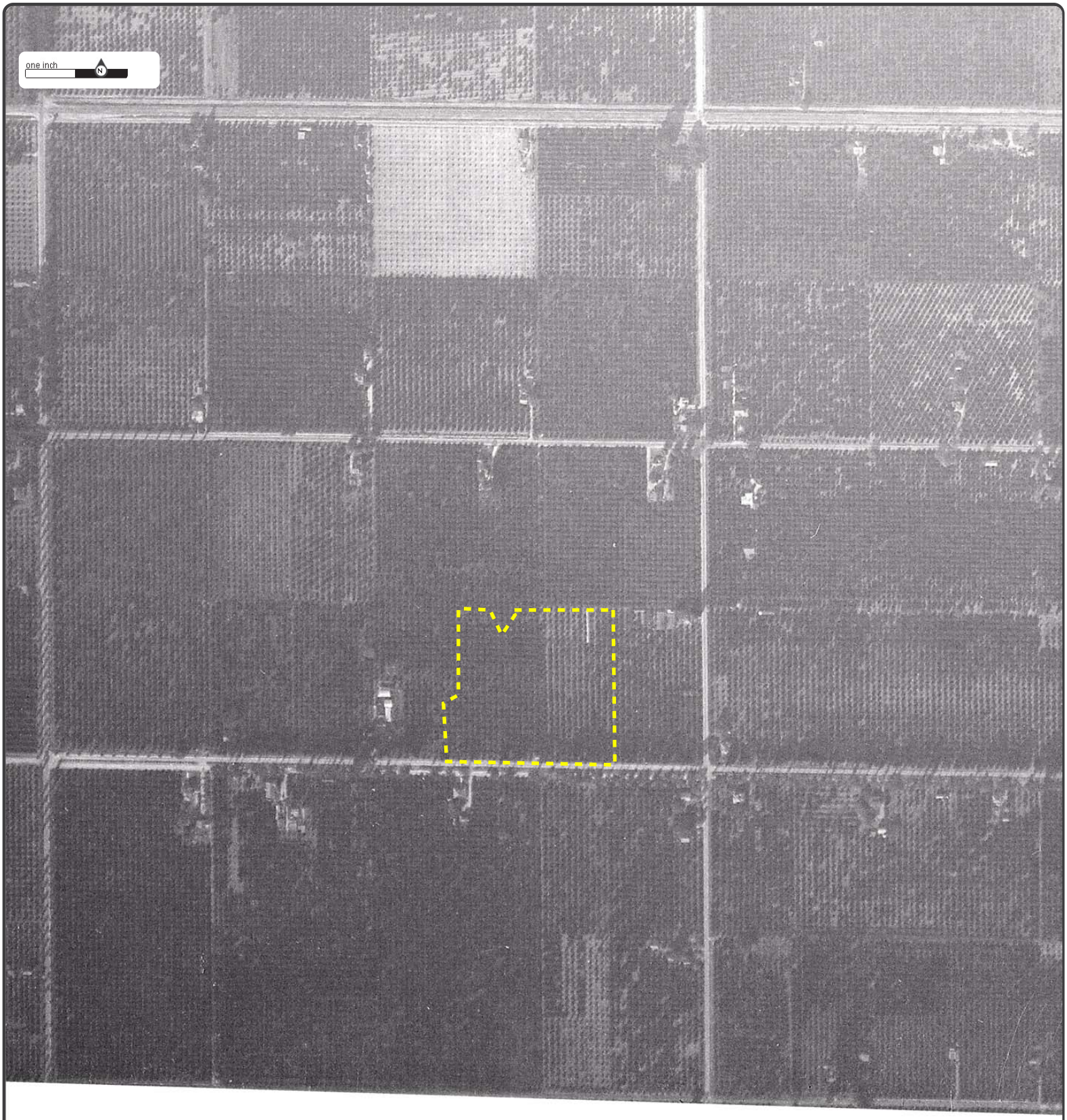
Date: **1934**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments: *BEST COPY AVAILABLE*

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204



Date: **1928**
Source: **FAIRCHILD**
Scale: **1" to 500'**
Comments: *BEST COPY AVAILABLE*

Subject: 1651 East Rowland Avenue West Covina CA
Approx Center: 34.08009 / -117.9100

N

ENVIRONMENTAL RISK INFORMATION SERVICES

www.erisinfo.com | 1.866.517.5204

TOPOGRAPHIC MAP RESEARCH RESULTS

Date: 2018-11-15

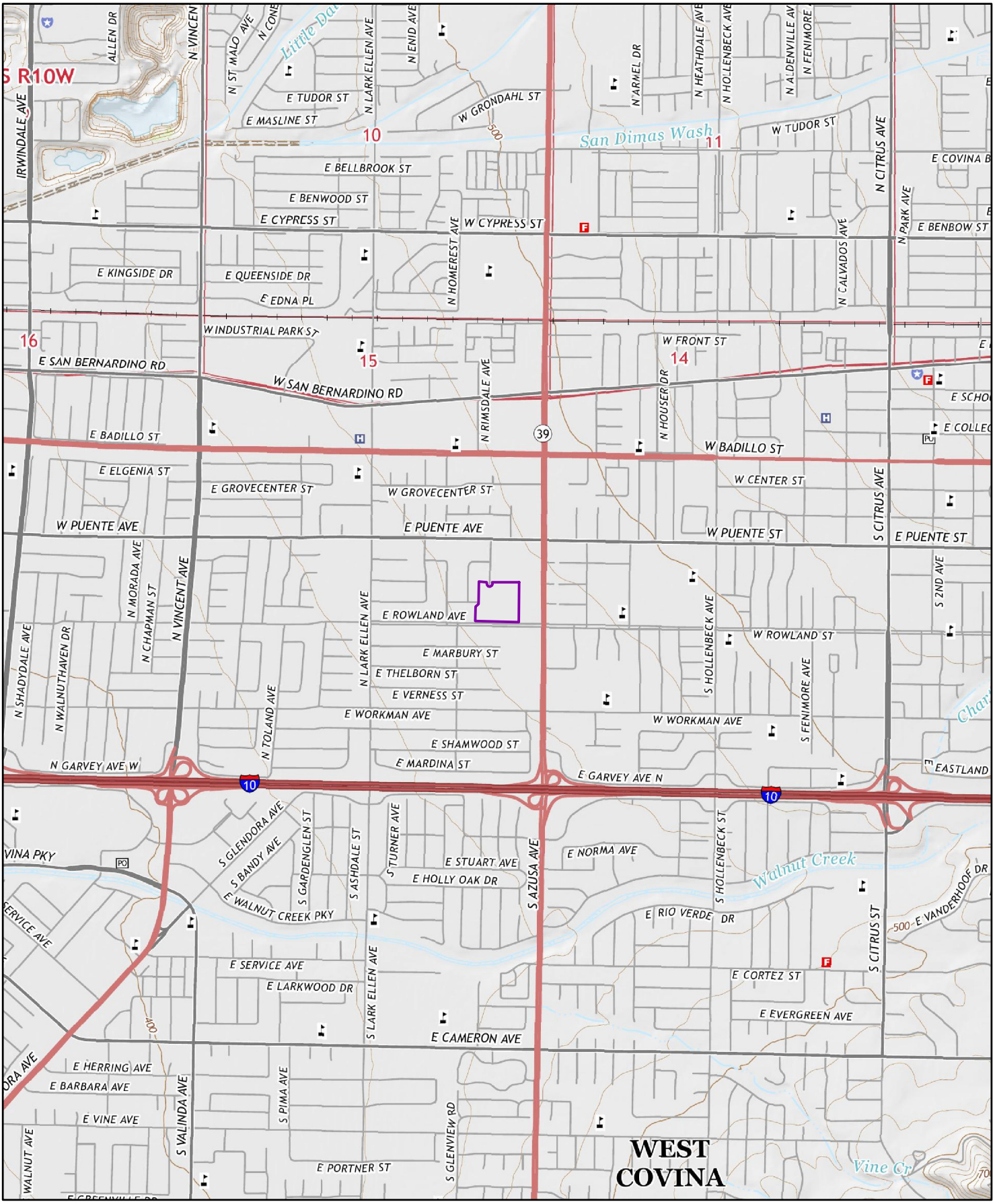
Order Number: 20181114114

Site Name: Pioneer School
Address: 1651 East Rowland Avenue, West Covina, CA, 91791

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
1972	7.5
1966	7.5
1953	7.5
1927	7.5
1904	15
1898	15
1897	15
1894	15

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

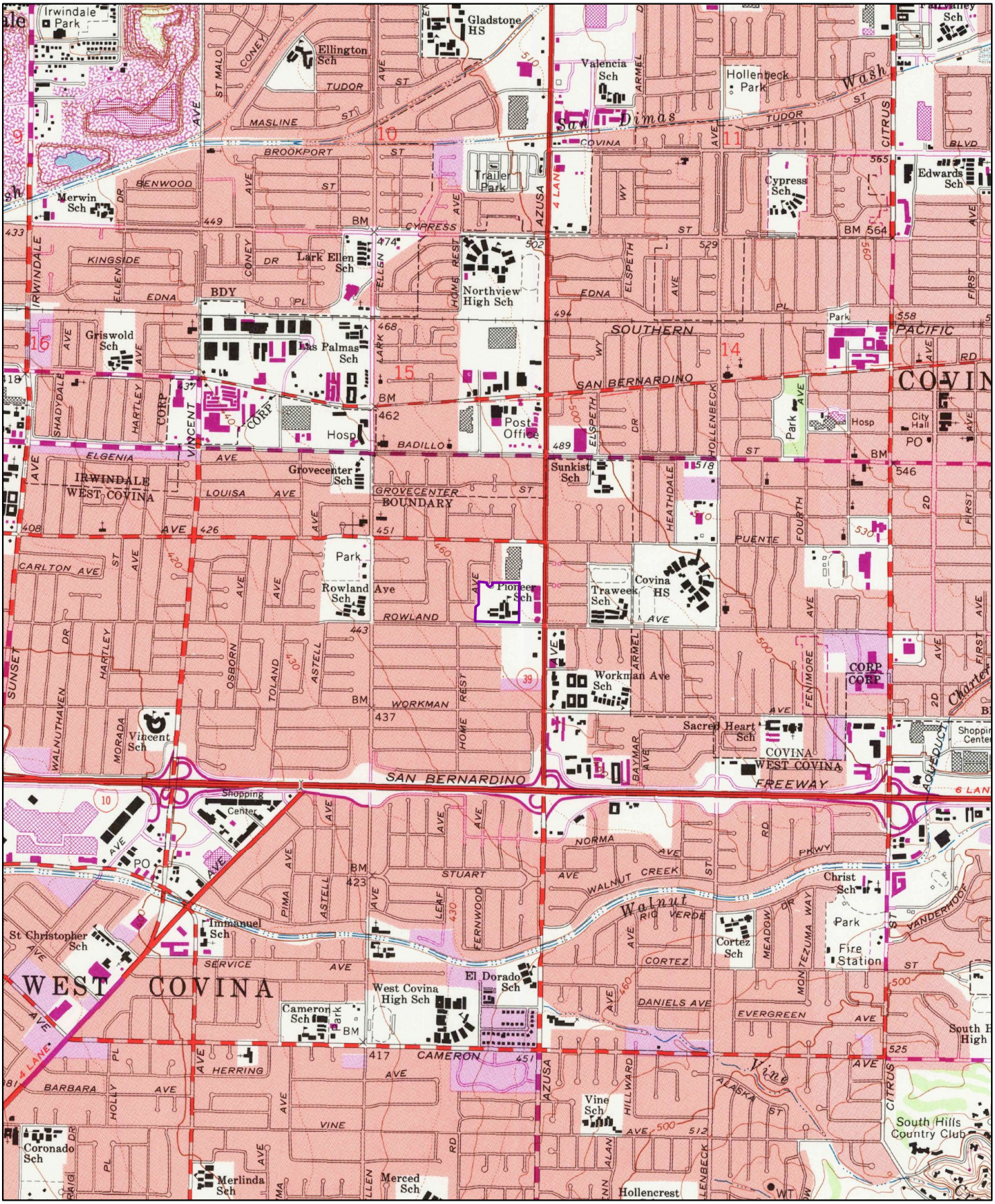
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES



1981

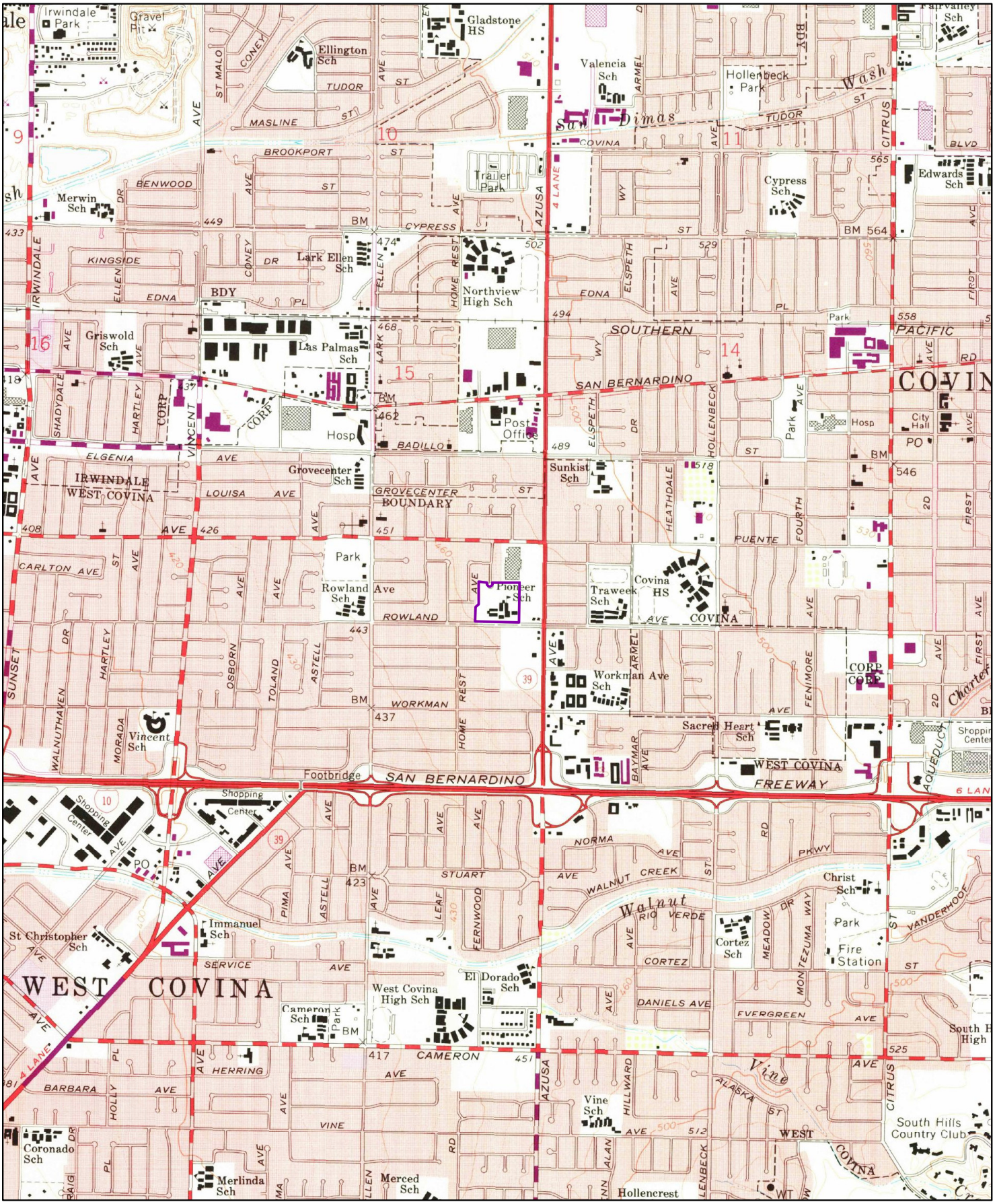
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



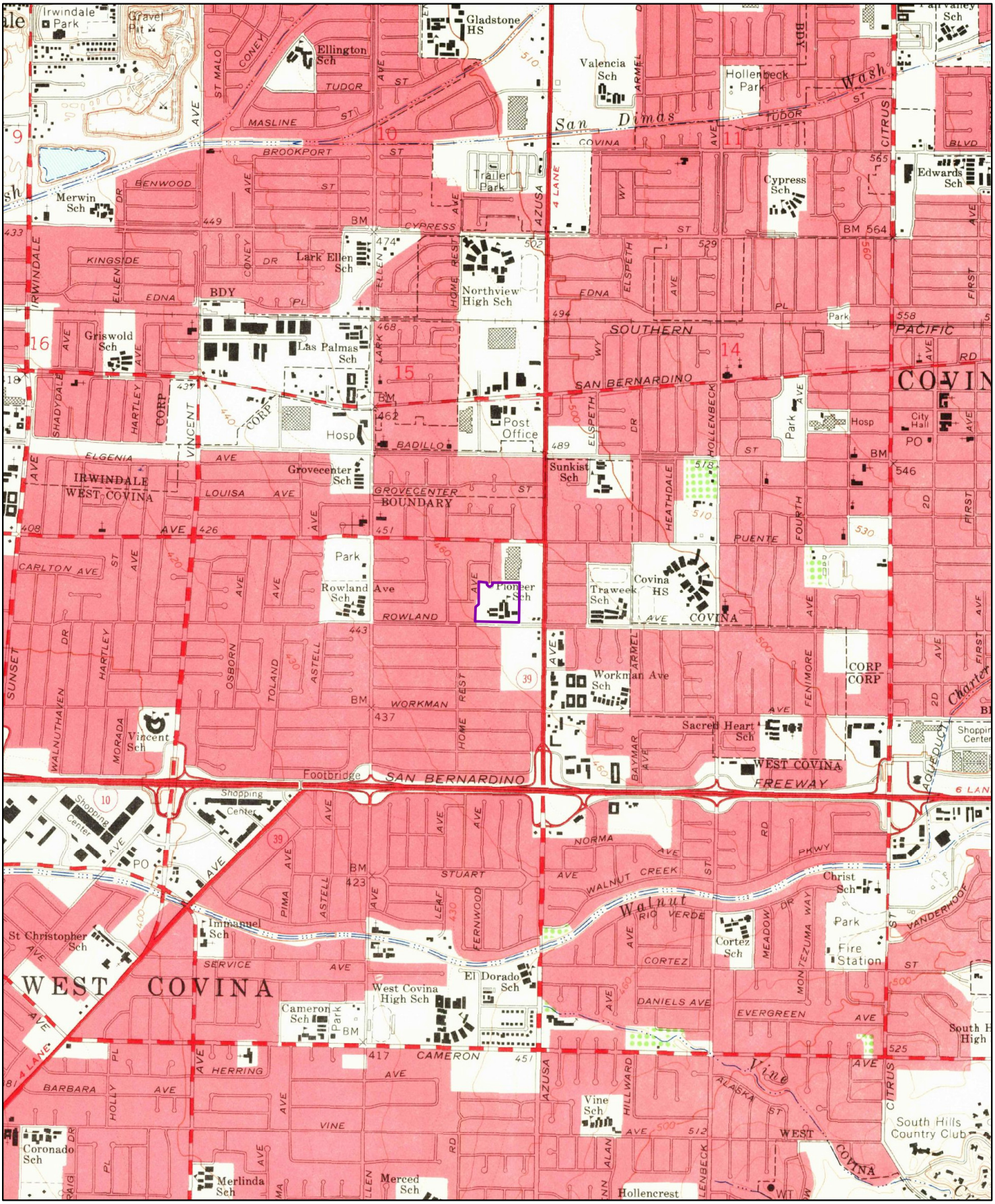
1972

Order No. 20181114114

Quadrangle(s): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



1966

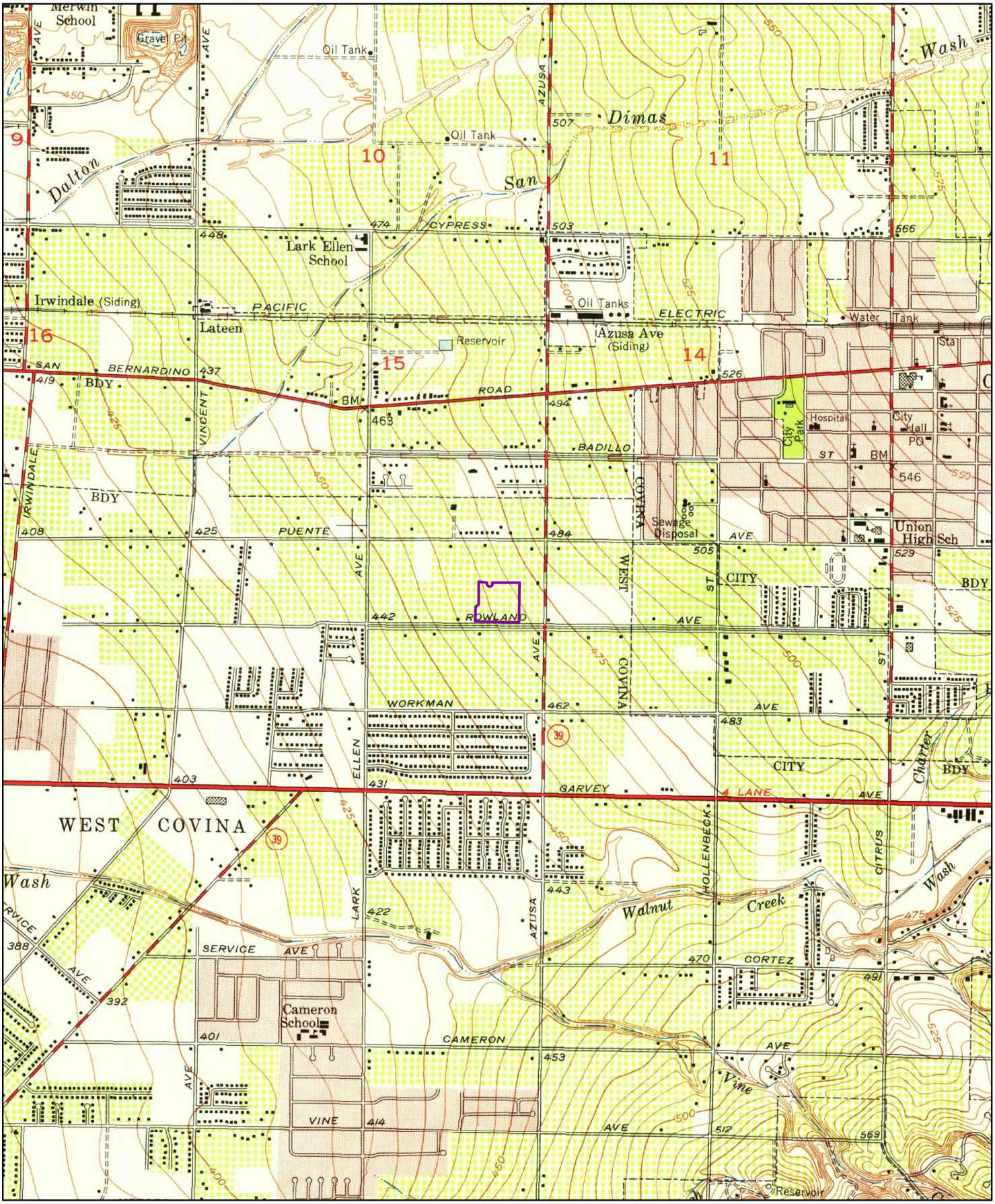
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



1953

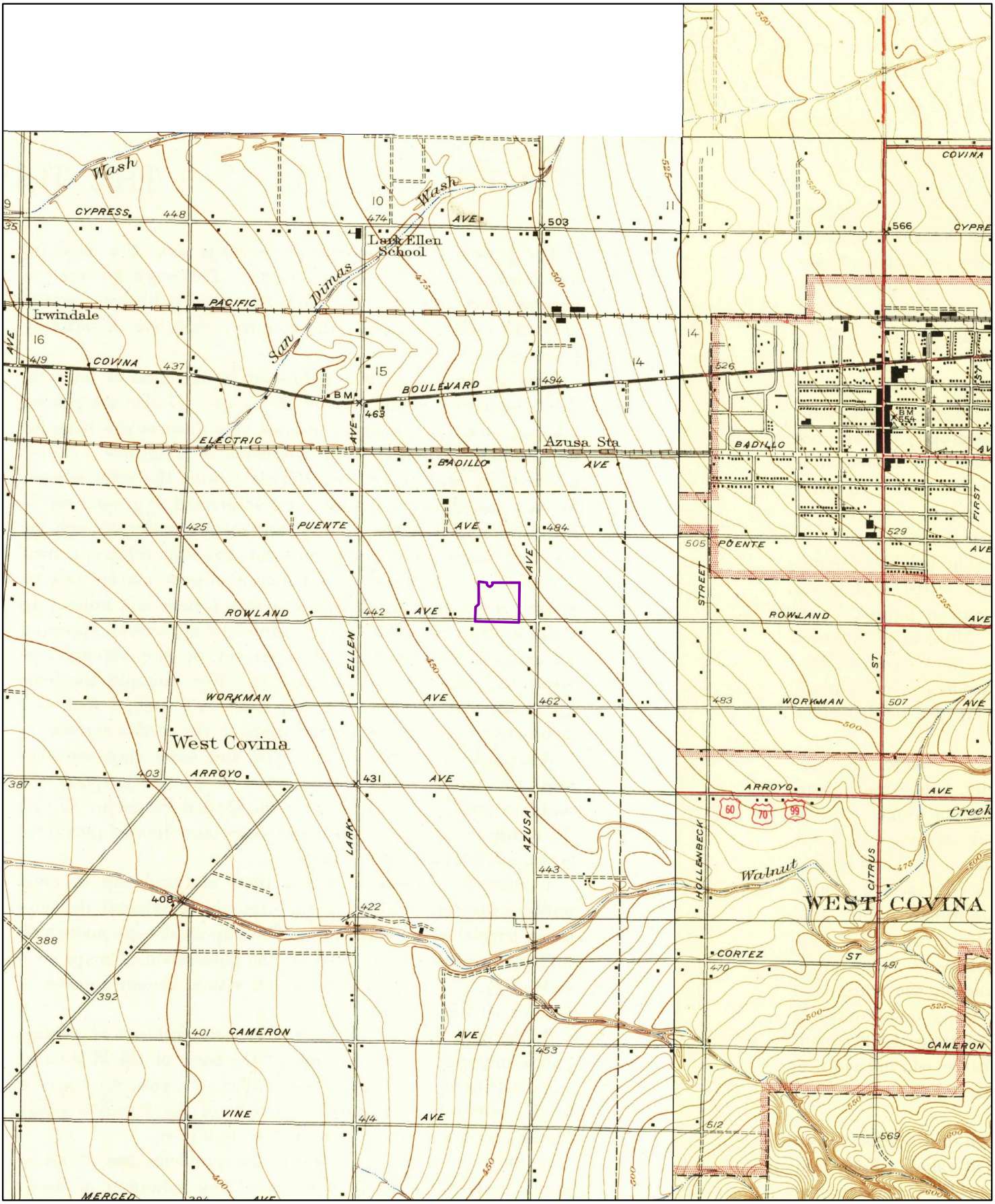
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES



1927

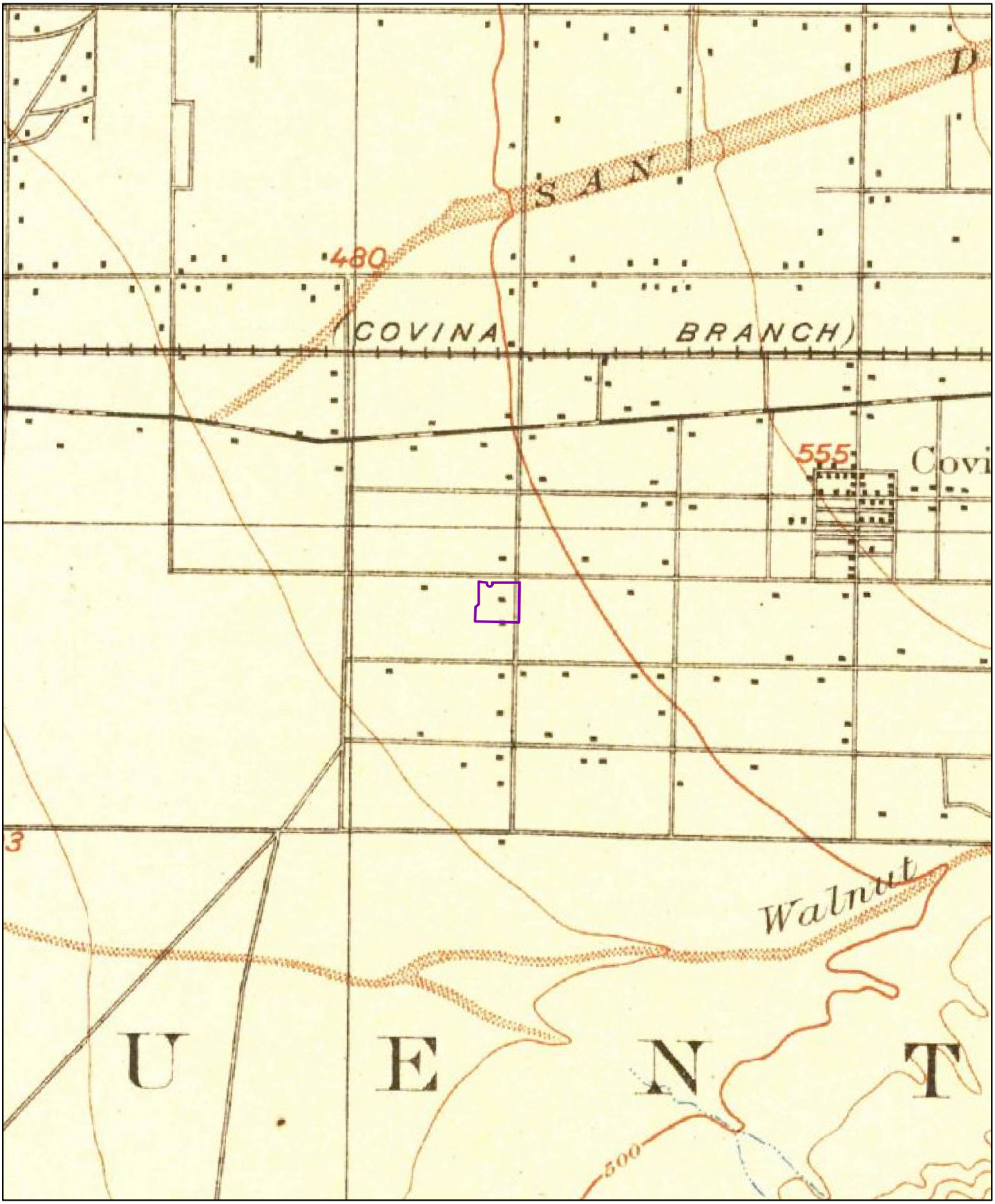
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Puente,CA

Source: USGS 7.5 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



1904

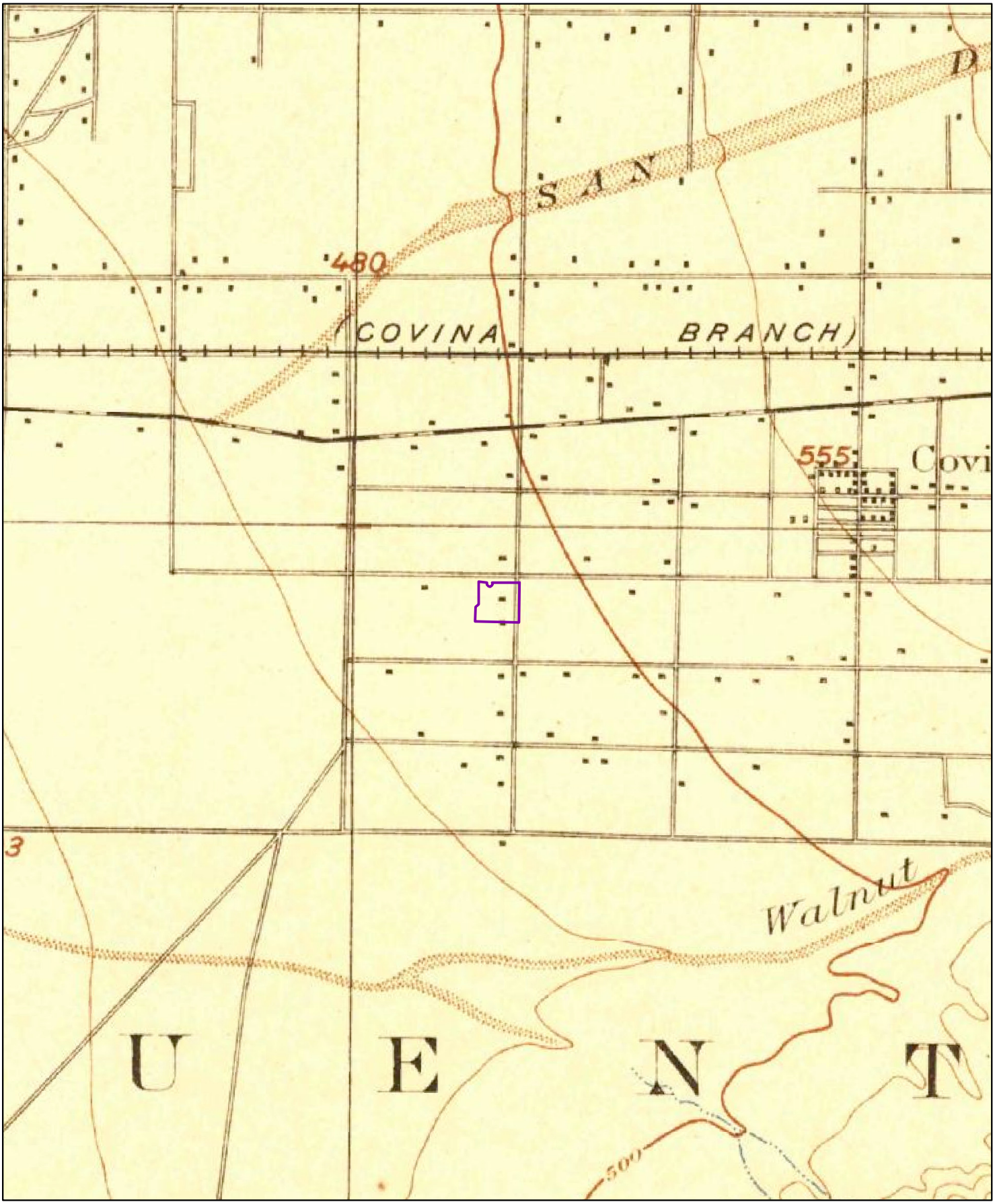
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Pomona,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



1898

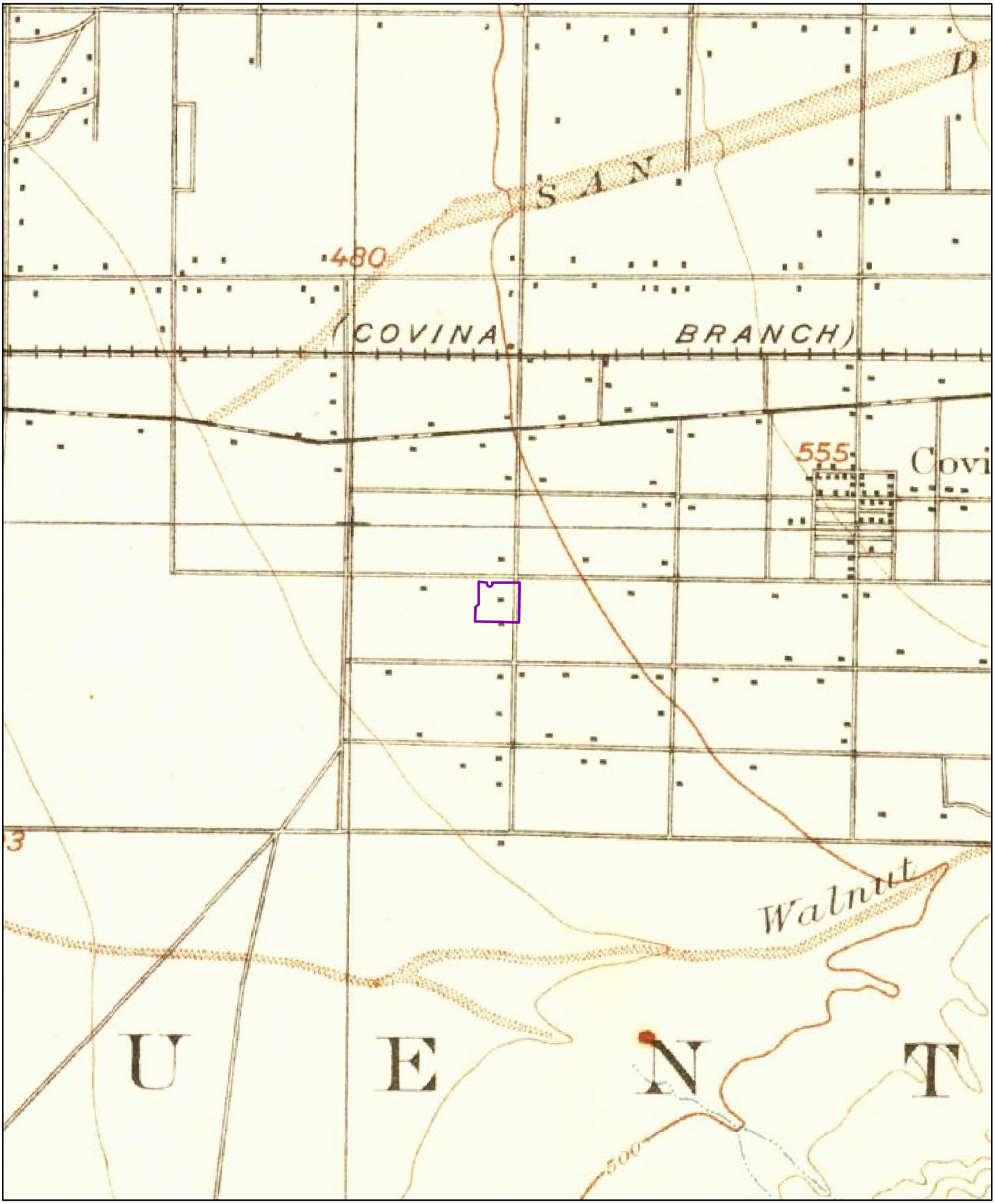
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Pomona,CA

Source: USGS 15 Minute Topographic Map

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES



1897

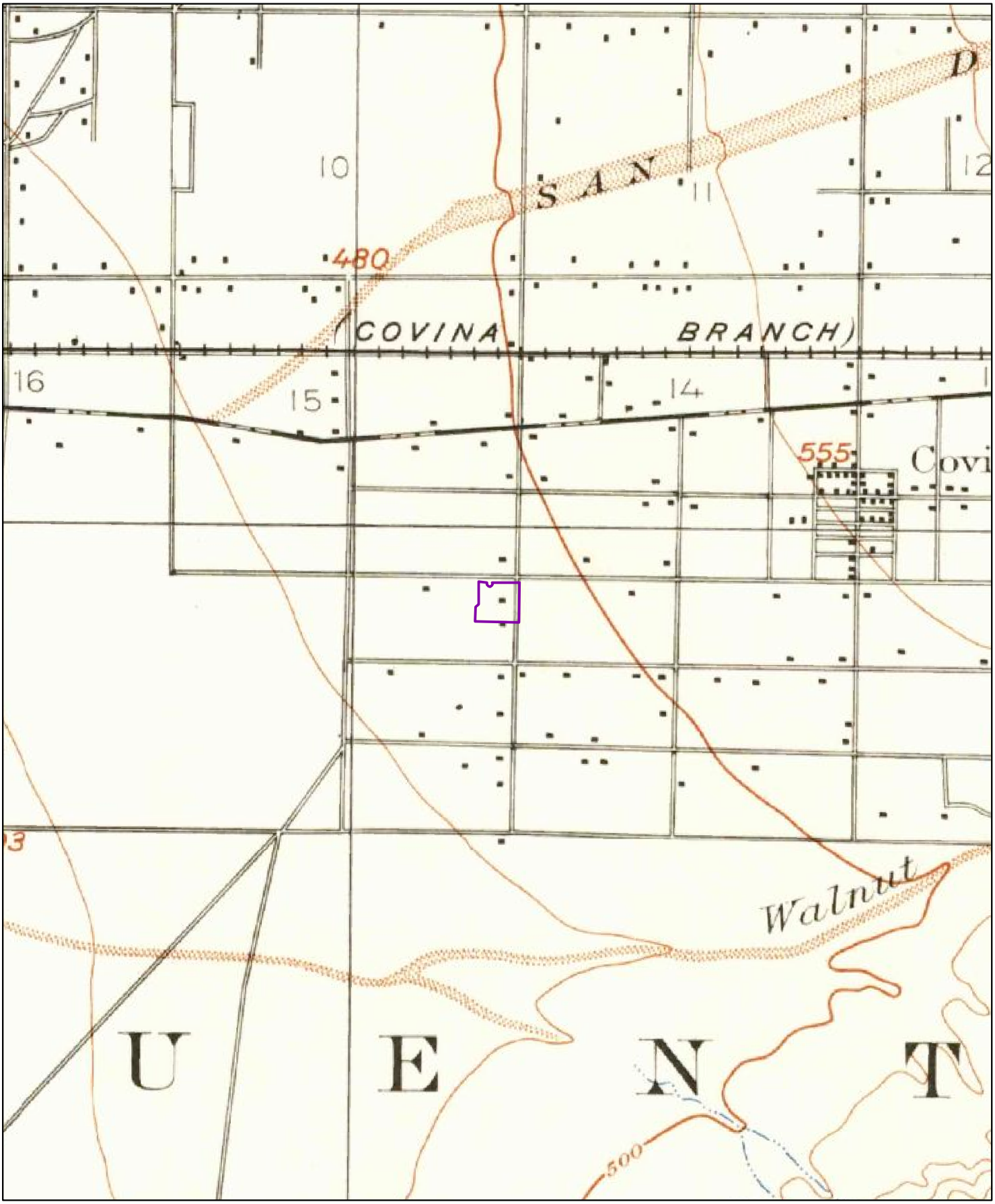
0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Pomona,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



1894

0 0.2 0.4 0.8 Miles

Order No. 20181114114

Quadrangle(s): Pomona,CA

Source: USGS 15 Minute Topographic Map

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

ENVIRONMENTAL RISK INFORMATION SERVICES

HISTORICAL DIRECTORY REPORT

for the site:

Pioneer School
1651 East Rowland Avenue
West Covina, CA 91791
PO #:

Report ID: 20181114114
Completed: 11/16/2018

Environmental Risk Information Service (ERIS)
A division of Glacier Media Inc.
T: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

Search Results Summary

Date	Source	Comment
2018	DIGITAL BUSINESS DIRECTORY	
2012	DIGITAL BUSINESS DIRECTORY	
2006	HAINES	
2000-01	HAINES	
1994-95	HAINES	
1990-91	HAINES	
1986	HAINES	
1979	HAINES	
1975	HAINES	
1972	HAINES	
1966	STREET ADDRESS DIRECTORY	
1962	STREET ADDRESS DIRECTORY	
1951	STREET ADDRESS DIRECTORY	

11/16/2018

RE: CITY DIRECTORY RESEARCH
Pioneer School
1651 East Rowland Avenue West Covina, 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:

1600-1800 of East Rowland Avenue
1600-1800 of East Pioneer Drive

2018 EAST ROWLAND AVENUE

SOURCE: DIGITAL BUSINESS DIRECTORY

1355 **COVINA VALLEY UNIFIED SCH DIST**...*Schoo*
1355 **OPTIONS**...*Child Day Care Services*
1355 **ROWLAND AVENUE ELEMENTARY SCHL**...*Schoo*
1355 **ROWLAND AVENUE ELEMENTARY SCHL**...*Schoo*
1355 **SCHOOLWIRES**...*Nonclassified Establishm*
1651 **TRI-COMMUNITY ADULT SCHOOL**...*Education*
1651 **TRI-COMMUNITY ADULT SCHOOL**...*Nonprofit*
1751 **LIONEL MABASA STATE FARM AGCY**...*Credit*
1751 **LIONEL MABASA STATE FARM AGCY**...*Insura*
1751 **MATT DAVENPORT STATE FARM INS**...*Insura*
1941 **TRAWEEK INTERMEDIATE SCHOOL**...*Schoolsu*
1941 **TRAWEEK INTERMEDIATE SCHOOL**...*Schools<*

2018 EAST PIONEER DRIVE

SOURCE: DIGITAL BUSINESS DIRECTORY

STREET NOT LISTED...

2012 EAST ROWLAND AVENUE
SOURCE: DIGITAL BUSINESS DIRECTORY

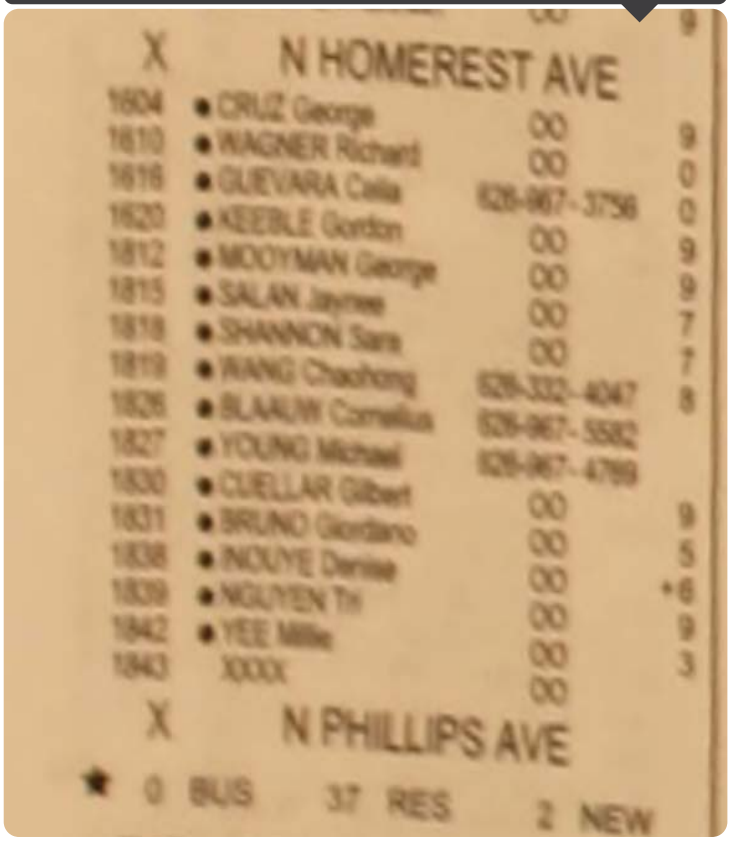
1355 **ROWLAND AVENUE ELEMENTARY SCHL**...*Schoo*
1651 **TRI-COMMUNITY ADULT SCHOOL**...*Education*
1751 **EASTLAND MEDICAL GROUP INC**...*Physician*
1751 **LIONEL MABASA STATE FARM AGCY**...*Insura*
1818 **ROCKVIEW DAIRY**...*Dairies [milk]*

2012 EAST PIONEER DRIVE
SOURCE: DIGITAL BUSINESS DIRECTORY

STREET NOT LISTED...

2006
SOURCE: HAINES

EAST PIONEER DRIVE



X N HOMEREST AVE

1604 ● CRUZ George 00 9
1610 ● WAGNER Richard 00 9
1616 ● GUEVARA Celia 626-967-3756 00 0
1620 ● KEEBLE Gordon 00 0
1812 ● MOOYMAN George 00 9
1815 ● SALAN Jaymee 00 9
1818 ● SHANNON Sara 00 7
1819 ● WANG Chaohong 626-332-4047 00 7
1826 ● BLAAUW Cornelius 626-967-5582 00 8
1827 ● YOUNG Michael 626-967-4789
1830 ● CUELLAR Gilbert 00
1831 ● BRUNO Giordano 00 9
1838 ● INOUYE Denise 00 5
1839 ● NGUYEN Tri 00 *6
1842 ● YEE Millie 00 9
1843 XXXX 00 3

X N PHILLIPS AVE

★ 0 BUS 37 RES 2 NEW

2006
SOURCE: HAINES

EAST ROWLAND AVENUE

1555 GERNET Wm E 626-339-8548

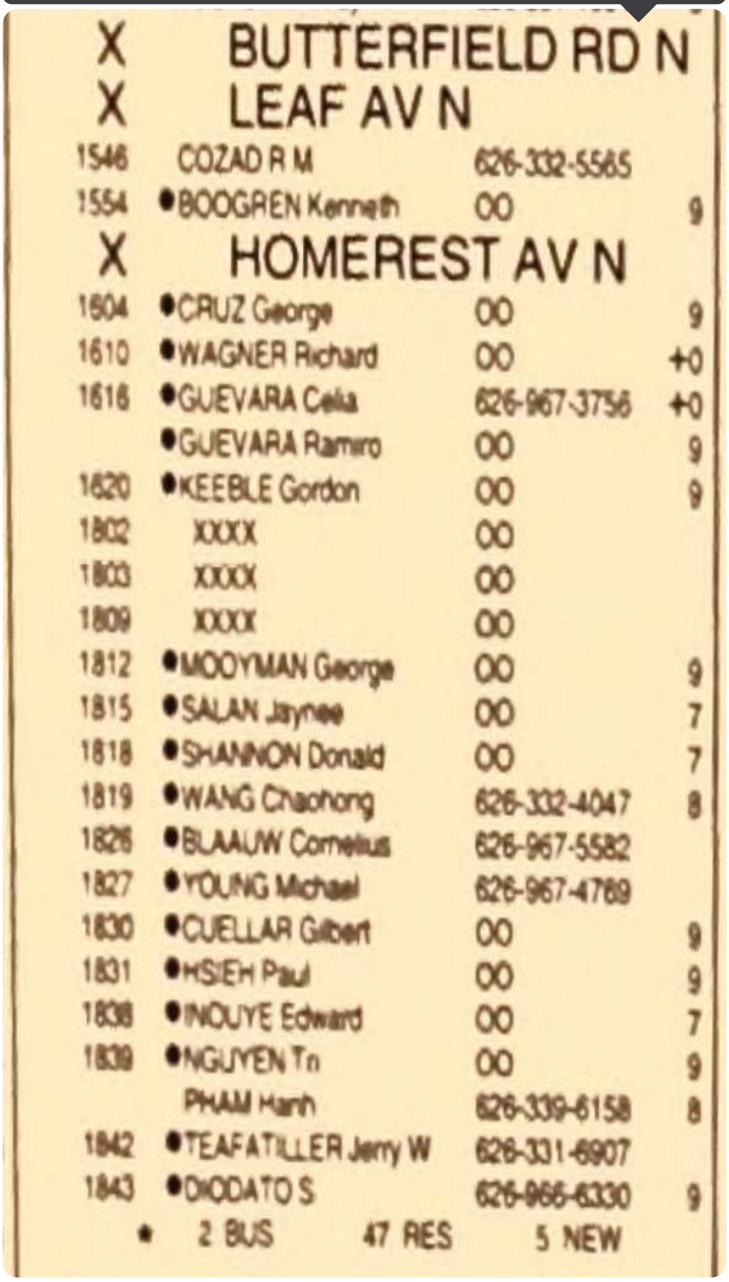
X N HOMEREST AVE

1605 ● KHEIV Ly 00 9
1606 ● DELGADO John 00 2
1609 XXXX 00
1612 ● BALLAR Marbel 00 1
1616 ● COSSEY Stephen A 626-339-2632
1621 ● KRISOR Thomas 00 7
1628 ● SHELLMAN Dennis 00 7
1634 ● DELGADO Mark 00 3
1638 ● SANTOS Raymond 00 7
1644 ● YOUNG Harry 00 3
1650 ● MILANO George 00 9
1751 ★ RANDALL KATHY STATE FARM INS 626-653-7700 4

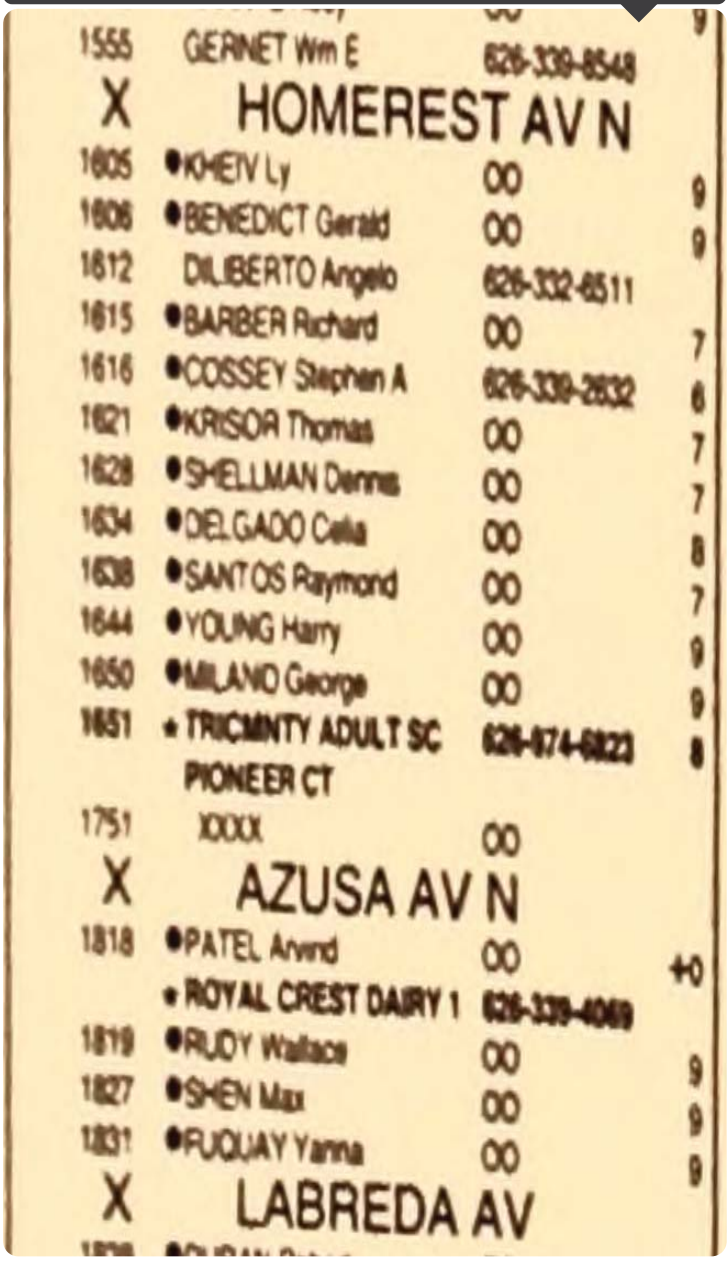
X N AZUSA AVE

1818 ★ ROCKVIEW DAIRY 626-339-4069 1
1819 ● RUDY Wallace 00 9
1827 ● SHEN Max 00 9
1831 ● LOPEZ Francisco 00 9

X N LA BREDA AVE



X BUTTERFIELD RD N
X LEAF AV N
1546 COZAD R M 626-332-5565
1554 ●BOOGREN Kenneth OO 9
X HOMEREST AV N
1604 ●CRUZ George OO 9
1610 ●WAGNER Richard OO +0
1616 ●GUEVARA Celia 626-967-3756 +0
●GUEVARA Ramiro OO 9
1620 ●KEEBLE Gordon OO 9
1802 XXXX OO
1803 XXXX OO
1809 XXXX OO
1812 ●MOOYMAN George OO 9
1815 ●SALAN Jaynee OO 7
1818 ●SHANNON Donald OO 7
1819 ●WANG Chaohong 626-332-4047 8
1826 ●BLAAUW Cornelius 626-967-5582
1827 ●YOUNG Michael 626-967-4769
1830 ●CUELLAR Gilbert OO 9
1831 ●HSIEH Paul OO 9
1838 ●INOUYE Edward OO 7
1839 ●NGUYEN Tn OO 9
PHAM Hanh 626-339-6158 8
1842 ●TEAFATILLER Jerry W 626-331-6907
1843 ●DIODATO S 626-966-6330 9
★ 2 BUS 47 RES 5 NEW



1555 GERNET Wm E 626-339-8548 9
X HOMEREST AV N
1605 ●KHEIV Ly OO 9
1608 ●BENEDICT Gerald OO 9
1612 DILIBERTO Angelo 626-332-6511
1615 ●BARBER Richard OO 7
1616 ●COSSEY Stephen A 626-339-2632 6
1621 ●KRISOR Thomas OO 7
1628 ●SHELLMAN Dennis OO 7
1634 ●DELGADO Celia OO 8
1638 ●SANTOS Raymond OO 7
1644 ●YOUNG Harry OO 9
1650 ●MILANO George OO 9
1651 ● TRICMNTY ADULT SC 626-974-6823 8
PIONEER CT
1751 XXXX OO
X AZUSA AV N
1818 ●PATEL Arvind OO +0
● ROYAL CREST DAIRY 1 626-339-4069
1819 ●RUDY Wallace OO 9
1827 ●SHEN Max OO 9
1831 ●FUQUAY Yanna OO 9
X LABREDA AV

1994-95 EAST PIONEER DRIVE

SOURCE: HAINES

1546	●COZAD R M	332-5565	
1554	●BOOGREN Kenneth	00	
1604	●PETTY Wm	339-2774	
1610	JARBOE Chas L	339-7025	
1616	XXXX	00	
1620	●KEEBLE Gordon	00	
1802	XXXX	00	
1803	XXXX	00	
1809	XXXX	00	
1815	●SALAN Jaynee R	00	
1818	●SHANNON Donald	00	
	★WORLD BUS INVSTMNTS	332-2296	1
1819	●WANG Chie Cha	00	
1826	●BLAAUW Cornelius	967-5582	
1827	●YOUNG Michael	967-4769	6
1830	●CUELLAR Gilbert	00	
1831	XXXX	00	
1838	●INOUYE Edward	00	
1839	●NGUYEN Tri M	00	
1842	●TEAFATILLER Jerry W	331-6907	6
1843	●SLATER H E	00	

★ 1 BUS 45 RES 0 NEW

1994-95 EAST ROWLAND AVENUE

SOURCE: HAINES

1550	XXXX	332-3550	+4
1555	●GERNET Wm E	00	
1605	●BAUGHMAN Ken	339-8548	
1606	●BENEDICT Gerald	332-7108	
1609	●CLAUDIUS Robt H	331-9501	
1612	●DILIBERTO Angelo	331-2738	
1615	●BARBER Richard	332-6511	
1616	●COSSEY Stephen	00	
1621	●KRISOR Thomas	332-2591	3
1622	●OLIVAS Rose	00	
1628	●SHELLMAN Dennis	00	
1634	●DELGADO Celia	00	
1638	●CHUA Ricardo	00	
1644	●YOUNG Harry	332-3967	2
1650	●MILANO Geo	00	
1651	★TRI CMNTY ADULT SC	915-4171	
1751	★PENNYSAVER DISPLAY	966-8485	
1818	★ROYAL CREST DAIRY 1	915-1781	7
1819	●RUDY Wallace	339-4069	
1827	●SHEN Max	00	
1831	●FUQUAY Yanna	00	
1838	●DURICKA John A	00	
1839	●CHEN Xaio	339-4606	
1843	●PEREGOY Kirk	331-0966	2
1902	●GARIBAY Antonio	00	
1926	●FERRARA Elaine	00	
1941	★COVINA VLY SC TRWK	331-0102	
1942	●JAROSZ Jeff	966-6433	

★ 7 BUS 69 RES 4 NEW

1990-91 EAST PIONEER DRIVE

SOURCE: HAINES

1546	COZAD R M	00	
1604	PETTY Wm	332-5565	
1610	JARBOE Chas L	339-2774	
1616	XXXX	339-7025	
1802	XXXX	00	
1803	XXXX	00	
1809	XXXX	00	
1818	SHANNON Don	00	
1819	MOON Donald E	332-0787	
1826	BLAAUW Cornelius	331-6668	8
1827	YOUNG Michael	967-5582	
1830	XXXX	967-4769	6
1831	XXXX	00	
1838	XXXX	00	
1839	NGUYEN Tri	00	
1842	TEAFATILLER Jerry W	331-6717	+0
		331-6907	6
	* 0 BUS 34 RES	2 NEW	

1990-91 EAST ROWLAND AVENUE

SOURCE: HAINES

1550	XXXX	00	
1555	GERNET Wm E	339-8548	
1605	BAUGHMAN Ken	332-7108	2
1606	BENEDICT Gerald	331-9501	
1609	CLAUDIUS Robt H	331-2738	
1612	DILIBERTO Angelo	332-6511	
1616	BROWN Bobby	339-8522	
1628	XXXX	00	
1634	XXXX	00	
1638	NG Beng Keng	331-2350	8
1650	MILANO Geo	915-4171	4
1651	*TRI CMNTY ADULT SC	966-8485	
1751	*PENNYSAVER DISPLAY	915-1781	7
	*PENNYSAVER READER	915-2631	7
1818	*ROYAL CREST DAIRY 1	339-4069	
1827	LUPIANI Edward J	332-7226	
1838	DURICKA John A	339-4606	
1843	NORRIGAN Maria	919-2792	+0
	NORRIGAN Oscar	919-2792	
1902	*ALL POINTS LAWN SRV	332-5298	
1926	XXXX	00	
1941	*COVINA VLY INTMD SC	331-0102	4
1942	JAROSZ Jeff	966-6433	
	* 8 BUS 58 RES	7 NEW	

1986 EAST PIONEER DRIVE

SOURCE: HAINES

1546	COZAD R M	332-5565	
1604	PETTY WM	339-2774	0
1610	JARBOE CHAS L	339-7025	
1616	XXXX	00	
1802	ONDATJE D	967-7875	1
1803	XXXX	00	
1809	MCDONALD YVONNE M	331-1720	+6
1814	XXXX	00	
1815	XXXX	00	
1818	SHANNON DON	332-0787	
1826	BLAAUW CORNELIUS	967-5582	
1827	YOUNG MICHAEL	967-4769	+6
1830	XXXX	00	
1831	BROER JERRY	332-9470	2
	WESTERMANBROER S K	332-9470	3
1838	XXXX	00	
1839	XXXX	00	
1842	TEAFATILLER JERRY W	331-6907	+6

★ 1 BUS 37 RES 4 NEW

1986 EAST ROWLAND AVENUE

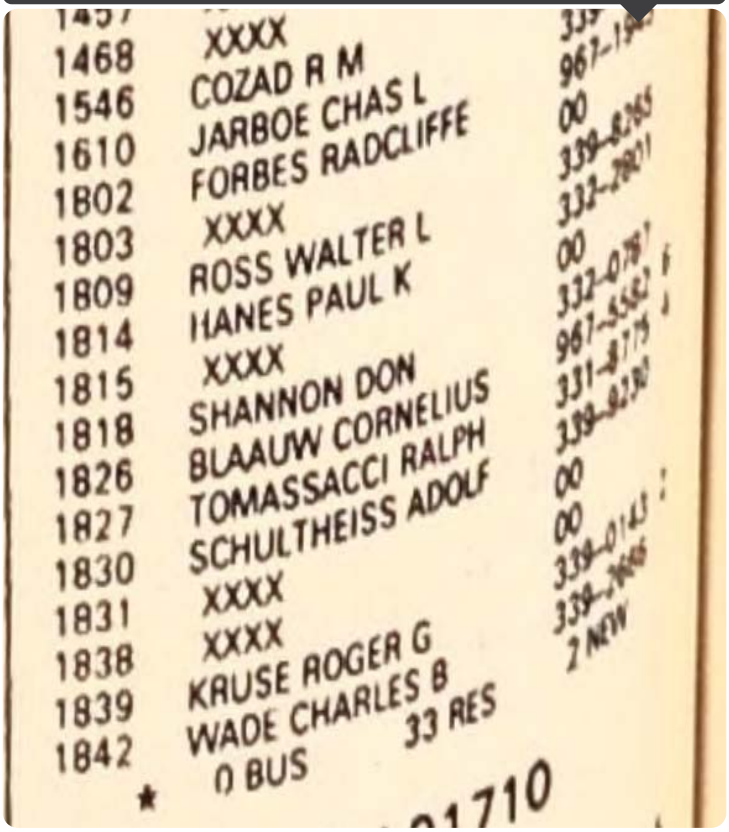
SOURCE: HAINES

1555	GERNET WM E	339-8548	
1605	BAUGHMAN KEN	332-7108	2
1606	BENEDICT GERALD	331-9501	
1609	CLAUDIUS ROBT H	331-2738	
1612	DILIBERTO ANGELO	332-6511	
1616	BROWN BOBBY	339-8522	
1621	XXXX	00	
1622	XXXX	00	
1628	SHELLMAN PERRY F	332-2274	
1634	DELGADO MARK J	966-3730	+6
1638	XXXX	00	
1650	MILANO GEO	915-4171	4
1651	★TRI CMNTY ADULT SC	966-8485	
1750	XXXX	00	
1813	XXXX	00	
1818	★ROYAL CREST DAIRY 1	339-4069	9
1819	XXXX	00	
1827	LUPIANI EDWARD J	332-7226	
1838	DURICKA JOHN A	339-4606	
1839	XXXX	00	
1843	XXXX	00	
1902	★ALL POINTS LAWN SV	332-5298	8
1926	FERRARA B	966-9838	0
1941	★COVINA VLY SC INTMD	331-0102	4
1942	JAROSZ JEFF	966-6433	
1948	XXXX	00	

★ 6 BUS 84 RES 4 NEW

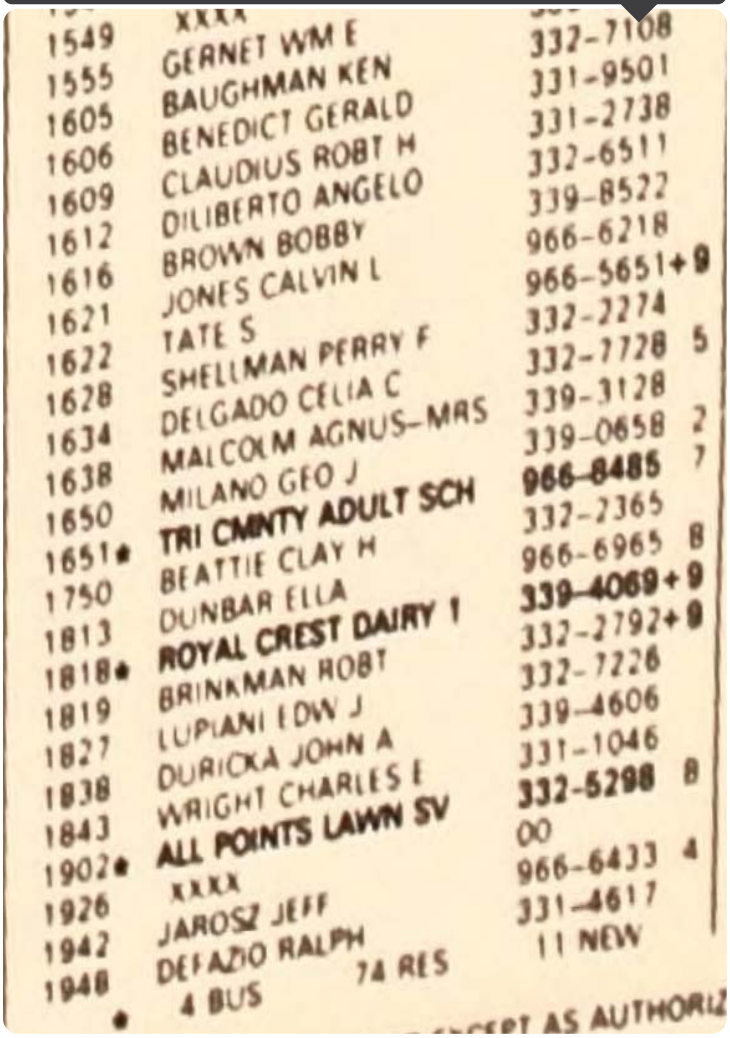
1979 EAST PIONEER DRIVE

SOURCE: HAINES



1979 EAST ROWLAND AVENUE

SOURCE: HAINES



1975 — EAST PIONEER DRIVE

SOURCE: HAINES

1457	[illegible]	332-[illegible]
1468	DICKERSON C	
1546	COZAD R M	00
1554	XXXX	00
1604	XXXX	339-7025
1610	JARBOE CHAS L	00
1616	XXXX	00
1620	XXXX	967-1945 4
1802	FORBES RADCLIFFE	00
1803	XXXX	339-8265
1809	ROSS WALTER L	332-2801
1814	HANES PAUL K	966-5626 4
1815	SALAN CRAIG	332-0787
1818	SHANNON DON	00
1819	XXXX	00
1826	XXXX	331-8775 4
1827	TOMASSACCI RALPH	339-9230
1830	SCHULTHEISS ADOLF	339-2922
1831	MESSINA J ANTHONY	332-0941
1838	PEMBERTON T C	339-0143 2
1839	KRUSE ROGER G	339-2666
1842	WADE CHAS B	1 NEW
	# 1 BUS 36 RES	

1975 — EAST ROWLAND AVENUE - A

SOURCE: HAINES

1521	SEYBOLD JAS	00
1526	XXXX	339-9238
1527	STAHR WM G	331-5293 3
1538	CONNELLY J H	967-3001•5
1549	•VALLEY FIRE PRTCTN	339-8548
1555	GERNET WM E	332-7108
1605	BAUGHMAN KEN	

1975 — EAST ROWLAND AVENUE - B

SOURCE: HAINES

..ROWLAND AVE E 91791 CONT..

1606	BENEDICT GERALD	331-9501
1609	CLAUDIUS ROBT H	331-2738
1612	DILIBERTO ANGELO	332-6511
1615	XXXX	00
1616	BROWN BOBBY	339-8522
1621	JONES CALVIN L	966-6218
1622	XXXX	00
1628	SHELLMAN PERRY F	332-2274
1634	DELGADO CELIA C	332-7728+5
1638	MALCOLM AGNUS MRS	339-3128
1650	MILANO GEO J	339-0658 2
1750	BEATTIE CLAY H	332-2365
1813	THIBAULT GERMAIN	967-1310+5
1818	*ROYAL CREST DAIRY	339-4069
1827	LUPIANI EDW J	332-7226
1831	XXXX	00
1838	DURICKA JOHN A	339-4606
1843	WRIGHT CHAS E	331-1046
1902	COCHRAN JAS N	332-3876
1926	FERRARA B	966-9838
1942	JAROSZ JEFF	966-6433 4
1948	DEFAZIO RALPH	331-4617
	* 2 BUS 85 RES	11 NEW

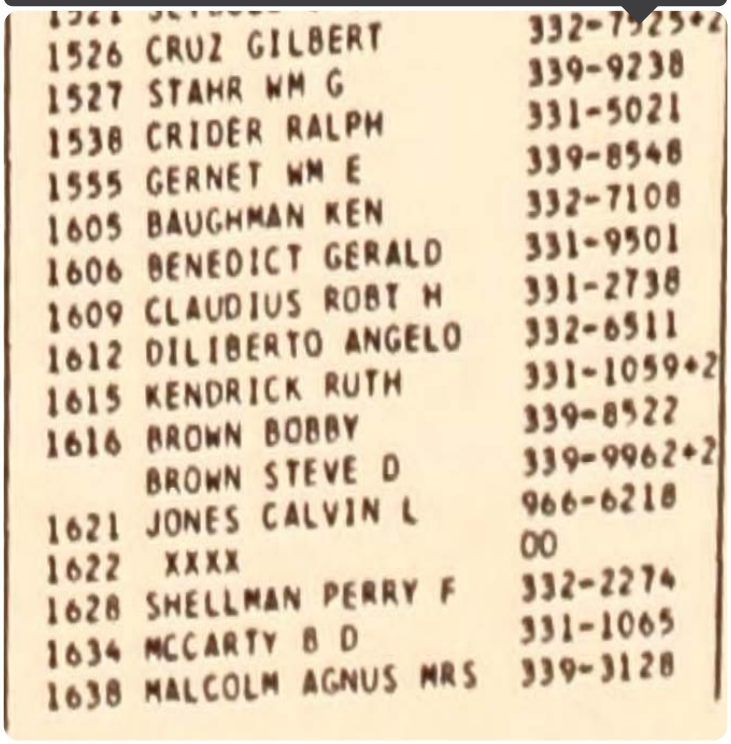
1972 — EAST PIONEER DRIVE

SOURCE: HAINES

1546	COZAD R M	331-3567
1554	OLSON WALLACE D	332-5565
1604	HOLMAN LAVAR C	332-2378
1610	JARBOE CHAS L	339-6414
1616	THORSON NANCY E	339-7025
	THORSON RALPH A	332-7321
1620	DUFFIELD RODERICK	332-4308
1802	XXXX	339-8127
1808	LANCEY TIMOTHY W	00
1809	ROSS WALTER L	339-0401+2
1814	HANES PAUL K	339-8265
1815	COLTER DAVIS	332-2801
1818	SHANNON DON	331-7151
1819	HARTLEY MILBERN E	332-0787
1826	CHENCHARICK JOHN	339-2986
1827	CISNEROS B	339-3166
1830	SCHULTHEISS ADOLF	332-5677+2
1831	MESSINA J ANTHONY	339-9230
1838	PEMBERTON T C	339-2922
1839	KRUSE ROGER G	332-0941
1842	WADE CHAS B	339-0143+2
	* 0 BUS 38 RES	339-2666
		4 NEW

1972 EAST ROWLAND AVENUE - A

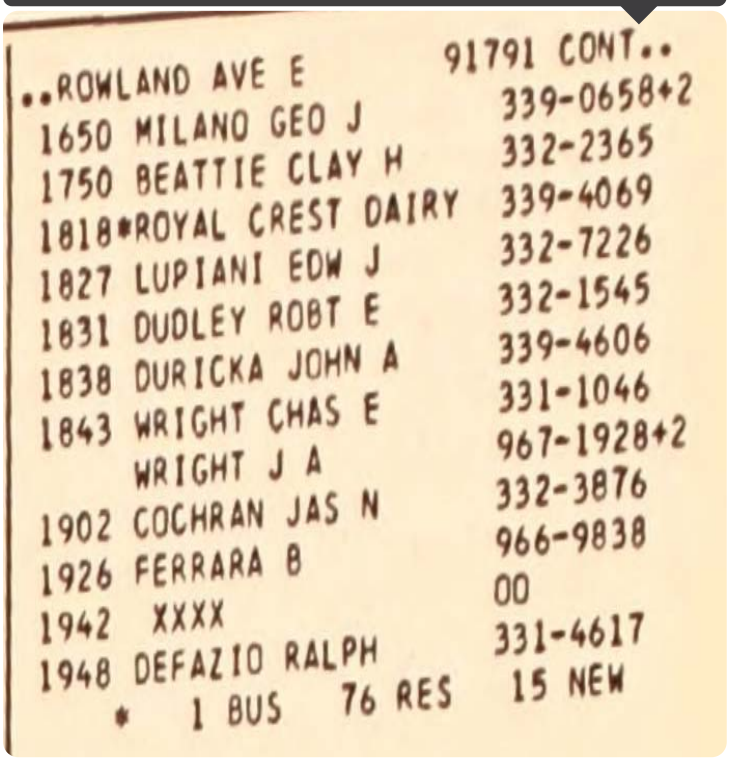
SOURCE: HAINES



1526 CRUZ GILBERT 332-7525+2
1527 STAHR WM G 339-9238
1538 CRIDER RALPH 331-5021
1555 GERNET WM E 339-8548
1605 BAUGHMAN KEN 332-7108
1606 BENEDICT GERALD 331-9501
1609 CLAUDIUS ROBT H 331-2738
1612 DILIBERTO ANGELO 332-6511
1615 KENDRICK RUTH 331-1059+2
1616 BROWN BOBBY 339-8522
BROWN STEVE D 339-9962+2
1621 JONES CALVIN L 966-6218
1622 XXXX 00
1628 SHELLMAN PERRY F 332-2274
1634 MCCARTY B D 331-1065
1638 MALCOLM AGNUS MRS 339-3128

1972 EAST ROWLAND AVENUE - B

SOURCE: HAINES



..ROWLAND AVE E 91791 CONT..
1650 MILANO GEO J 339-0658+2
1750 BEATTIE CLAY H 332-2365
1818*ROYAL CREST DAIRY 339-4069
1827 LUPIANI EDW J 332-7226
1831 DUDLEY ROBT E 332-1545
1838 DURICKA JOHN A 339-4606
1843 WRIGHT CHAS E 331-1046
WRIGHT J A 967-1928+2
1902 COCHRAN JAS N 332-3876
1926 FERRARA B 966-9838
1942 XXXX 00
1948 DEFAZIO RALPH 331-4617
* 1 BUS 76 RES 15 NEW

1966 EAST PIONEER DRIVE

SOURCE: STREET ADDRESS DIRECTORY

1468	DICKERSON	ED 25969
1546	COZAD, R M	ED 22378
1554	OLSON, W D	ED 96414
1604	HOLMAN, L C	ED 97025
1610	JARBOE, C L	ED 24308
1616	THORSON, R A	ED 98127
1620	DUFFIELD, R P	966-4724
1802	FUGUAY, L B	332-8698
1803	LABRIOLA, ANTHONY H	ED 24751
1808	KECK, T W	ED 98265
1809	ROSS, W L	

1966 EAST ROWLAND AVENUE

SOURCE: STREET ADDRESS DIRECTORY

1544	ANTOCI, M J	ED 15021
1549	SMITH, CHARLES E	ED 28115
1550	CALLAWAY, T E	331-0387
1555	STILWILL, J E	339-0801
1605	BAUGHMAN, KEN	ED 11547
1606	BENEDICT, G	332-7108
1609	CLAUDIUS, R M	331-9501
1612	DI LIBERTO, A	ED 12738
1615	KENDRICK, W O	332-6511
1621	JONES, CALVIN L	ED 11059
1622	SHER, EDWIN	966-6218
1628	SHELLMAN, P F	339-8520
1634	CRANDALL, R O	ED 22274
1638	HORNER, J W	ED 24742
1650	JOHNSON, ARMOND F	ED 93696
1750	BEATTIE, C H	332-6655
1818	ROYAL CREST DAIRY	ED 22365
1827	LUPIANI, E J	339-4069
1831	DUDLEY, ROBERT E	ED 27226
1838	DURICKA, J A	332-1545
1843	WRIGHT, CHARLES E	ED 94606
1902	COCHRAN, J N	331-1046
1926	RUMPH, M L	ED 23876
1942	FOLLIS, CAROL	ED 24668
1948	DE FAZIO, RALPH	331-4996
		331-4617

1962 EAST PIONEER DRIVE

SOURCE: STREET ADDRESS DIRECTORY

1462	DICKERSON, C	ED 25565
1468	COZAD, R M	ED 22378
1546	OLSON, W D	ED 96414
1554	HOLMAN, L C	ED 97025
1604	JARBOE, C L	ED 24308
1610	THORSON, R A	ED 98127
1616	DUFFIELD, R P	ED 28698
1620	SMITH, A N	ED 24751
1803	KECK, T W	ED 98265
1808	ROSS, W L	ED 22801
1809	HANES, P K	ED 93297
1814	BROWN, L	ED 21054
1815	PIKE, G R	ED 92986
1818	HARTLEY, M E	ED 23253
1819	BAXTER, H	ED 27834
1826	JOHNSON, P	ED 98285
1827	BLETHROAD, H E	ED 92922
1830	MESSINA, J A	ED 20941
1831	PETERSEN, C L	ED 26132
1838	ZUSMAN, L	ED 26922
1839	MAYER, J M	
1842		

1962 EAST ROWLAND AVENUE

SOURCE: STREET ADDRESS DIRECTORY

	[illegible]	ED 99238
1538	CRIDER, R	ED 15021
1544	ANTOCI, M J	ED 28115
1549	ROSS, G R	ED 91395
1550	CALLAWAY, T E	ED 12342
1555	STILWILL, J E	ED 11547
1605	ANSARY, B A	ED 12761
1609	CLAUDIUS, R H	ED 12738
1612	DI LIBERTO, A	332-6511
1615	KENDRICK, W O	ED 11059
1621	ESTABROOK, E	ED 13586
1622	GALCERAN, G E	ED 99027
1628	SHELLMAN, P F	ED 22274
1634	CRANDALL, R O	ED 24742
1638	HORNER, J W	ED 93696
1644	SMITH, J D	ED 95733
1650	MERRILL, L B	ED 24198
1750	BEATTIE, C H	ED 22365
1827	LUPIANI, E J	ED 27226
1831	CONANT, J W	ED 23533
1838	DURICKA, J A	ED 94606
1902	COCHRAN, J N	ED 23876
1926	RUMPH, M L	ED 24668
1942	FOLLIS, J L	331-4996

1951 EAST ROWLAND AVENUE

SOURCE: STREET ADDRESS DIRECTORY

ROWLAND AV, EAST (West Cov)
From North Vincent av, 2 n of Garvey

1018 Kosha Shigeru FL 2-1883
1440 Jobe Edwin O FL 2-2467
1503 Reed M M Mrs O
1518 Runyan W A O FL 2-2919
1520 McKibben Mary S
1601 Loomis E G O FL 2-2621
1628 Peelle E M FL 2-2124
1750 Beattie C H O FL 2-2365
1828 Varney C W jr O FL 2-3379
1902 Carl J W
Cochran J N O FL 2-3876
1942 Bashore Q E O FL 2-3475

1951 EAST PIONEER DRIVE

SOURCE: STREET ADDRESS DIRECTORY

STREET NOT LISTED

--- END REPORT ---

ENVIRONMENTAL RISK INFORMATION SERVICES

FIRE INSURANCE MAP RESEARCH RESULTS

Date: 11/15/2018

Order Number: 20181114114
Site Name: Pioneer School
Address: 1651 East Rowland Avenue, West Covina, CA, 91791

ERIS has searched our in-house collection of Fire Insurance Maps for the address at:
1651 East Rowland Avenue, West Covina, CA, 91791

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

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		20181114114p
Date Completed:		November 14, 2018
Project Number:		12064.003
Project Property:		Pioneer School 1651 East Rowland Avenue West Covina CA 91791
Coordinates:		
	Latitude:	34.080095
	Longitude:	-117.910065
	UTM Northing:	3771410.53812 Meters
	UTM Easting:	416035.13366 Meters
	UTM Zone:	UTM Zone 11S
	Elevation:	469.17 ft
	Slope Direction:	SW

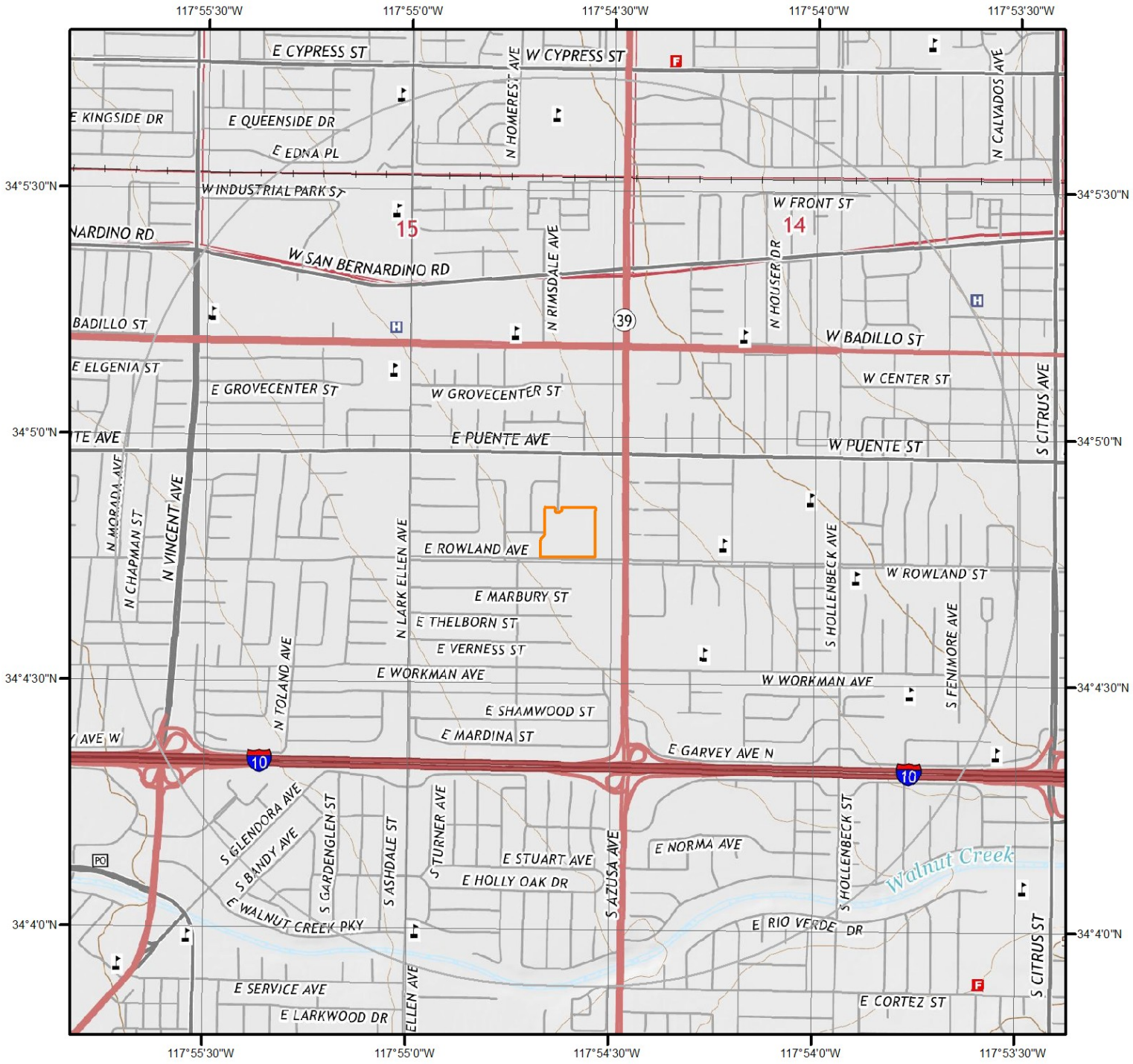
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas 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): Baldwin Park,CA

Source: USGS 7.5 Minute Topographic Map

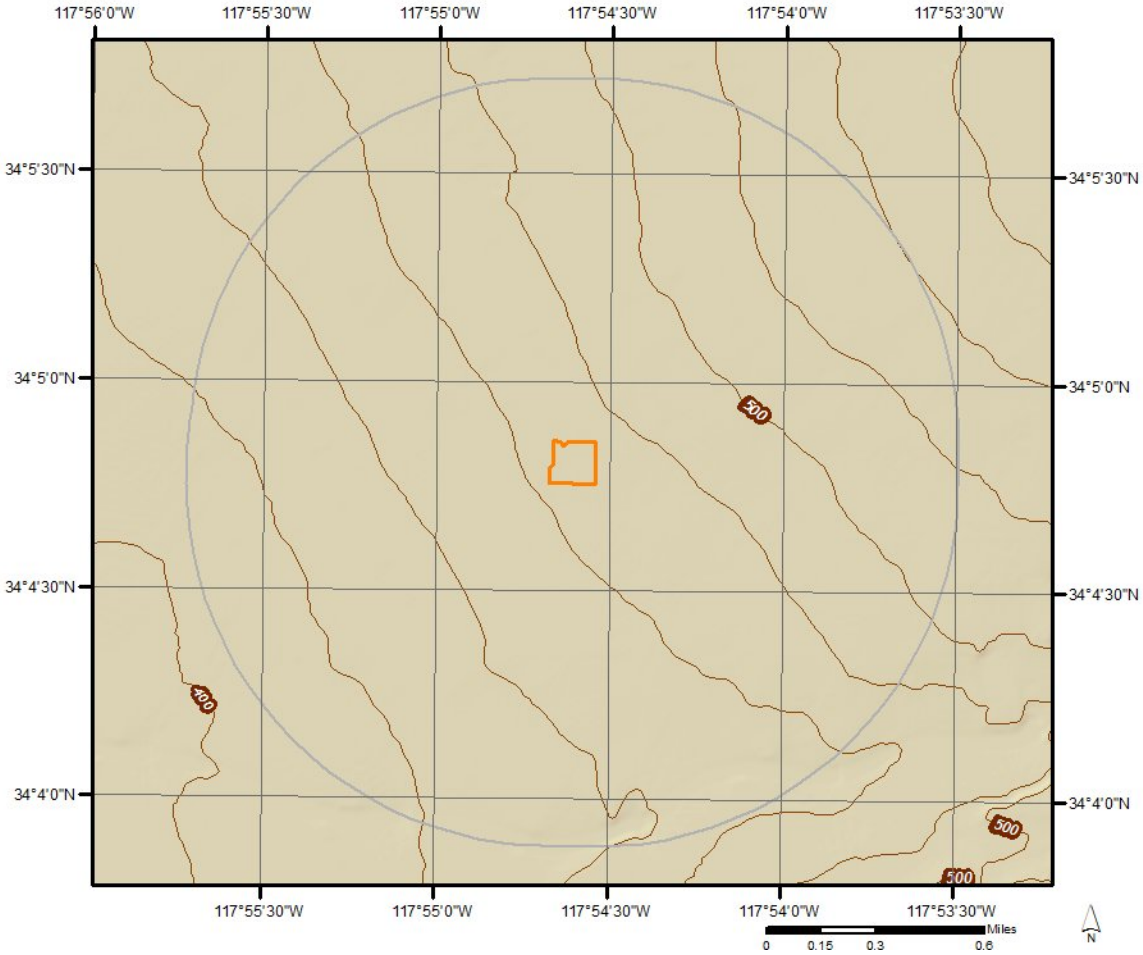
ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Topographic Information

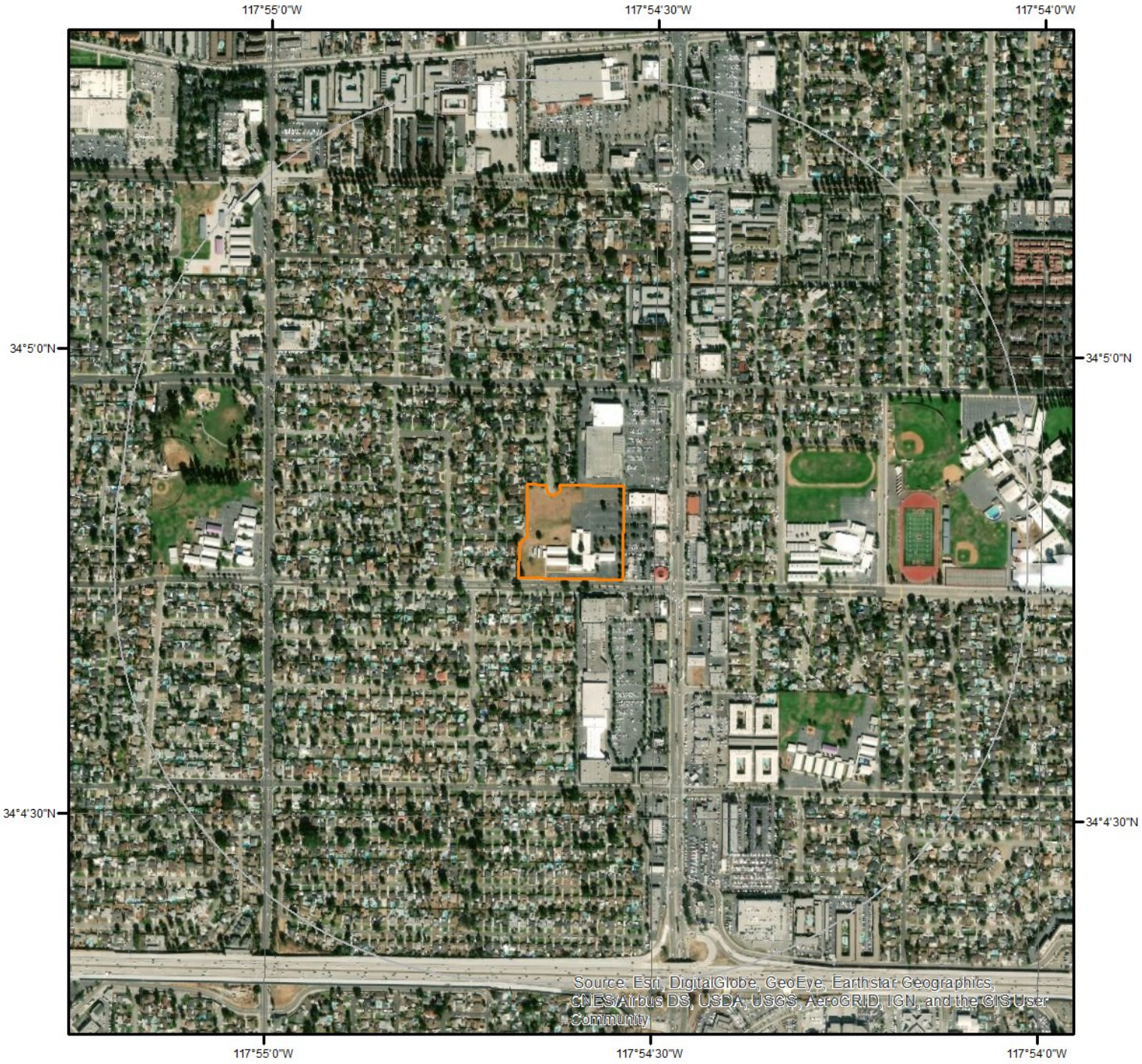
The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	469.17 ft
Slope Direction:	SW



Hydrologic Information



Wetland

0 0.075 0.15 0.3 Miles

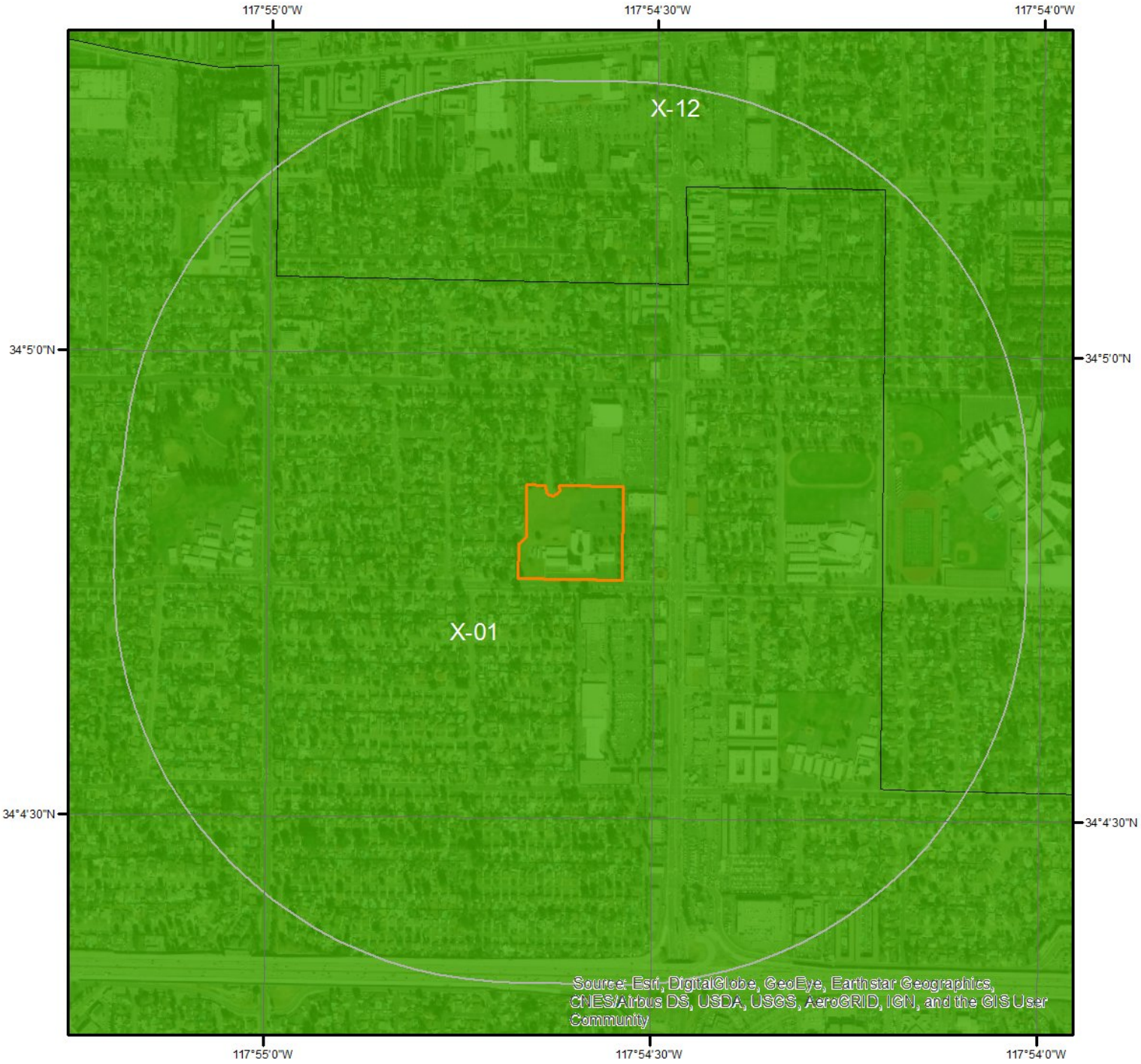
N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Hydrologic Information



Flood Hazard Zones

This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

Miles
0 0.125 0.25

N

06037C1700F

A	AH	VE	OPEN WATER
A99	AO	D	NOT POPULATED
AE	V	X	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:	06037C1700F(effective:2008-09-26)

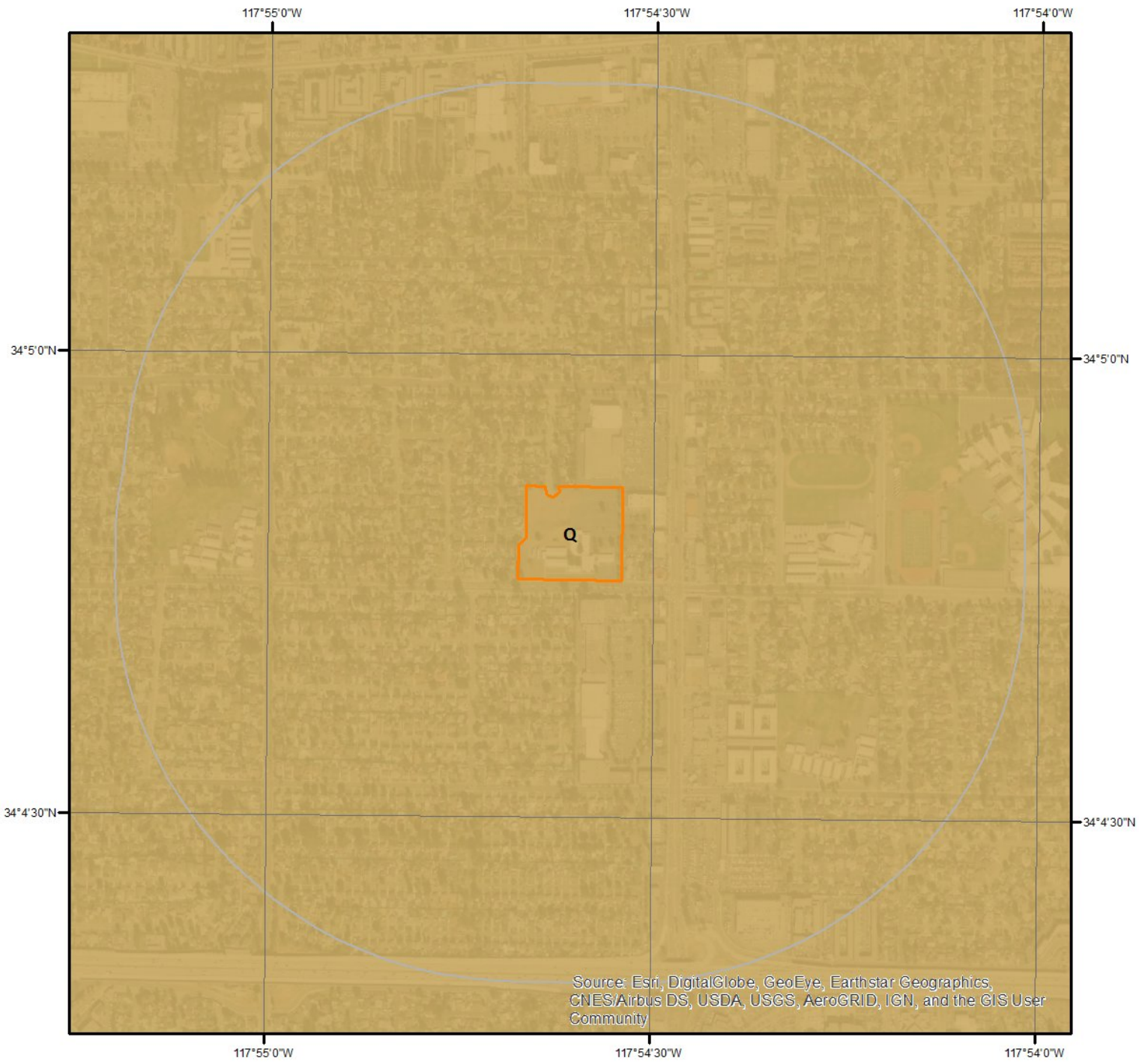
Flood Zone X-01

Zone:	X
Zone subtype:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

Geologic Information



0 0.2 0.4 Miles N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

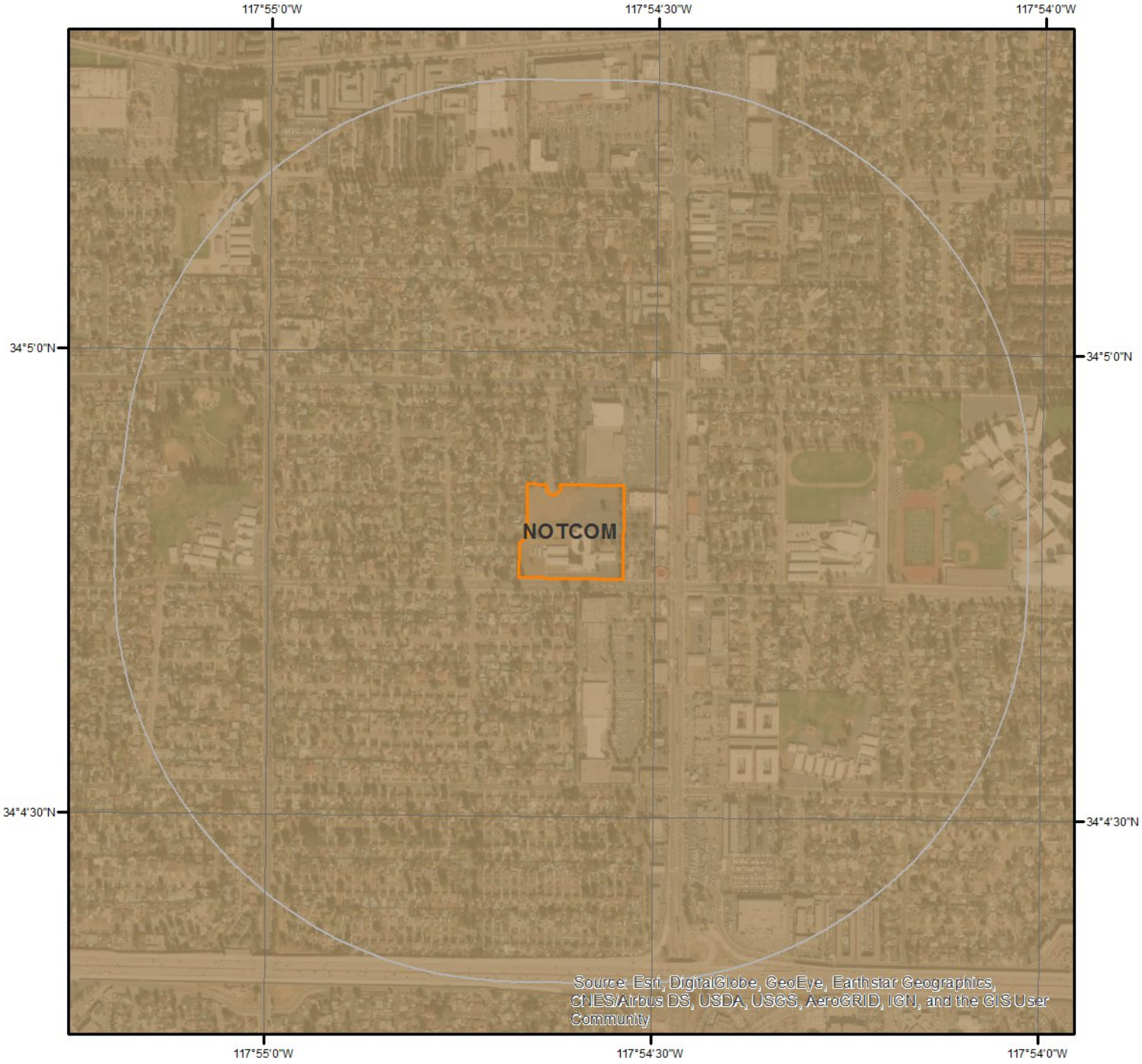
Geologic Information

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.

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Soil Information

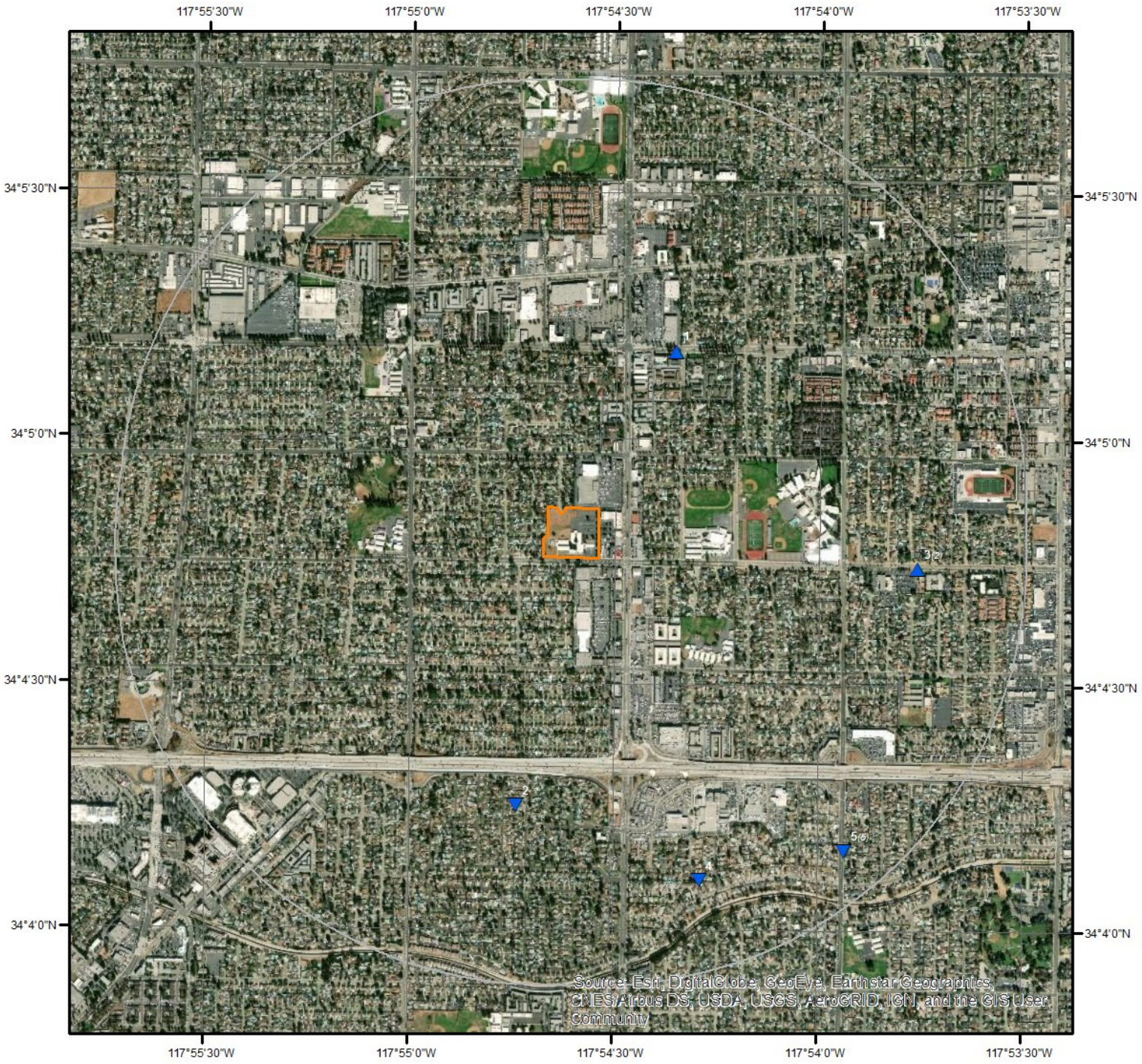
The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

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
3	CA1900661	3,936.45	E

Safe Drinking Water Information System (SDWIS)

Map Key	PWS ID	Distance (ft)	Direction
3	CA1900661	3,936.45	E

USGS National Water Information System

Map Key	Monitoring Loc Identifier	Distance (ft)	Direction
2	USGS-340415117544101	3,091.70	SSW
4	USGS-340406117541401	4,175.89	SSE

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Public Water Supply Wells

Map Key	WCR No	Distance (ft)	Direction
5	WCR1983-006760	4,726.23	SE
5	WCR1982-006444	4,726.23	SE
5	WCR1983-006759	4,726.23	SE
5	WCR1776-007732	4,726.23	SE
5	WCR1982-005494	4,726.23	SE

Water Wells

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
3	E	0.75	3,936.45	505.19	PWSV

Address Line 2: 374 E ROWLAND AVE
State Code: CA
Zip Code: 91722
City Name: COVINA
Address Line 1:
PWS ID: CA1900661
PWS Type Code: CWS
PWS Type Description: Community Water System
Primary Source Code: SWP
Primary Source Desc: Purchased Surface Water
PWS Activity Code: I
PWS Activity Description: Inactive
PWS Deactivation Date: 01/11/1993
Phone Number:

--Details--
Population Served Count: 123
City Served:
County Served:
State Served: CA
Zip Code Served:

Safe Drinking Water Information System (SDWIS)

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	E	0.75	3,936.45	505.19	SDWIS

PWS ID:	CA1900661	Pop Cat 11:	101-500
Facility ID:	1	Pop Cat 11 Cd:	2
Facility Name:	PRUCHASED	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:	01-NOV-93	Pop Cat 4 Cd:	1
Fac Deactvtn Dt:	01-NOV-93	Pop Cat 5:	<=500
First Rptd Dt:	22-MAR-79	Pop Cat 5 Cd:	1
Last Rptd Date:	24-JUL-95	ORG Name:	-
Primacy Agency:	California	Admin Name:	COVINA HIGHLANDS W/C
Is Source Ind:	Yes	Phone No:	-
Facility Type Cd:	CC	Phone Ext No:	-

Wells and Additional Sources Detail Report

Facility Type Desc:	Consecutive Connection	Alt Phone No:	-
Activity Status Cd:	I	Fax No:	-
Activity Status:	Inactive	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:	I	Fac Activity:	Inactive
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:	-	Owner Type:	Unknown Owner Type
PWS Type Code:	CWS	PWS Type:	Community water system
Primcy Agency Cd:	CA	Primacy Type:	State
Primary Source Cd:	SWP	Primary Srce:	Surface water purchased
Seller Treatmnt Cd:	U	Seller Trt Dsc:	Unknown
Submsn Status Cd:	Y	Sub Stat Dsc:	Reported and accepted
Subms Sts Cd Vio:	Y	Pop Srvd Cnt:	123
Is Grant Eligible:	No	Srvc Cnctn Cnt:	35
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:	No	State Fac ID:	-
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:	-

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	SSW	0.59	3,091.70	440.56	FED USGS

Wells and Additional Sources Detail Report

Organiz Identifier:	USGS-CA	Formation Type:	
Organiz Name:	USGS California Water Science Center	Aquifer Name:	California Coastal Basin aquifers
Well Depth:		Aquifer Type:	
Well Depth Unit:		Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	LOS ANGELES
Construction Date:		Latitude:	34.070843
Source Map Scale:	24000	Longitude:	-117.9122849
Monitoring Loc Name:	001S010W22G001S		
Monitoring Loc Identifier:	USGS-340415117544101		
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:			
Vertical Measure Unit:			
Vertical Accuracy:			
Vertical Accuracy Unit:			
Vertical Collection Mthd:			
Vert Coord Refer System:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	SSE	0.79	4,175.89	445.43	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:		Provider Name:	NWIS
W Hole Depth Unit:		County:	LOS ANGELES
Construction Date:		Latitude:	34.0683431
Source Map Scale:	24000	Longitude:	-117.9047846
Monitoring Loc Name:	001S010W23M005S		
Monitoring Loc Identifier:	USGS-340406117541401		
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:	
Vertical Measure Unit:	
Vertical Accuracy:	
Vertical Accuracy Unit:	
Vertical Collection Mthd:	
Vert Coord Refer System:	

Public Water Supply Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SE	0.90	4,726.23	456.42	PWSW

WCR No:	WCR1983-006760	Decimal Latitude:	34.069360
Legacy Log No:	229705	Decimal Longitude:	-117.898910
Permit Date:		Meth of Determ LL:	Derived from TRS
Permit No:		LL Accuracy:	Centroid of Section
Own Assign Well No:		Horizontal Datum:	
Name of Well Owner:		Ground Surf Elev:	
Planned Former Use:	Water Supply Public	Elevation Accuracy:	
APN:		Elev Determine Meth:	
Date Work Ended:	11/23/1983 0:00:00	Vertical Datum:	
Received Date:		Township:	01S
Well Location:	Delete this record	Range:	10W
City:		Section:	23
County Name:	Los Angeles	Baseline Meridian:	San Bernardino
Total Drill Depth:		Township Internal:	
Total Complete Dep:	660.000000	Range Internal:	
Top Perforated Int:	200	Section Internal:	
Bottom Perf Intvl:	620	Tract Internal:	
Casing Diameter:	30	Sequence Internal:	
Drilling Method:	Reverse Circulation	Baseline Merid Int:	
Fluid:	Not Available at Conversion	Decimal Lat Int:	
Static Water Level:		Decimal Long Int:	
Total Draw Down:		Meth of Det LL Int:	
Test Type:		LL Accuracy Intern:	
Pump Test Length:		Horiz Datum Int:	
Well Yield:	2600	Grnd Surf Elev Int:	
Well Yield Unit:	GPM	Ele Accuracy Int:	

GW Basin:		Elev Det Meth Int:	
Mat Type Summary:		Vertical Datum Int:	
Attachment Info:			
Region Office:	DWR Southern Region Office		
Local Permit Agency:	LA County Department of Public Health, Department of Health Services, Drinking Water Program		
Record Type:	WellCompletion/New/Production or Monitoring/NA		
Workflow Status:			
Other Observations:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SE	0.90	4,726.23	456.42	PWSW

WCR No:	WCR1982-006444	Decimal Latitude:	34.069360
Legacy Log No:	3633	Decimal Longitude:	-117.898910
Permit Date:		Meth of Determ LL:	Derived from TRS
Permit No:		LL Accuracy:	Centroid of Section
Own Assign Well No:		Horizontal Datum:	
Name of Well Owner:		Ground Surf Elev:	
Planned Former Use:	Water Supply Public	Elevation Accuracy:	
APN:		Elev Determine Meth:	
Date Work Ended:	8/12/1982 0:00:00	Vertical Datum:	
Received Date:		Township:	01S
Well Location:	RIO VERDE DR, HOLLENBECK ST	Range:	10W
City:		Section:	23
County Name:	Los Angeles	Baseline Meridian:	San Bernardino
Total Drill Depth:		Township Internal:	
Total Complete Dep:	582.000000	Range Internal:	
Top Perforated Int:	0	Section Internal:	
Bottom Perf Intvl:	582	Tract Internal:	
Casing Diameter:	46	Sequence Internal:	
Drilling Method:	Reverse Circulation	Baseline Merid Int:	
Fluid:	Not Available at Conversion	Decimal Lat Int:	
Static Water Level:		Decimal Long Int:	
Total Draw Down:		Meth of Det LL Int:	
Test Type:		LL Accuracy Intern:	
Pump Test Length:		Horiz Datum Int:	
Well Yield:	2021	Grnd Surf Elev Int:	
Well Yield Unit:	GPM	Ele Accuracy Int:	
GW Basin:		Elev Det Meth Int:	
Mat Type Summary:		Vertical Datum Int:	
Attachment Info:			
Region Office:	DWR Southern Region Office		
Local Permit Agency:	LA County Department of Public Health, Department of Health Services, Drinking Water Program		
Record Type:	WellCompletion/New/Production or Monitoring/NA		
Workflow Status:			
Other Observations:			

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SE	0.90	4,726.23	456.42	PWSW

WCR No:	WCR1983-006759	Decimal Latitude:	34.069360
Legacy Log No:	229704	Decimal Longitude:	-117.898910
Permit Date:		Meth of Determ LL:	Derived from TRS
Permit No:		LL Accuracy:	Centroid of Section
Own Assign Well No:	Plant 126 Well 2	Horizontal Datum:	
Name of Well Owner:		Ground Surf Elev:	
Planned Former Use:	Water Supply Public	Elevation Accuracy:	
APN:		Elev Determine Meth:	
Date Work Ended:	11/23/1983 0:00:00	Vertical Datum:	
Received Date:	11/2/2015 0:00:00	Township:	01S
Well Location:	E Rio Verde DR	Range:	10W
City:	West Covina	Section:	23
County Name:	Los Angeles	Baseline Meridian:	San Bernardino
Total Drill Depth:		Township Internal:	
Total Complete Dep:	660.000000	Range Internal:	
Top Perforated Int:	200	Section Internal:	
Bottom Perf Intvl:	620	Tract Internal:	
Casing Diameter:	18	Sequence Internal:	
Drilling Method:	Reverse Circulation	Baseline Merid Int:	
Fluid:	Not Available at Conversion	Decimal Lat Int:	
Static Water Level:	183	Decimal Long Int:	
Total Draw Down:	183	Meth of Det LL Int:	
Test Type:	Pump	LL Accuracy Intern:	
Pump Test Length:	73.5	Horiz Datum Int:	
Well Yield:	2600	Grnd Surf Elev Int:	
Well Yield Unit:	GPM	Ele Accuracy Int:	
GW Basin:		Elev Det Meth Int:	
Mat Type Summary:		Vertical Datum Int:	
Attachment Info:			
Region Office:	DWR Southern Region Office		
Local Permit Agency:	LA County Department of Public Health, Department of Health Services, Drinking Water Program		
Record Type:	WellCompletion/New/Production or Monitoring/NA		
Workflow Status:			
Other Observations:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SE	0.90	4,726.23	456.42	PWSW

WCR No:	WCR1776-007732	Decimal Latitude:	34.069360
Legacy Log No:		Decimal Longitude:	-117.898910
Permit Date:		Meth of Determ LL:	Derived from TRS
Permit No:		LL Accuracy:	Centroid of Section

Wells and Additional Sources Detail Report

Own Assign Well No:		Horizontal Datum:	
Name of Well Owner:		Ground Surf Elev:	
Planned Former Use:	Water Supply Public	Elevation Accuracy:	
APN:		Elev Determine Meth:	
Date Work Ended:		Vertical Datum:	
Received Date:		Township:	01S
Well Location:	HOLLENBECK, RIO VERDE	Range:	10W
City:		Section:	23
County Name:	Los Angeles	Baseline Meridian:	San Bernardino
Total Drill Depth:		Township Internal:	
Total Complete Dep:		Range Internal:	
Top Perforated Int:		Section Internal:	
Bottom Perf Intvl:		Tract Internal:	
Casing Diameter:		Sequence Internal:	
Drilling Method:		Baseline Merid Int:	
Fluid:		Decimal Lat Int:	
Static Water Level:		Decimal Long Int:	
Total Draw Down:		Meth of Det LL Int:	
Test Type:		LL Accuracy Intern:	
Pump Test Length:		Horiz Datum Int:	
Well Yield:		Grnd Surf Elev Int:	
Well Yield Unit:		Ele Accuracy Int:	
GW Basin:		Elev Det Meth Int:	
Mat Type Summary:		Vertical Datum Int:	
Attachment Info:			
Region Office:	DWR Southern Region Office		
Local Permit Agency:	LA County Department of Public Health, Department of Health Services, Drinking Water Program		
Record Type:	WellCompletion/New/Production or Monitoring/NA		
Workflow Status:			
Other Observations:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SE	0.90	4,726.23	456.42	PWSW

WCR No:	WCR1982-005494	Decimal Latitude:	34.069360
Legacy Log No:	3633	Decimal Longitude:	-117.898910
Permit Date:		Meth of Determ LL:	Derived from TRS
Permit No:		LL Accuracy:	Centroid of Section
Own Assign Well No:		Horizontal Datum:	
Name of Well Owner:		Ground Surf Elev:	
Planned Former Use:	Water Supply Public	Elevation Accuracy:	
APN:		Elev Determine Meth:	
Date Work Ended:	8/12/1982 0:00:00	Vertical Datum:	
Received Date:		Township:	01S
Well Location:	HOLLENBECK ST & RIO VERDE DR	Range:	10W
City:	West Covina	Section:	23

Wells and Additional Sources Detail Report

County Name:	Los Angeles	Baseline Meridian:	San Bernardino
Total Drill Depth:		Township Internal:	
Total Complete Dep:	582.000000	Range Internal:	
Top Perforated Int:	0	Section Internal:	
Bottom Perf Intvl:	582	Tract Internal:	
Casing Diameter:	18	Sequence Internal:	
Drilling Method:	Reverse Circulation	Baseline Merid Int:	
Fluid:	Not Available at Conversion	Decimal Lat Int:	
Static Water Level:		Decimal Long Int:	
Total Draw Down:		Meth of Det LL Int:	
Test Type:		LL Accuracy Intern:	
Pump Test Length:		Horiz Datum Int:	
Well Yield:	2021	Grnd Surf Elev Int:	
Well Yield Unit:	GPM	Ele Accuracy Int:	
GW Basin:		Elev Det Meth Int:	
Mat Type Summary:		Vertical Datum Int:	
Attachment Info:			
Region Office:	DWR Southern Region Office		
Local Permit Agency:	LA County Department of Public Health, Department of Health Services, Drinking Water Program		
Record Type:	WellCompletion/New/Production or Monitoring/NA		
Workflow Status:			
Other Observations:			

Well Investigation Program Case List

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	NNE	0.41	2,154.68	498.25	WIP

File No:	108.1666	NFA Date:	1/1/96
Status:	Historical	NFA Type:	PIQ
NFA Joint Date:	6/28/96	NFA Joint:	Yes
NFA Type Desc:	NFA FROM PRE-INSPECTION QUESTIONNAIRE		

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

Appendix

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.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

Your Liability for misuse: Using this Service and/or its reports in a manner contrary to this Notice or your agreement will be in breach of copyright and contract and ERIS may obtain damages for such mis-use, including damages caused to third parties, and gives ERIS the right to terminate your account, rescind your license to any previous reports and to bar you from future use of the Service.

No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc. ("ERIS") using various sources of information, including information provided by Federal and State government departments. The report applies only to the address and up to the date specified on the cover of this report, and any alterations or deviation from this description will require a new report. This report and the data contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein and does not constitute a legal opinion nor medical advice. Although ERIS has endeavored to present you with information that is accurate, ERIS Information Inc. 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.

Trademark and Copyright: You may not use the ERIS trademarks or attribute any work to ERIS other than as outlined above. This Service and Report(s) are protected by copyright owned by ERIS Information Inc. Copyright in data used in the Service or Report(s) (the "Data") is owned by ERIS or its licensors. The Service, Report(s) and Data may not be copied or reproduced in whole or in any substantial part without prior written consent of ERIS.

APPENDIX G

LABORATORY REPORT

Leighton

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: June 27, 2018

Mr. Zach Freeman
Leighton & Associates, Inc.
10532 Acacia, Suite B-6
Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com

Project: **12064.001**
Lab I.D.: **180626-9 through -62**

Dear Mr. Freeman:

The **analytical results** for the soil samples, received by our lab on June 26, 2018, are attached. The samples were received chilled, intact and with chain of custody record.

Trace concentrations between the MDL and the PQL have been reported with a "J" flag indicator.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manger

Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

EPA 6010B FOR TTLC-LEAD; PAGE 1 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	TTLC-LEAD RESULT	DF
GW5-0.5	180626-9	17.2	1
GW6-0.5	180626-11	13.1	1
GW7-0.5	180626-13	9.74	1
GW8-0.5	180626-15	22.6	1
PI7-0.5	180626-17	67.0 *	1
PI6-0.5	180626-19	10.9	1
PI5-0.5	180626-21	14.6	1
PI8-0.5	180626-23	5.31	1
VS3-0.5	180626-25	62.4 *	1
VS4-0.5	180626-27	57.3 *	1
VS1-0.5	180626-29	6.35	1
VS2-0.5	180626-31	22.0	1
Method Blank	---	ND	1
	MDL	0.084	
	PQL	0.50	

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
STLC Limit for lead = 5 PPM
* = STLC analysis is recommended (if marked)
*** = The concentration exceeds the TTLC Limit @ 1000 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

EPA 6010B FOR TTLC-LEAD; PAGE 2 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	TTLC-LEAD RESULT	DF
VS6-0.5	180626-58	30.1	1
VS7-0.5	180626-60	16.1	1
Method Blank	---	ND	1
	MDL	0.084	
	PQL	0.50	

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
STLC Limit for lead = 5 PPM
* = STLC analysis is recommended (if marked)
*** = The concentration exceeds the TTLC Limit @ 1000 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

EPA 6010B FOR TTLC-ARSENIC; PAGE 1 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ARSENIC RESULT	DF
VS10-0.5	180626-33	9.71	1
VS11-0.5	180626-35	13.0	1
VS12-0.5	180626-37	6.25	1
VS5-0.5	180626-38	6.56	1
GW1-0.5	180626-39	12.9	1
GW2-0.5	180626-41	3.69	1
Method Blank	---	ND	1
	MDL	0.248	
	PQL	0.30	

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
STLC Limit for Arsenic = 5 PPM
* = STLC analysis is recommended (if marked)
*** = The concentration exceeds the TTLC Limit @ 500 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: 12064.001

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

EPA 6010B FOR TTLC-ARSENIC; PAGE 2 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ARSENIC RESULT	DF
GW3-0.5	180626-43	5.48	1
GW4-0.5	180626-45	3.21	1
PI1-0.5	180626-47	4.57	1
PI2-0.5	180626-49	3.90	1
PI3-0.5	180626-51	6.29	1
PI4-0.5	180626-53	3.76	1
VS8-0.5	180626-54	14.1	1
VS9-0.5	180626-56	13.7	1
Method Blank	---	ND	1
	MDL	0.248	
	PQL	0.30	

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
STLC Limit for Arsenic = 5 PPM
* = STLC analysis is recommended (if marked)
*** = The concentration exceeds the TTLC Limit @ 500 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 6/27/2018

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	180626-31	50.0	108	PASS	16.9	50.0	63.5	93%	67.4	101%	8%
Lead(Pb)	180626-31	50.0	111	PASS	22.0	50.0	63.4	83%	67.0	90%	8%
Nickel(Ni)	180626-31	50.0	103	PASS	11.3	50.0	59.8	97%	63.9	105%	8%

ANALYSIS DATE. : 6/25/2018

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	180625-8	0.125	99	PASS	0	0.125	0.113	90%	0.117	94%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	**75 ~ 125**	**75 ~ 125**	**85 ~ 115**	**0 ~ 20**

ANALYST: _____

FINAL REVIEWER: _____

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 6/27/2018

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	180626-45	50.0	108	PASS	3.21	50.0	51.2	96%	51.7	97%	1%
Lead(Pb)	180626-45	50.0	111	PASS	16.2	50.0	58.8	85%	59.4	86%	1%
Nickel(Ni)	180626-45	50.0	103	PASS	10.7	50.0	60.3	99%	60.7	100%	1%

ANALYSIS DATE. : 6/25/2018

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	180625-8	0.125	99	PASS	0	0.125	0.113	90%	0.117	94%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	**75 ~ 125**	**75 ~ 125**	**85 ~ 115**	**0 ~ 20**

ANALYST: _____

FINAL REVIEWER: _____

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **GW5-0.5**
LAB I.D.: 180626-9

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **GW6-0.5**
LAB I.D.: 180626-11

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	50
alpha-BHC	ND	0.001	0.0001	50
beta-BHC	ND	0.001	0.0001	50
gamma-BHC (Lindane)	ND	0.001	0.0001	50
delta-BHC	ND	0.001	0.0001	50
alpha-Chlordane	0.234	0.001	0.0001	50
gamma-Chlordane	0.188	0.001	0.0001	50
Total Chlordane	1.20	0.005	0.0005	50
4,4'-DDD	ND	0.001	0.0002	50
4,4'-DDE	0.025J	0.001	0.0001	50
4,4'-DDT	ND	0.001	0.0001	50
Dieldrin	ND	0.001	0.0002	50
Endosulfan I	ND	0.001	0.0002	50
Endosulfan II	ND	0.001	0.0002	50
Endosulfan Sulfate	ND	0.001	0.0001	50
Endrin	ND	0.001	0.0001	50
Endrin Aldehyde	ND	0.001	0.0001	50
Endrin Ketone	ND	0.001	0.0001	50
Heptachlor Epoxide	ND	0.001	0.0001	50
Heptachlor	ND	0.001	0.0001	50
Methoxyclor	ND	0.001	0.0001	50
Toxaphene	ND	0.020	0.0100	50

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **GW7-0.5**
LAB I.D.: 180626-13

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	2
alpha-BHC	ND	0.001	0.0001	2
beta-BHC	ND	0.001	0.0001	2
gamma-BHC (Lindane)	ND	0.001	0.0001	2
delta-BHC	ND	0.001	0.0001	2
alpha-Chlordane	ND	0.001	0.0001	2
gamma-Chlordane	0.0015J	0.001	0.0001	2
Total Chlordane	0.008J	0.005	0.0005	2
4,4'-DDD	ND	0.001	0.0002	2
4,4'-DDE	ND	0.001	0.0001	2
4,4'-DDT	ND	0.001	0.0001	2
Dieldrin	ND	0.001	0.0002	2
Endosulfan I	ND	0.001	0.0002	2
Endosulfan II	ND	0.001	0.0002	2
Endosulfan Sulfate	ND	0.001	0.0001	2
Endrin	ND	0.001	0.0001	2
Endrin Aldehyde	ND	0.001	0.0001	2
Endrin Ketone	ND	0.001	0.0001	2
Heptachlor Epoxide	ND	0.001	0.0001	2
Heptachlor	ND	0.001	0.0001	2
Methoxyclor	ND	0.001	0.0001	2
Toxaphene	ND	0.020	0.0100	2

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **GW8-0.5**
LAB I.D.: 180626-15

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	0.003	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	0.009	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0008J	0.001	0.0001	1
4,4'-DDT	0.0009J	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI7-0.5**
LAB I.D.: 180626-17

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	10
alpha-BHC	ND	0.001	0.0001	10
beta-BHC	ND	0.001	0.0001	10
gamma-BHC (Lindane)	ND	0.001	0.0001	10
delta-BHC	ND	0.001	0.0001	10
alpha-Chlordane	ND	0.001	0.0001	10
gamma-Chlordane	ND	0.001	0.0001	10
Total Chlordane	ND	0.005	0.0005	10
4,4'-DDD	ND	0.001	0.0002	10
4,4'-DDE	0.008J	0.001	0.0001	10
4,4'-DDT	0.011	0.001	0.0001	10
Dieldrin	ND	0.001	0.0002	10
Endosulfan I	ND	0.001	0.0002	10
Endosulfan II	ND	0.001	0.0002	10
Endosulfan Sulfate	ND	0.001	0.0001	10
Endrin	ND	0.001	0.0001	10
Endrin Aldehyde	ND	0.001	0.0001	10
Endrin Ketone	ND	0.001	0.0001	10
Heptachlor Epoxide	ND	0.001	0.0001	10
Heptachlor	ND	0.001	0.0001	10
Methoxyclor	ND	0.001	0.0001	10
Toxaphene	ND	0.020	0.0100	10

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: 12064.001

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: PI6-0.5
LAB I.D.: 180626-19

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/26/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI5-0.5**
LAB I.D.: 180626-21

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	5
alpha-BHC	ND	0.001	0.0001	5
beta-BHC	ND	0.001	0.0001	5
gamma-BHC (Lindane)	ND	0.001	0.0001	5
delta-BHC	ND	0.001	0.0001	5
alpha-Chlordane	ND	0.001	0.0001	5
gamma-Chlordane	ND	0.001	0.0001	5
Total Chlordane	ND	0.005	0.0005	5
4,4'-DDD	ND	0.001	0.0002	5
4,4'-DDE	0.012	0.001	0.0001	5
4,4'-DDT	0.003J	0.001	0.0001	5
Dieldrin	ND	0.001	0.0002	5
Endosulfan I	ND	0.001	0.0002	5
Endosulfan II	ND	0.001	0.0002	5
Endosulfan Sulfate	ND	0.001	0.0001	5
Endrin	ND	0.001	0.0001	5
Endrin Aldehyde	ND	0.001	0.0001	5
Endrin Ketone	ND	0.001	0.0001	5
Heptachlor Epoxide	ND	0.001	0.0001	5
Heptachlor	ND	0.001	0.0001	5
Methoxyclor	ND	0.001	0.0001	5
Toxaphene	ND	0.020	0.0100	5

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI8-0.5**
LAB I.D.: 180626-23

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/26/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS3-0.5**
LAB I.D.: 180626-25

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	5
alpha-BHC	ND	0.001	0.0001	5
beta-BHC	ND	0.001	0.0001	5
gamma-BHC (Lindane)	ND	0.001	0.0001	5
delta-BHC	ND	0.001	0.0001	5
alpha-Chlordane	ND	0.001	0.0001	5
gamma-Chlordane	ND	0.001	0.0001	5
Total Chlordane	ND	0.005	0.0005	5
4,4'-DDD	ND	0.001	0.0002	5
4,4'-DDE	0.003J	0.001	0.0001	5
4,4'-DDT	0.016	0.001	0.0001	5
Dieldrin	0.007	0.001	0.0002	5
Endosulfan I	ND	0.001	0.0002	5
Endosulfan II	ND	0.001	0.0002	5
Endosulfan Sulfate	ND	0.001	0.0001	5
Endrin	ND	0.001	0.0001	5
Endrin Aldehyde	ND	0.001	0.0001	5
Endrin Ketone	ND	0.001	0.0001	5
Heptachlor Epoxide	ND	0.001	0.0001	5
Heptachlor	ND	0.001	0.0001	5
Methoxyclor	ND	0.001	0.0001	5
Toxaphene	ND	0.020	0.0100	5

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS4-0.5**
LAB I.D.: 180626-27

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	2
alpha-BHC	ND	0.001	0.0001	2
beta-BHC	ND	0.001	0.0001	2
gamma-BHC (Lindane)	ND	0.001	0.0001	2
delta-BHC	ND	0.001	0.0001	2
alpha-Chlordane	ND	0.001	0.0001	2
gamma-Chlordane	ND	0.001	0.0001	2
Total Chlordane	ND	0.005	0.0005	2
4,4'-DDD	ND	0.001	0.0002	2
4,4'-DDE	0.004	0.001	0.0001	2
4,4'-DDT	0.006	0.001	0.0001	2
Dieldrin	ND	0.001	0.0002	2
Endosulfan I	ND	0.001	0.0002	2
Endosulfan II	ND	0.001	0.0002	2
Endosulfan Sulfate	ND	0.001	0.0001	2
Endrin	ND	0.001	0.0001	2
Endrin Aldehyde	ND	0.001	0.0001	2
Endrin Ketone	ND	0.001	0.0001	2
Heptachlor Epoxide	ND	0.001	0.0001	2
Heptachlor	ND	0.001	0.0001	2
Methoxyclor	ND	0.001	0.0001	2
Toxaphene	ND	0.020	0.0100	2

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS1-0.5**
LAB I.D.: 180626-29

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.003	0.001	0.0001	1
4,4'-DDT	0.0009J	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS2-0.5**
LAB I.D.: 180626-31

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	0.002	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS10-0.5**
LAB I.D.: 180626-33

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS11-0.5**
LAB I.D.: 180626-35

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/26/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS12-0.5**
LAB I.D.: 180626-37

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	5
alpha-BHC	ND	0.001	0.0001	5
beta-BHC	ND	0.001	0.0001	5
gamma-BHC (Lindane)	ND	0.001	0.0001	5
delta-BHC	ND	0.001	0.0001	5
alpha-Chlordane	ND	0.001	0.0001	5
gamma-Chlordane	ND	0.001	0.0001	5
Total Chlordane	ND	0.005	0.0005	5
4,4'-DDD	ND	0.001	0.0002	5
4,4'-DDE	0.014	0.001	0.0001	5
4,4'-DDT	0.012	0.001	0.0001	5
Dieldrin	0.003J	0.001	0.0002	5
Endosulfan I	ND	0.001	0.0002	5
Endosulfan II	ND	0.001	0.0002	5
Endosulfan Sulfate	ND	0.001	0.0001	5
Endrin	ND	0.001	0.0001	5
Endrin Aldehyde	ND	0.001	0.0001	5
Endrin Ketone	ND	0.001	0.0001	5
Heptachlor Epoxide	ND	0.001	0.0001	5
Heptachlor	ND	0.001	0.0001	5
Methoxyclor	ND	0.001	0.0001	5
Toxaphene	ND	0.020	0.0100	5

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS5-0.5**

LAB I.D.: 180626-38

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.001	0.001	0.0001	1
4,4'-DDT	0.002	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: 12064.001

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: GW1-0.5

LAB I.D.: 180626-39

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **GW2-0.5**
LAB I.D.: 180626-41

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **GW3-0.5**
LAB I.D.: 180626-43

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: 12064.001

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: GW4-0.5
LAB I.D.: 180626-45

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: 12064.001

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/26/18
DATE REPORTED:06/27/18

METHOD BLANK REPORT FOR LAB I.D.:
180626-9, -11, -13, -15, -17, -19, -21, -23, -25, -27, -29, -31, -33, -35, -37, -38, -39, -41, -43, -45

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)** Date Analyzed: **6/26-27/2018**

Unit: **mg/Kg (ppm)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 180626-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00573	**115%**	0.00594	**119%**	**4%**	**0-20%**	**70-130**
Aldrin	0.000	0.00500	0.00567	**113%**	0.00581	**116%**	**2%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.00500	0.00464	**93%**	0.00467	**93%**	**1%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00542	**108%**	**75-125**
Aldrin	0.00500	0.00554	**111%**	**75-125**
4,4-DDE	0.00500	0.00474	**95%**	**75-125**
Dieldrin	0.00500	0.00548	**110%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	180626-9	180626-11	180626-13	180626-15	180626-17	180626-19
Tetra-chloro-meta-xylene	50-150	102%	88%	130%	125%	86%	118%	86%
Decachlorobiphenyl	50-150	86%	95%	104%	115%	85%	117%	88%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		180626-21	180626-23	180626-25	180626-27	180626-29	180626-31	180626-33
Tetra-chloro-meta-xylene	50-150	107%	85%	107%	114%	131%	125%	89%
Decachlorobiphenyl	50-150	88%	97%	94%	122%	123%	126%	61%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		180626-35	180626-37	180626-38	180626-39	180626-41	180626-43	180626-45
Tetra-chloro-meta-xylene	50-150	83%	129%	85%	128%	121%	116%	124%
Decachlorobiphenyl	50-150	69%	130%	77%	126%	103%	139%	115%

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **PI1-0.5**
LAB I.D.: 180626-47

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI2-0.5**
LAB I.D.: 180626-49

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0006J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI3-0.5**
LAB I.D.: 180626-51

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	0.0008J	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **PI4-0.5**
LAB I.D.: 180626-53

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.001	0.001	0.0001	1
4,4'-DDT	0.0008J	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS8-0.5**
LAB I.D.: 180626-54

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	0.0005J	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

SAMPLE I.D.: **VS9-0.5**
LAB I.D.: 180626-56

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS6-0.5**

LAB I.D.: 180626-58

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	2*
alpha-BHC	ND	0.001	0.0001	2*
beta-BHC	ND	0.001	0.0001	2*
gamma-BHC (Lindane)	ND	0.001	0.0001	2*
delta-BHC	ND	0.001	0.0001	2*
alpha-Chlordane	ND	0.001	0.0001	2*
gamma-Chlordane	ND	0.001	0.0001	2*
Total Chlordane	ND	0.005	0.0005	2*
4,4'-DDD	ND	0.001	0.0002	2*
4,4'-DDE	ND	0.001	0.0001	2*
4,4'-DDT	0.001J	0.001	0.0001	2*
Dieldrin	ND	0.001	0.0002	2*
Endosulfan I	ND	0.001	0.0002	2*
Endosulfan II	ND	0.001	0.0002	2*
Endosulfan Sulfate	ND	0.001	0.0001	2*
Endrin	ND	0.001	0.0001	2*
Endrin Aldehyde	ND	0.001	0.0001	2*
Endrin Ketone	ND	0.001	0.0001	2*
Heptachlor Epoxide	ND	0.001	0.0001	2*
Heptachlor	ND	0.001	0.0001	2*
Methoxyclor	ND	0.001	0.0001	2*
Toxaphene	ND	0.020	0.0100	2*

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected
* = Actual Detection Limit Raised Due to Matrix Interference

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton & Associates, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **12064.001**

MATRIX: SOIL
SAMPLING DATE: 06/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 06/26/18
DATE EXTRACTED: 06/26/18
DATE ANALYZED: 06/27/18
DATE REPORTED: 06/27/18

SAMPLE I.D.: **VS7-0.5**
LAB I.D.: 180626-60

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: Leighton & Associates, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com
PROJECT: 12064.001

MATRIX:SOIL
SAMPLING DATE:06/25/18
REPORT TO:MR. ZACH FREEMAN

DATE RECEIVED:06/26/18
DATE EXTRACTED:06/26/18
DATE ANALYZED:06/27/18
DATE REPORTED:06/27/18

METHOD BLANK REPORT FOR LAB I.D.:
180626-47, -49, -51, -53, -54, -56, -58, -60

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)** Date Analyzed: **6/27/2018**

Unit: **mg/Kg (ppm)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 180626-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00551	**110%**	0.00558	**112%**	**1%**	**0-20%**	**70-130**
Aldrin	0.000	0.00500	0.00568	**114%**	0.00578	**116%**	**2%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.00500	0.00480	**96%**	0.00494	**99%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00549	**110%**	**75-125**
Aldrin	0.00500	0.00566	**113%**	**75-125**
4,4-DDE	0.00500	0.00474	**95%**	**75-125**
Dieldrin	0.00500	0.00548	**110%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	180626-47	180626-49	180626-51	180626-53	180626-54	180626-56
Tetra-chloro-meta-xylene	50-150	119%	115%	126%	111%	130%	117%	115%
Decachlorobiphenyl	50-150	121%	141%	137%	133%	124%	119%	142%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		180626-58	180626-60					
Tetra-chloro-meta-xylene	50-150	122%	114%					
Decachlorobiphenyl	50-150	88%	135%					

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
Tetra-chloro-meta-xylene	50-150							
Decachlorobiphenyl	50-150							

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

* = *Surrogate fail due to matrix interference (If Marked)*

Note: ***LCS, MS, MSD are in control therefore results are in control.***

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours RUSH
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081A	6010B Pb								Misc./PO#
								Analysis Required									COMMENTS
GW5-0.5	180626-9	6/25/18	0850	Soil	1		ice	X	X								
GW5-2.0	-10		0901														
GW6-0.5	-11		0910					X	X								
GW6-2.0	-12		0915														
GW7-0.5	-13		0925					X	X								
GW7-2.0	-14		0931														
GW8-0.5	-15		0946					X	X								
GW8-2.0	-16		0950														
PI7-0.5	-17		1040					X	X								
PI7-2.0	-18		1046														
PI6-0.5	-19		1110					X	X								
PI6-2.0 2.5	-20		1120														
PI5-0.5	-21		1130					X	X								
PI5-2.0	-22		1136	Soil													
PI8-0.5	-23	6/25/18	1158	Soil	1		ice	X	X								

Company Name: Leighton and Associates
Address: 10532 Acacia St, Suite B-6
City/State/Zip: Rancho Cucamonga CA 91730

Project Contact: Zachary Freeman
Tel: 909-527-8785
Fax/Email: zfreeman@leightongroup.com

Sampler's Signature:
Project Name/ID: 12064.001

Relinquished by:	Received by:	Date & Time: 6/26/18 0900	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time: 06/26/18 0950	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: 6-25-2018

WHITE WITH SAMPLE • YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

RUSH

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081A	6010B Pb	6010B As	COMMENTS
PI8-2.0	18626-24	6/25/18	1205	Soil	1	4°C	ice				
[redacted] VS3-0.5	-25		1403					X	X		
VS3-2.0	-26		1408								
VS4-0.5	-27		1420					X	X		
VS4-[redacted]1.5	-28		1430								
VS1-0.5	-29		1437					X	X		
VS1-1.5	-30		1447								
VS2-0.5	-31		1515					X	X		
VS2-1.0	-32		1532								
VS10-0.5	-33		1540					X		X	
VS10-1.5	-34		1546								
VS11-0.5	-35		1554					X		X	
VS11-1.5	-36		1559								
VS12-0.5	-37		1620					X		X	
VS5-0.5	-38	6/25/18		Soil	1		ice	X		X	

Misc./PO#

Analysis Required

Company Name: Leighton
Address: 10532 Acacia St, Suite B6
City/State/Zip: Rancho Cucamonga CA 91730

Project Contact: Zachary Freeman
Tel: 909-527-8785
Fax/Email: ZFreeman@leightongroup.com

Sampler's Signature:
Project Name/ID: 12064.001

Relinquished by:
Relinquished by:
Relinquished by:

Received by:
Received by:
Received by:

Date & Time: 06/26/18 0700
Date & Time: 06/26/18 0750
Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: 6-25-2018

WHITE WITH SAMPLE • YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

RUSH

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081A	6010B As								Misc./PO#
								Analysis Required									COMMENTS
GW1-0.5	180626-39	6/25/18	0854	soil	1 4oz jar		ice	X	X								
GW1-1.5	-40		0900														
GW2-0.5	-41		0911					X	X								
GW2-1.5	-42		0915														
GW3-0.5	-43		0930					X	X								
GW3-1.5	-44		0935														
GW4-0.5	-45		0944					X	X								
GW4-1.5	-46		0948														
PI1-0.5	-47		1044					X	X								
PI1-1.5	-48		2050														
PI2-0.5	-49		1105					X	X								
PI2-1.5	-50		1112														
PI3-0.5	-51		1125					X	X								
PI3-1.5	-52		1134														
PI4-0.5	-53	6/25/18	1150	soil	1		ice	X	X								

Company Name: Leighton and Associates
Address: 10532 Acacia St Suite B6
City/State/Zip: Rancho Cucamonga CA 91730

Project Contact: Zachary Freeman
Tel: 909-527 8785
Fax/Email: zfreeman@leightongroup.com

Sampler's Signature:
Project Name/ID: 12064.001

Relinquished by:
Relinquished by:
Relinquished by:

Received by:
Received by:
Received by:

Date & Time: 06/26/18 0900
Date & Time: 06/26/18 0950
Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: 6-25-2018

WHITE WITH SAMPLE • YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

RUSH

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081A	6010B P6	6010B As	Misc.	COMMENTS
~~VS5-1.5~~		6/25/18		Soil	1		ice					
VS8-0.5	806-54		1353			806		X		X		
VS8-1.5	-55		1403									
VS9-0.5	-56		1419					X		X		
VS9-1.5	-57		1533									
VS6-0.5	-58		1559					X	X			
VS6-1.5	-59		1606									
VS7-0.5	-60		1540					X	X			
VS7-1.5	-61		1552									
PI4-1.5	-62		12:00									
		6/25/18		Soil	1		ice					

Analysis Required

Company Name:	Lightner and Associates
Address:	10532 Acacia St. Suite B6
City/State/Zip:	Rancho Cucamonga CA 91730
Project Contact:	Zachary Freeman
Tel:	909-527-8785
Fax:	ZFreeman@LightnerGroup.com
Sampler's Signature:	
Project Name/ID:	12064.001

Relinquished by:		Received by:	Date & Time: 6/26/18 0930
Relinquished by:		Received by:	Date & Time: 6/26/18 0950
Relinquished by:		Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: 6-25-2018

WHITE WITH SAMPLE • YELLOW TO CLIENT

APPENDIX H

GBA GEOENVIRONMENTAL REPORT

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

Appendix E2

Limited Asbestos Inspection Report

EXECUTIVE ENVIRONMENTAL
HEALTH & SAFETY SIMPLIFIED

Industrial Hygiene • Air Quality • Lead & Asbestos • Training • Health & Safety

LIMITED ASBESTOS INSPECTION REPORT

Conducted at:

OLD PIONEER ADULT SCHOOL
BUILDINGS B, D AND E
1651 EAST ROWLAND AVENUE
WEST COVINA, CALIFORNIA 91791

Prepared for:

MR. MIKE STRAGIER
MANAGER OF M & O AND TRANSPORTATION
COVINA-VALLEY UNIFIED SCHOOL DISTRICT
519 EAST BADILLO STREET
COVINA, CALIFORNIA 91723

Prepared by:

EXECUTIVE ENVIRONMENTAL
310 EAST FOOTHILL BOULEVARD, SUITE 200
ARCADIA, CALIFORNIA 91006

Project Number EE 18-Z0172-0076
April 25, 2018

Report assembled by:

Yesenia G. Galeana
Technical Report Writer
Executive Environmental

Report generated/reviewed by:

Tim Galeana, CAC
Senior Project Manager
Executive Environmental

TABLE OF CONTENTS

LIMITED ASBESTOS INSPECTION REPORT

Project Number:	EE 18-Z0172-0076
Client:	Covina-Valley Unified School District 519 East Badillo Street Covina, California 91723
Site Location:	Old Pioneer Adult School Buildings B, D and E 1651 East Rowland Avenue West Covina, California 91791
Site Use:	School Property
Contact Person:	Mr. Mike Stragier Manager of M & O and Transportation Phone: (626) 974-7600, ext. 2150
Inspection Date:	April 16, 2018
Inspected By:	Mr. George Valverde Certified Site Surveillance Technician, # 09-4586
Report Assembled By:	Ms. Yesenia G. Galeana Technical Report Writer
Report Generated/Reviewed By:	Mr. Tim Galeana Certified Asbestos Consultant, # 98-2470

I. EXECUTIVE SUMMARY

Executive Environmental (EE) provided the services of a Certified Site Surveillance Technician to conduct a limited asbestos inspection of Buildings B, D and E at the Old Pioneer Adult School located at 1651 East Rowland Avenue, West Covina, California. Materials suspected of containing asbestos were sampled and analyzed for the presence of asbestos. Asbestos-Containing Materials (ACM) were identified during this inspection. *This is considered a limited inspection. The inspection was limited to materials and locations, as directed by the District Representative.*

II. SAMPLING METHODOLOGY

A visual inspection of Buildings B, D and E was conducted prior to the collection of any bulk samples. The visual inspection was conducted to identify and record the location and condition of the materials to be sampled. Following the visual inspection, bulk material samples of the identified suspect asbestos-containing building materials were collected. The materials were categorized into homogeneous groupings, and each sample was assigned a unique sample number and placed into a sealed container.

Upon completion of the bulk sample collection, a chain of custody was prepared and the samples were delivered to the laboratory for analysis. AmeriSci in Carson, CA, analyzed the samples using Polarized Light Microscopy (PLM). AmeriSci is an accredited participant in the National Voluntary Laboratory Accreditation Program (NVLAP), No. 200346-0. The principles described in the current Environmental Protection Agency (EPA) 600 method were used in the preparation and analysis of the bulk samples.

Note: Inaccessible suspect asbestos materials may be located within sealed ceilings, walls, or floors; or within wall cavities, interstitials, shafts, etc. Suspect asbestos materials located in these areas must be sampled prior to any activities that might cause them to be disturbed.

III. SAMPLE ANALYSIS

Fifty-one (51) samples were collected during this inspection. The laboratory analysis results are identified in the following table. Materials determined not to contain asbestos are listed as "No Asbestos Detected" (NAD).

Any material found to contain more than 1% of a known asbestos substance is considered an asbestos-containing material (ACM). Materials falling within this category are controlled and must be handled in accordance with the California Occupational Safety & Health Administration (Cal/OSHA), EPA, and South Coast Air Quality Management District (SCAQMD) regulations.

In addition, materials which are characterized as non-ACM by EPA or other local regulatory agencies may fall within the regulatory standards of Cal/OSHA, which further regulates any materials found to contain more than 1/10 of 1%, but 1% or less, of a known asbestos substance as asbestos-containing construction materials (ACCMs). Impacting or handling ACCMs requires special employer Registration, documentation, training, and personal protective equipment. When a material is to be impacted, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) regulations require further testing for materials that fall within this category.

The PLM analytical protocol requires each layer of the sample to be analyzed separately. The quantity of analyses will vary based on the number of layers in a sample and whether a "positive stop" is employed. When one sample of a homogeneous area is positive, the remainder of the samples need not be analyzed because the entire homogeneous area must be considered positive.

Sampling results begin on the next page.
The remainder of this page is blank.

POLARIZED LIGHT MICROSCOPY (PLM) ANALYSIS DATA

Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Homogeneous Material #	Material Description	Material Location	Estimated Quantity	Sample Number	Sample Location	Analytical Results
Building D (Classrooms 1 through 4)[A]						
1	Carpet glue with black mastic over concrete slab	Rooms 1 through 4	3,720 Square Feet	1804160076GV-01	Room 4, southwest	2% Chrysotile
				1804160076GV-02	Room 2, south	2% Chrysotile
				1804160076GV-03	Room 1, east	2% Chrysotile
2	Window putty	Exterior side of windows and transoms	480 Linear Feet	1804160076GV-04	North	NAD[B]
				1804160076GV-05	Southeast	NAD
				1804160076GV-06	Southwest	NAD

Note: This table must be used in conjunction with the entire report. This document is not to be used for contract bidding and is intended to be used to identify asbestos-containing materials and their locations only.

Sampling results continue on the next page.

[A] Notes: 1) Wood baseboard. 2) Interior metal windows with rubber seal.
[B] NAD = No Asbestos Detected

POLARIZED LIGHT MICROSCOPY (PLM) ANALYSIS DATA

Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Homogeneous Material #	Material Description	Material Location	Estimated Quantity	Sample Number	Sample Location	Analytical Results
Building E (Classrooms 5 through 8)[C]						
3	9"x9" Green floor tile and mastic	Rooms 5 and 8	1,856 Square Feet	1804160076GV-07	Room 5, east	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-08	Room 8, east	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-09	Room 8, west	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
4	9"x9" Tan floor tile and mastic	Rooms 6 and 7 Rooms 5 and 8, scattered	1,880 Square Feet	1804160076GV-10	Room 5, southwest	Tile: 2% Chrysotile
						Mastic: NAD[D]
				1804160076GV-11	Room 6, center	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-12	Room 7, west	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
5	9"x9" Beige floor tile and mastic	Rooms 5 and 8 scattered	12 Square Feet	1804160076GV-13	Room 5, northeast	NAD
				1804160076GV-14	Room 5, center	Tile: NAD
						Mastic: 3% Chrysotile
				1804160076GV-15	Room 8, northeast	NAD
6	Window putty	Exterior side of windows and transoms	480 Linear Feet	1804160076GV-16	Northeast	2% Chrysotile
				1804160076GV-17	Northwest	2% Chrysotile
				1804160076GV-18	South	NAD

Note: This table must be used in conjunction with the entire report. This document is not to be used for contract bidding and is intended to be used to identify asbestos-containing materials and their locations only.

[C] Notes: 1) Wood baseboard. 2) Interior metal windows with rubber seal. 3) No roofing inspection per District Representative.
[D] NAD = No Asbestos Detected

POLARIZED LIGHT MICROSCOPY (PLM) ANALYSIS DATA

Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Homogeneous Material #	Material Description	Material Location	Estimated Quantity	Sample Number	Sample Location	Analytical Results
Building B (Cafeteria)[E]						
7	TSI elbows	Mechanical room	18 Total	1804160076GV-19	Northwest	NAD[F]
				1804160076GV-20	North	NAD
				1804160076GV-21	East	NAD
8	3" Pipe insulation cloth wrap	Mechanical room	80 Linear Feet	1804160076GV-22	Northwest	NAD
				1804160076GV-23	North	NAD
				1804160076GV-24	Center	NAD
9	Duct insulation	Mechanical room	100 Square Feet	1804160076GV-25	Center	NAD
				1804160076GV-26	Center	NAD
				1804160076GV-27	East	NAD
10	Cloth expansion joint	Mechanical room	480 Linear Feet	1804160076GV-28	West	NAD
				1804160076GV-29	West	NAD
				1804160076GV-30	West	NAD
11	Heater exhaust and duct corrugated insulation	Mechanical room	10 Linear Feet	1804160076GV-31	Center	25% Chrysotile
				1804160076GV-32	Southeast	25% Chrysotile
				1804160076GV-33	East	25% Chrysotile
12	12"x12" White floor tile and mastic	Southwest Foyer and Room 1 (Supply room)	648 Square Feet	1804160076GV-34	Southwest foyer, southwest	NAD
				1804160076GV-35	Southwest foyer, northwest	NAD
				1804160076GV-36	Room 1 (Supply room), northwest	NAD

Note: This table must be used in conjunction with the entire report. This document is not to be used for contract bidding and is intended to be used to identify asbestos-containing materials and their locations only.

[E] Notes: 1) Fiberglass pipe insulation in Mechanical room. 2) Terrazzo flooring in Restrooms will not be impacted by this project.
[F] NAD = No Asbestos Detected

POLARIZED LIGHT MICROSCOPY (PLM) ANALYSIS DATA

Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Homogeneous Material #	Material Description	Material Location	Estimated Quantity	Sample Number	Sample Location	Analytical Results
Building B (Cafeteria)						
13	9"x9" Red floor tile and mastic	Cafeteria	980 Square Feet	1804160076GV-37	Southwest	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-38	Center	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-39	Northeast	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
14	9"x9" Blue floor tile and mastic	Cafeteria	1,000 Square Feet	1804160076GV-40	Northwest	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-41	Center	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-42	Southeast	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
15	9"x9" Beige floor tile and mastic	Room 2 and scattered at Cafeteria	260 Square Feet	1804160076GV-43	Cafeteria, northwest	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-44	Room 2, south	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-45	Room 2, southwest	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile

Note: This table must be used in conjunction with the entire report. This document is not to be used for contract bidding and is intended to be used to identify asbestos-containing materials and their locations only.

Sampling results continue on the next page

POLARIZED LIGHT MICROSCOPY (PLM) ANALYSIS DATA
Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Homogeneous Material #	Material Description	Material Location	Estimated Quantity	Sample Number	Sample Location	Analytical Results
Building B (Cafeteria)						
16	9"x9" Green floor tile and mastic	Room 2	330 Square Feet	1804160076GV-46	South	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-47	Center	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
				1804160076GV-48	North	Tile: 3% Chrysotile
						Mastic: 5% Chrysotile
17	Window putty	Exterior side of windows and transoms	220 Linear Feet	1804160076GV-49	West	2% Chrysotile
				1804160076GV-50	Northeast	NAD[G]
				1804160076GV-51	North	NAD

Note: This table must be used in conjunction with the entire report. This document is not to be used for contract bidding and is intended to be used to identify asbestos-containing materials and their locations only.

The remainder of this page is blank.

[G] NAD = No Asbestos Detected

IV. FINDINGS

EE conducted a limited asbestos inspection of Buildings B, D and E at the Old Pioneer Adult School located at 1651 East Rowland Avenue, West Covina, California.

Seventeen (17) homogeneous material groups were identified during the visual inspection. Fifty-one (51) samples of suspect asbestos-containing materials were collected and delivered to AmeriSci of Carson, California, for analysis. The homogeneous areas and sampling results are listed on the table in Section III.

The analytical data revealed that the following materials contain asbestos:

Building D:

- Carpet glue with black mastic: The carpet glue with black mastic located in rooms 1 through 4 over concrete slab tested positive for asbestos content.

Building E:

- 9"x9" Green floor tile and mastic: The 9"x9" green floor tile and mastic located in rooms 5 and 8 tested positive for asbestos content.
- 9"x9" Tan floor tile and mastic: The 9"x9" tan floor tile and mastic located in rooms 6 and 7, plus scattered through rooms 5 and 8 tested positive for asbestos content.
- 9"x9" Beige floor tile and mastic: The 9"x9" beige floor tile and mastic located in rooms 5 and 8 (scattered) tested positive for asbestos content.
- Window putty: The window putty located on the exterior side of windows and transoms tested positive for asbestos content.

Building B:

- Heater exhaust and duct corrugated insulation: The heater exhaust and duct corrugated insulation located in the mechanical room tested positive for asbestos content.
- 9"x9" Red floor tile and mastic: The 9"x9" red floor tile and mastic located in the Cafeteria tested positive for asbestos content.
- 9"x9" Blue floor tile and mastic: The 9"x9" beige floor tile and mastic located in the Cafeteria tested positive for asbestos content.
- 9"x9" Beige floor tile and mastic: The 9"x9" beige floor tile mastic located in Room 2 and scattered throughout Cafeteria tested positive for asbestos content. The 9"x9" floor tile tested negative for asbestos, but since separation of the floor tile and mastic is almost impossible, all flooring materials are considered positive
- 9"x9" Green floor tile and mastic: The 9"x9" green floor tile and mastic located in Room 2 tested positive for asbestos content.
- Window putty: The window putty located on the exterior side of windows and transoms tested positive for asbestos content.

V. CONCLUSIONS/RECOMMENDATIONS

Normally, asbestos-containing material found to be in good condition is not considered a hazard, unless it is disturbed. Prior to the start of any activity, such as remodeling, demolition, or renovation, that might disturb this material, a Certified Asbestos Consultant should be contracted to design and monitor the project. A California-licensed asbestos contractor should be hired to complete the asbestos abatement procedures.

If you have any questions, please call Mr. Tim Galeana at 626-441-7050. We are glad we could be of service to you.

VI. DISCLAIMER/REPORT LIMITATIONS

All reports and recommendations are based on conditions and practices observed and information made available to Executive Environmental (EE) by the client and the designated sites/facilities on the days sampling was conducted. This report does not purport to set forth all hazards, nor to indicate that other hazards do not exist. No responsibility is assumed by EE for the control or correction of conditions or practices existing at the facilities, or at any other premises surveyed by EE, for and on the behalf of the client. Services provided by EE shall be governed by the standard of practice for professional services measured at the time those services are rendered.

All information contained in this report is proprietary and limited to the scope of services, parameters of the analytical methods used and the conditions present at the time of this inspection. Any references to quantities are considered estimates and are not to be construed as actual.

APPENDIX A – LABORATORY ANALYSIS REPORT

Please Reply To:

AMERI SCI

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

FACSIMILE TELECOPY TRANSMISSION

To: Yesenia Galeana
Executive Environmental Services Corporation

Fax #:

Email: info@execenv.com,ygaleana@execenv.com

From: Paola Ducoing
AmeriSci Job #: 918041442
Subject: PLM 48 hour Results
Client Project: 18-Z0172-0076

Date: Friday, April 20, 2018
Time: 16:20:39
Comments:

Number of Pages: 15
(including cover sheet)

AMERISCI

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Executive Environmental Services Corpo
Attn: Yesenia Galeana
310 East Foothill Blvd.
Suite 200
Arcadia, CA 91006

Date Received 04/18/18
Date Examined 04/20/18

RE: 18-Z0172-0076

AmeriSci Job # 918041442
P.O. #

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-01 **Location:**	918041442-01	*Yes*	2 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
1804160076 GV-02 **Location:**	918041442-02	*Yes*	2 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
1804160076 GV-03 **Location:**	918041442-03	*Yes*	2 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow/Black, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
1804160076 GV-04 **Location:**	918041442-04	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-05 **Location:**	918041442-05	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-06 **Location:**	918041442-06	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-07 **Location:**	918041442-07L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-07 **Location:**	918041442-07L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-08 **Location:**	918041442-08L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-08 **Location:**	918041442-08L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-09 **Location:**	918041442-09L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-09 **Location:**	918041442-09L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-10 **Location:**	918041442-10L1	*Yes*	2 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
1804160076 GV-10 **Location:**	918041442-10L2	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-11 **Location:**	918041442-11L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-11 **Location:**	918041442-11L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-12 **Location:**	918041442-12L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-12 **Location:**	918041442-12L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-13 **Location:**	918041442-13L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Brown, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-13 **Location:**	918041442-13L2	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-14 **Location:**	918041442-14L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Brown, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-14 **Location:**	918041442-14L2	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow/Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-15 **Location:**	918041442-15L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Brown, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-21 **Location:**	918041442-21	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Beige/Grey, Homogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 10 %, Fibrous glass 35 %, Non-fibrous 55 %			
1804160076 GV-22 **Location:**	918041442-22	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan/Yellow/Grey, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 10 %, Fibrous glass 55 %, Non-fibrous 35 %			
1804160076 GV-23 **Location:**	918041442-23	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan/Yellow, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 45 %, Fibrous glass 45 %, Non-fibrous 10 %			
1804160076 GV-24 **Location:**	918041442-24	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 10 %, Fibrous glass 65 %, Non-fibrous 25 %			
1804160076 GV-25 **Location:**	918041442-25	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan/Yellow, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 45 %, Fibrous glass 35 %, Non-fibrous 20 %			
1804160076 GV-26 **Location:**	918041442-26	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan/Yellow, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 55 %, Fibrous glass 25 %, Non-fibrous 20 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-27 **Location:**	918041442-27	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Heterogeneous, Fibrous, Insulation **Asbestos Types:** **Other Material:** Cellulose 75 %, Non-fibrous 25 %			
1804160076 GV-28 **Location:**	918041442-28	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Fibrous, Wrap **Asbestos Types:** **Other Material:** Cellulose 90 %, Non-fibrous 10 %			
1804160076 GV-29 **Location:**	918041442-29	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Fibrous, Wrap **Asbestos Types:** **Other Material:** Cellulose 90 %, Non-fibrous 10 %			
1804160076 GV-30 **Location:**	918041442-30	***No***	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Fibrous, Wrap **Asbestos Types:** **Other Material:** Cellulose 90 %, Non-fibrous 10 %			
1804160076 GV-31 **Location:**	918041442-31	***Yes***	25 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Fibrous, Insulation Wrap **Asbestos Types:** Chrysotile 25.0 % **Other Material:** Cellulose 20 %, Non-fibrous 55 %			
1804160076 GV-32 **Location:**	918041442-32	***Yes***	25 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Fibrous, Insulation Wrap **Asbestos Types:** Chrysotile 25.0 % **Other Material:** Cellulose 20 %, Non-fibrous 55 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-33 **Location:**	918041442-33	*Yes*	25 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Fibrous, Insulation Wrap **Asbestos Types:** Chrysotile 25.0 % **Other Material:** Cellulose 20 %, Non-fibrous 55 %			
1804160076 GV-34 **Location:**	918041442-34L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: White, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-34 **Location:**	918041442-34L2	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-35 **Location:**	918041442-35L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: White, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-35 **Location:**	918041442-35L2	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-36 **Location:**	918041442-36L1	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: White, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-36 **Location:**	918041442-36L2	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-37 **Location:**	918041442-37L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Pink, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-37 **Location:**	918041442-37L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-38 **Location:**	918041442-38L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Pink, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-38 **Location:**	918041442-38L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-39 **Location:**	918041442-39L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Pink, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-39 **Location:**	918041442-39L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-40 **Location:**	918041442-40L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Green, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-40 **Location:**	918041442-40L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-41 **Location:**	918041442-41L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Green, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-41 **Location:**	918041442-41L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-42 **Location:**	918041442-42L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Green, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-42 **Location:**	918041442-42L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-43 **Location:**	918041442-43L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-43 **Location:**	918041442-43L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-44 **Location:**	918041442-44L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-44 **Location:**	918041442-44L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-45 **Location:**	918041442-45L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Tan, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-45 **Location:**	918041442-45L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-46 **Location:**	918041442-46L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-46 **Location:**	918041442-46L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-47 **Location:**	918041442-47L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			
1804160076 GV-47 **Location:**	918041442-47L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-48 **Location:**	918041442-48L1	*Yes*	3 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0 % **Other Material:** Non-fibrous 97 %			

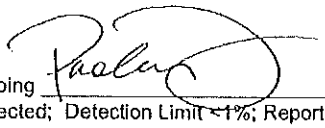
See Reporting notes on last page

PLM Bulk Asbestos Report

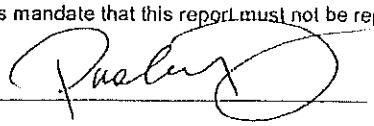
18-Z0172-0076

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1804160076 GV-48 **Location:**	918041442-48L2	*Yes*	5 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** Chrysotile 5.0 % **Other Material:** Non-fibrous 95 %			
1804160076 GV-49 **Location:**	918041442-49	*Yes*	2 % (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
1804160076 GV-50 **Location:**	918041442-50	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
1804160076 GV-51 **Location:**	918041442-51	*No*	NAD (by CVES) by Paola Ducoing on 04/20/18
Analyst Description: Light Grey, Homogeneous, Non-Fibrous, Window Putty **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

Reporting Notes:

Analyzed By: Paola Ducoing  ; Date Analyzed: 4/20/2018 4/20/18

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

Executive Environmental Laboratory Submittal ASBESTOS

EXECUTIVE ENVIRONMENTAL

Originating Office:
☑ 310 E. Foothill Blvd., Suite 200
Arcadia, CA 91006
Phone: 626.441.7050
Fax: 626.441.0016

Lab Submitted to:
☐ LA Testing (Sierra Madre)
☐ AmeriSci
☐ EMLab (Glendale)

☑ Routine (3 working days)

☐ **RUSH** (surcharges may apply)
Circle One: 6 hours / 24 hours / 48 hours

Results Required by: (date and Time):

Project #: 18-20172-0076

Submitted by: GEORGE VALENCIA

Date: 4/16/18

Page 1 of 1

The receiving Laboratory is required to complete the following:
1. All invoices are to be sent to: 310 E. Foothill Blvd, Ste 200, Arcadia, CA 91006 with a copy of the lab report.
2. All lab reports and invoices are to contain the Project Number from above.
3. Unsigned reports marked "draft" are unacceptable.
4. Report to the attention of: Yesenia Galeana Ph: (562) 889-1327

Optional Items to be completed by the Laboratory if check marked:

☑ Fax report to: ☑ 626.441.0016 ☐ Other: 9180414442

☑ Email Report to: ☑ Info@EXECENV.com ☐ Other:

☑ **PHONE & Email** RESULTS TO: Yesenia Galeana @626-873-2300 & ygaleana@execenv.com

Analyses Codes for Analyses Requested Column for Asbestos: **PCM** – NIOSH 7400 **PLM** – PLM EPA 600/R-93/116 **TEM** – AHERA 40 CFR, Part 763 **Point Count** – 1000 Point Count w/Gravimetric Reduction **Other** – Contact office & write Method In w/description

Sample Number Prefix: 180416 0076 GV

Lab No.:	Sample No.:	Media	Air Volume	Analyses Requested
	01	BULK	N/A	PLM
	02	↓	↓	↓
	03	↓	↓	↓
	↓	↓	↓	↓
	51	↓	↓	↓

Notes: 1) Laboratory to assign sequential Alpha Letter starting with "A" to each layer of layered samples analyzed.

NOTE: Stat TAT 48 HRS TAT

Relinquished by: _____ Date: 4.17.18 Time: 3:40 PM

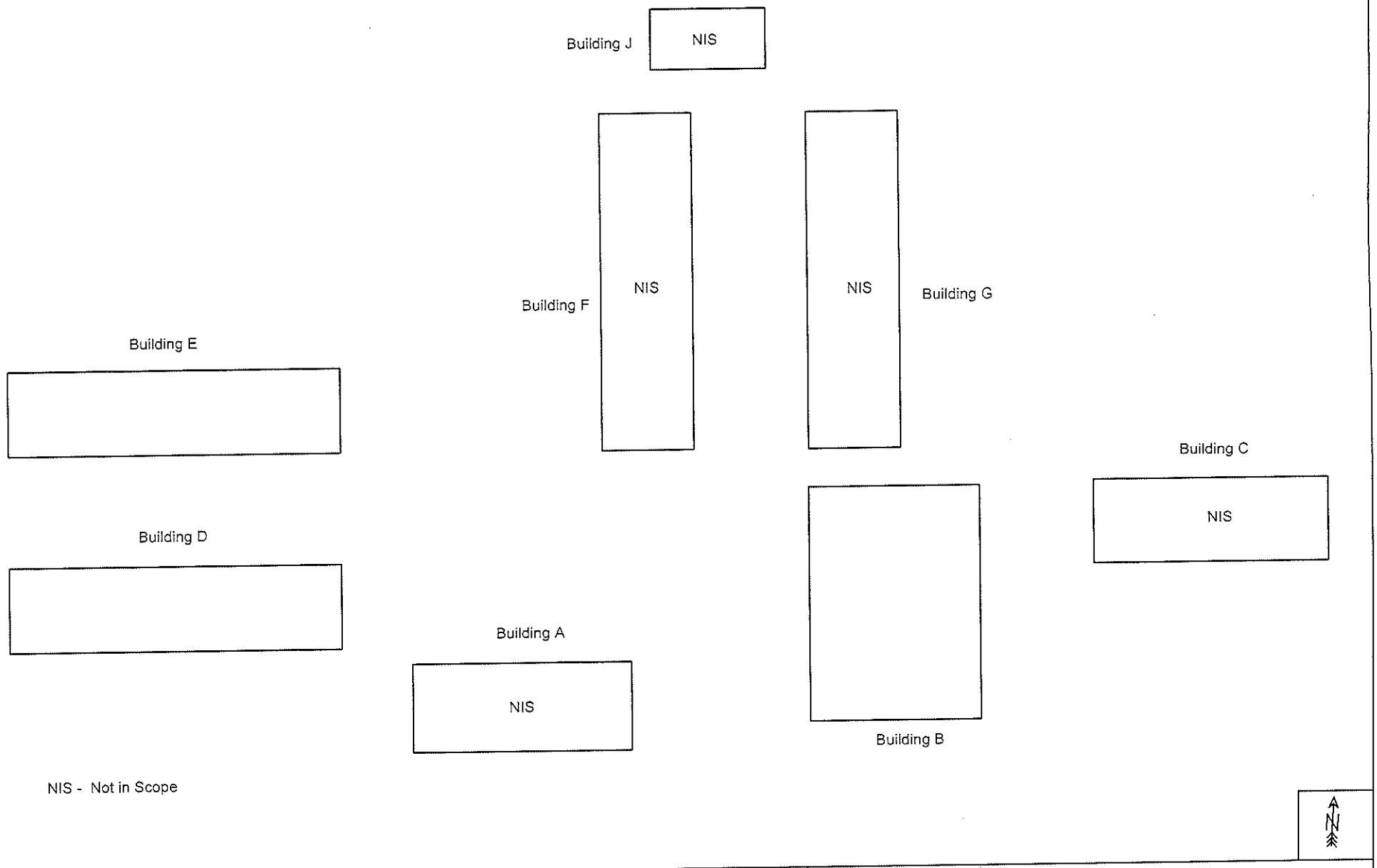
Received by: _____ Date: 4-17-18 Time: 3:40 PM

Received in Lab by: _____ Date: 4/18/18 Time: 11:10

Rev. 10/15

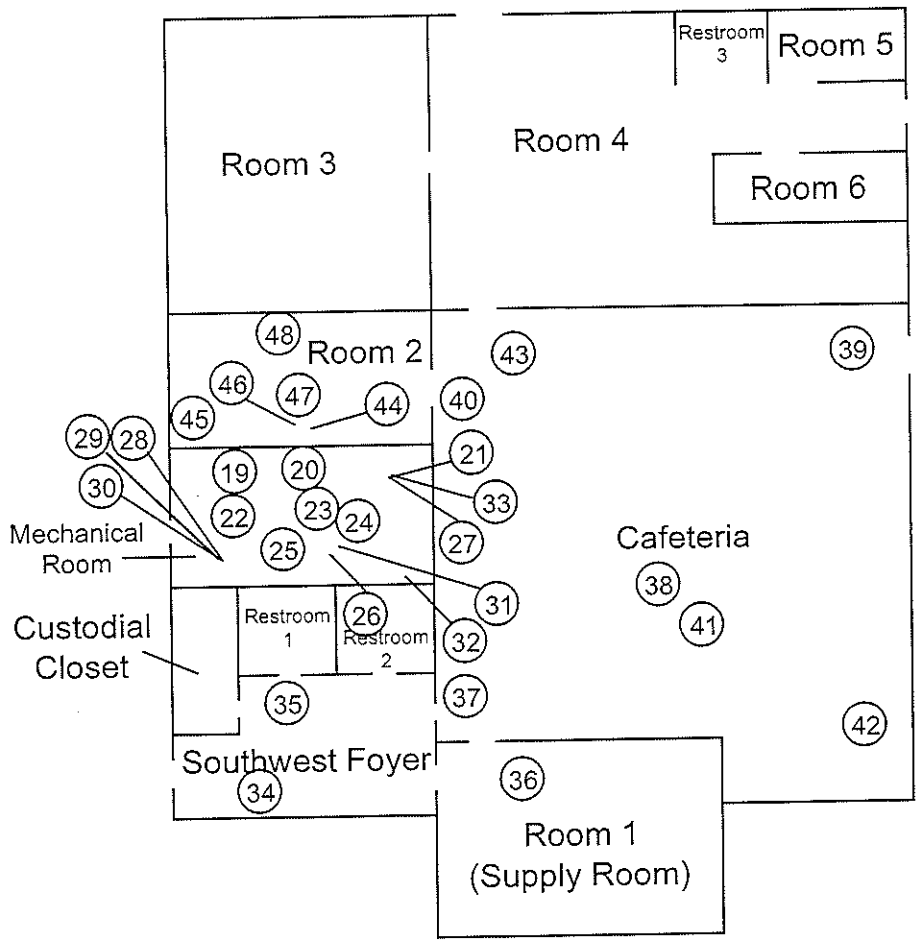
Form: AL 0004

APPENDIX B – SITE DRAWING



Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** Campus Wide
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building B
(Cafeteria)

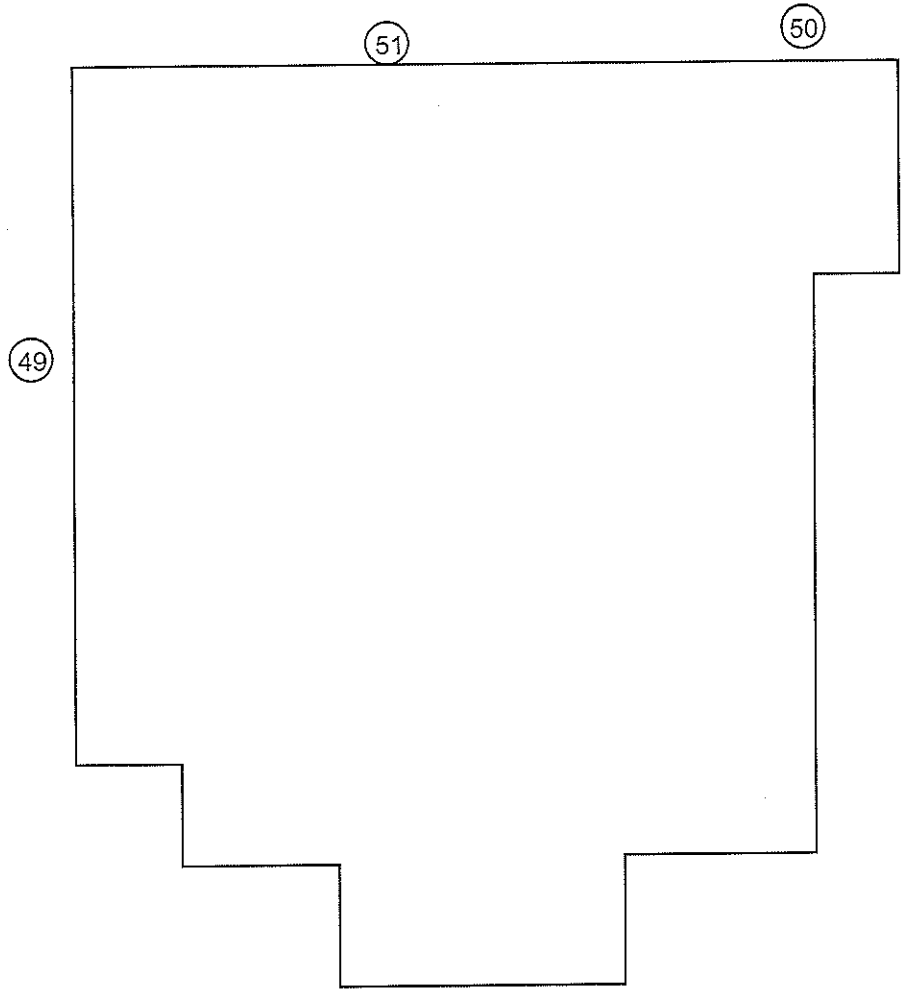


◯ - PLM Sample Location

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** PLM Sample Locations
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building B
(Cafeteria)
Exterior

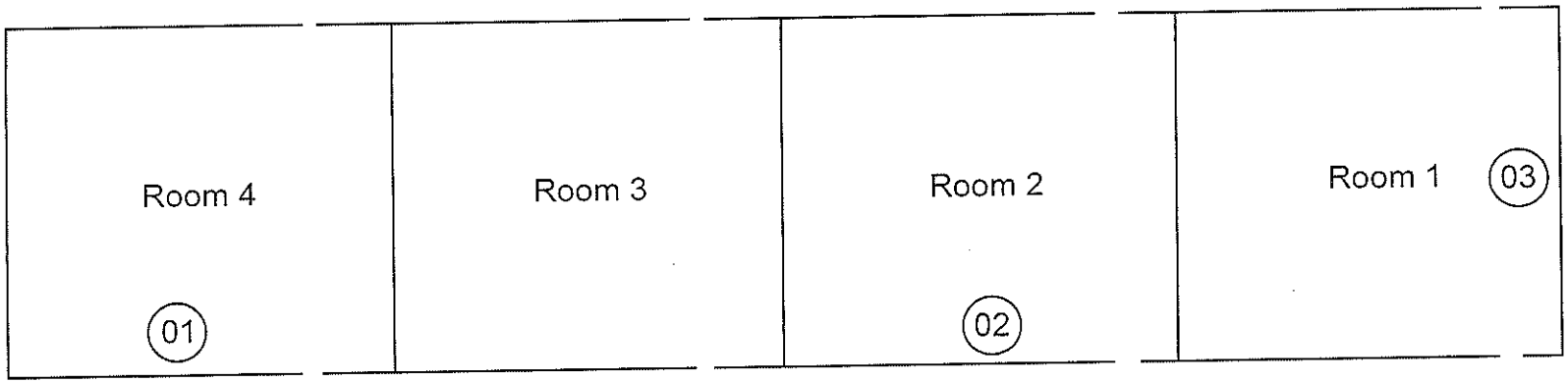


◯ - PLM Sample Location

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** PLM Sample Locations
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building D
(Rooms 1 through 4)

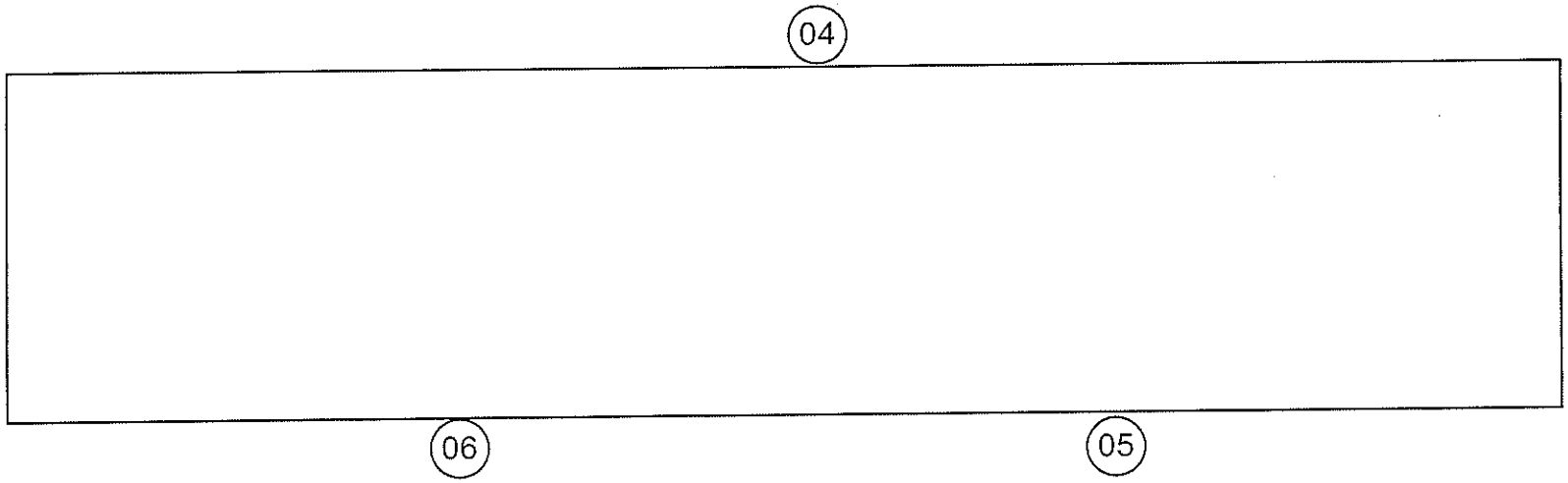


◯ - PLM Sample Location

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** PLM Sample Locations
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building D
Exterior

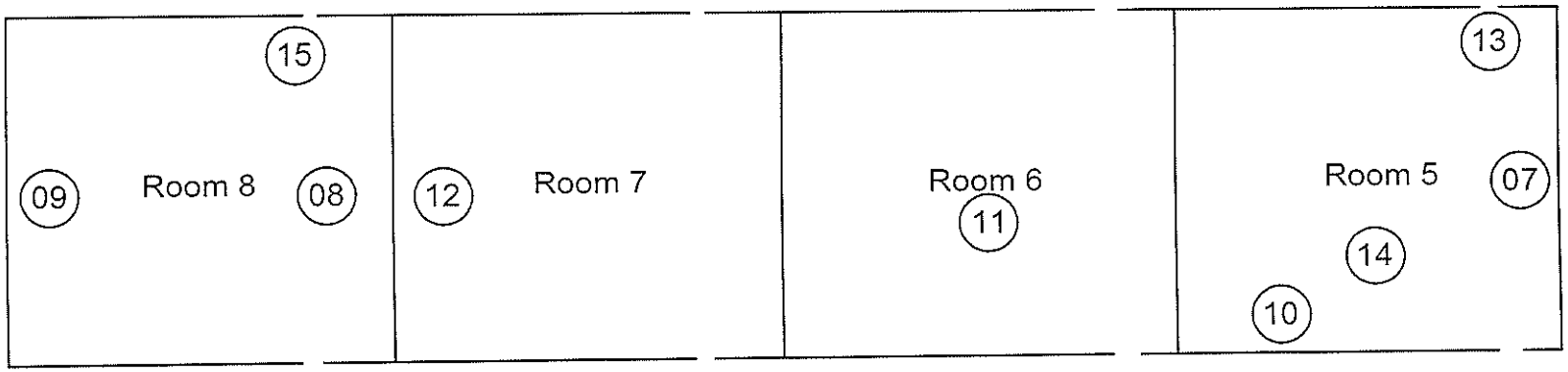


○ - PLM Sample Location

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** PLM Sample Locations
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building E
(Rooms 5 through 8)

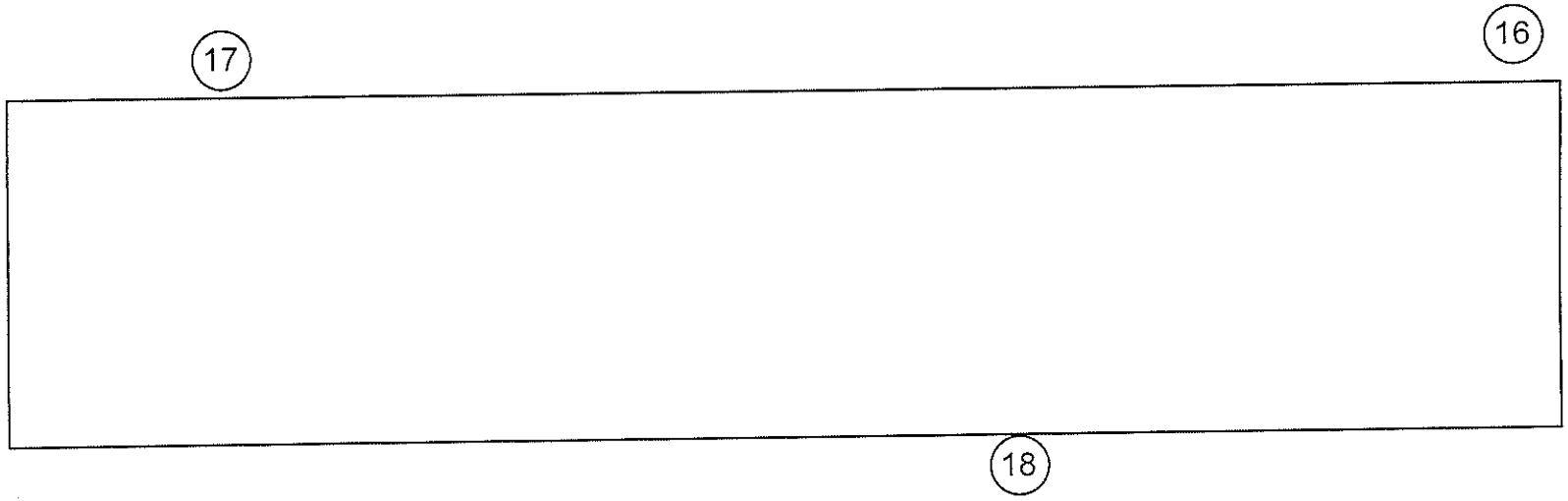


◯ - PLM Sample Location

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:**
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Drawing Not to Scale - © 2012

Building E
Exterior



◯ - PLM Sample Location

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** PLM Sample Locations
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Appendix E3

Lead-Based Paint/Ceramic Tile Inspection Report

EXECUTIVE ENVIRONMENTAL
HEALTH & SAFETY SIMPLIFIED

Industrial Hygiene • Air Quality • Lead & Asbestos • Training • Health & Safety

LEAD-BASED PAINT/CERAMIC TILE INSPECTION REPORT

Conducted at:

OLD PIONEER ADULT SCHOOL
BUILDINGS B, D AND E
1651 EAST ROWLAND AVENUE
WEST COVINA, CALIFORNIA 91791

Prepared for:

MR. MIKE STRAGIER
MANAGER OF M & O AND TRANSPORTATION
COVINA-VALLEY UNIFIED SCHOOL DISTRICT
519 EAST BADILLO STREET
COVINA, CALIFORNIA 91723

Prepared by:

EXECUTIVE ENVIRONMENTAL
310 EAST FOOTHILL BOULEVARD, SUITE 200
ARCADIA, CALIFORNIA 91006

Project Number EE 18-Z0172-0076
April 25, 2018

Report assembled by:

Yesenia G. Galeana
Technical Report Writer
Executive Environmental

Report generated/reviewed by:

Tim Galeana, CLP
Senior Project Manager
Executive Environmental

Table of Contents

LEAD-BASED PAINT/CERAMIC TILE INSPECTION

Project Number:	EE 18-Z0172-0076
Client:	Covina-Valley Unified School District 519 East Badillo Street Covina, California 91723
Site Location:	Old Pioneer Adult School Buildings B, D and E 1651 East Rowland Avenue West Covina, California 91791
Site Use:	School Property
Contact Person:	Mr. Mike Stragier Manager of M & O and Transportation Phone: (626) 974-7600, ext. 2150
Inspection Date:	April 16, 2018
Inspected By:	Mr. Wilson Medina Certified Lead Professional, DHS # 4400 Mr. George Valverde Certified Lead Professional, DHS # 24605
Report Assembled By:	Ms. Yesenia G. Galeana Technical Report Writer
Report Generated/Reviewed By:	Mr. Tim Galeana Certified Lead Professional, DHS # 3732

I. EXECUTIVE SUMMARY

Executive Environmental (EE) provided the services of a Certified Lead Professional (CLP) to conduct a limited lead-based paint/ceramic tile inspection of Buildings B, D and E at the Old Pioneer Adult School located at 1651 East Rowland Avenue, West Covina, California. EE provided a California Department of Public Health Certified Lead Inspector to conduct the inspection. Lead-based ceramic glaze was detected during this inspection. EE's CLP conducted this service on April 17 and 18, 2018. *This is considered a limited inspection. The inspection was limited to various surfaces and components associated with Buildings B, D and E, as directed by the District Representative.*

II. SAMPLING PROTOCOL

According to the United States Department of Housing and Urban Development's (HUD) guideline document, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, and Section 1017 of Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992, Public Law 102-550, paint found to have a lead concentration of at least 1.0 mg/cm^2 (milligrams per centimeter squared) by X-Ray Fluorescence (XRF), or 0.5 percent (5000 parts per million) by weight, is regulated as lead-based paint.

Los Angeles County Childhood Lead Poisoning Prevention Program (CLPPP), established in 1991, further regulates that paint found to have a lead concentration greater than 0.7 milligrams per centimeter squared (mg/cm^2) by XRF readings, 600 parts per million (ppm) or 0.06 weight-to-weight percent by Atomic Absorption Spectrometry (AAS) analysis, is considered to be lead-based paint. The Los Angeles County action level was used for determining the lead content in this inspection because it is more stringent than the HUD guidelines.

Any material containing any detectable level of lead is subject to the Occupational Safety and Health Administration's (OSHA) Lead Exposure in Construction, Code of Federal Regulations, Title 29, Section 1926 (abbreviated as 29 CFR 1926). All work that disturbs this type of material must be performed in accordance with this and any other applicable standards.

All facilities built prior to 1979 for residential buildings and prior to 1993 for schools are suspect for lead-containing materials. Federal and state regulations recognize only the following methods of identification: analysis by an XRF instrument, paint bulk sample collection and analysis, or a combination of both. This inspection was conducted via XRF instrumentation. The parameters used to interpret the XRF results are outlined in the HUD guidelines and the XRF Performance Characteristics Sheets (PCS).

III. SAMPLING METHODOLOGY

A visual inspection of Buildings B, D and E was conducted by EE's CLP to identify major site features and surfaces and/or components suspected of being lead-containing paint or lead-based ceramic glaze. After identifying the materials suspected of containing lead paint or lead-based ceramic glaze, EE grouped the components, substrates, and room equivalents into testing combinations. A testing combination is defined as the room equivalent, component, and substrate. A room equivalent is an identifiable part of a building (e.g. classrooms, restrooms, mechanical rooms, exterior). Color does not accurately indicate painting history, and is not included when assigning testing combinations. If there was any reason to suspect that materials may have been installed or painted at different times, even if they appear uniform, they were assigned to separate testing combinations.

Following the visual inspection, screening for the presence of lead-based paint was performed on-site using a portable XRF instrument. The XRF has the ability to measure lead content in paint and ceramic glaze within the range of 0 to 50 milligrams per centimeter squared (mg/cm^2). The on-site inspection capability of the XRF instrument typically reduces the number of paint-chip samples that may need to be collected and

sent for laboratory analysis. The portable XRF instrument used in this inspection was manufactured by Niton Corporation.

The following specifications apply to the Niton XRF:

- Ability to report both the K and L shell line x-ray emission energies simultaneously and report the lead concentration in mg/cm^2.
- Accuracy for a single reading on all building materials within 0.2 mg/cm^2, at 95 percent confidence, at 0 to 1 mg/cm^2.
- Equipped with a 40-milli-curie (mCi) cadmium, 109-sealed, radioactive source. Substrate effects are automatically corrected through a complex algorithm and calibration.

IV. SAMPLE ANALYSIS

According to local, state, and federal standards, the surfaces and/or components that were analyzed with the Niton XRF instrument during this inspection are considered to be coated with a regulated lead-based ceramic glaze.

XRF SAMPLE ANALYSIS DATA
Old Pioneer Adult School
1651 East Rowland Avenue
West Covina, California 91791

Location	Component	Substrate	Estimate Quantity	XRF Result Mg/cm^2
Building B (Cafeteria)[1]				
Rooms 3 thru 6	Baseboard tile	Ceramic	184 Linear Feet	5.2
Building D (Classrooms 1 thru 4)				
No regulated lead-based paint and/or ceramic glaze was identified on the exterior and interior window components, transoms and baseboard within Rooms 1 thru 4.				
Building E (Classrooms 5 thru 8)				
No regulated lead-based paint and/or ceramic glaze was identified on the exterior and interior window components, interior vents and baseboard within Rooms 5 thru 8.				

Note: This table must be used in conjunction with the entire report.

V. CONCLUSIONS/RECOMMENDATIONS

EE conduct a limited lead-based paint/lead-based ceramic glaze inspection of Buildings B, D and E at the Old Pioneer Adult School located at 1651 East Rowland Avenue, West Covina, California. The following conclusions and/or recommendations apply:

Limited Lead-Based Paint/Ceramic Tile Inspection

[1] NOTE: 1) Terrazzo flooring will not be impacted per District Representative. 2) Mechanical room and Custodial closet have bare concrete flooring.

- Various interior surfaces and components, as directed by the District Representative, were tested via the Niton XRF for the presence of lead.
- The components listed in the previous table were identified as being coated with a lead-based paint or lead-containing glaze.
- The painted surfaces were observed to be in good to fair condition during this inspection.
- A fully representative number of XRF readings were taken at the project site. The results of these assays are presented in the XRF Summary Results spreadsheets.

It is recommended that all renovation, remodelling, construction, or demolition actions that might potentially disturb surfaces covered with lead-based paint be performed by properly trained and qualified personnel.

VI. DISCLAIMER/REPORT LIMITATIONS

All reports and recommendations are based on conditions and practices observed and information made available to Executive Environmental (EE) by the client and the designated sites/facilities on the days sampling was conducted. This report does not purport to set forth all hazards, nor to indicate that other hazards do not exist. No responsibility is assumed by EE for the control or correction of conditions or practices existing at the facilities, or at any other premises surveyed by EE, for and on the behalf of the client. Services provided by EE shall be governed by the standard of practice for professional services measured at the time those services are rendered.

All information contained in this report is proprietary and limited to the scope of services, parameters of the analytical methods used and the conditions present at the time of this inspection. Any references to quantities are considered estimates and are not to be construed as actual.

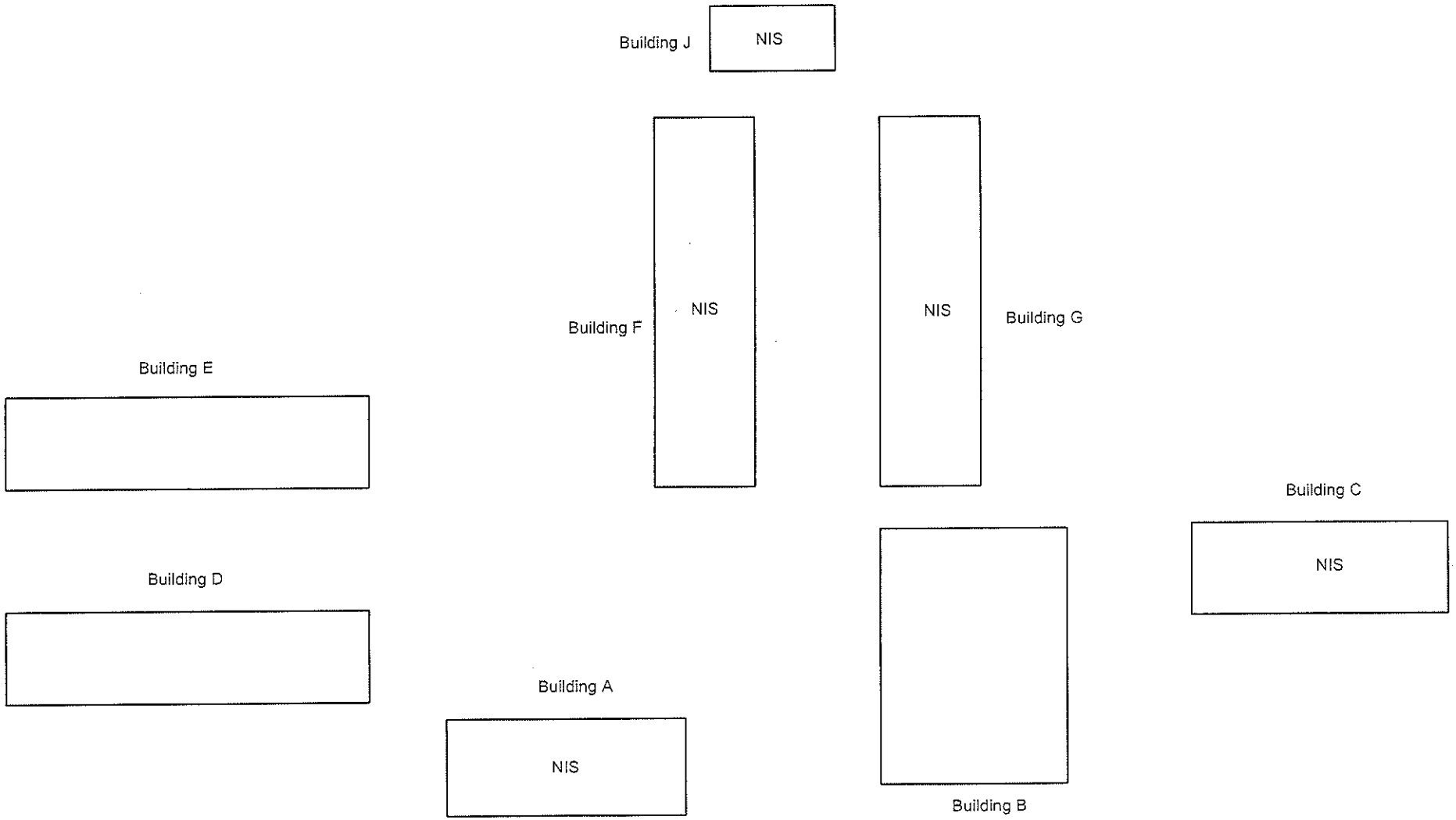
APPENDIX A – XRF SUMMARY RESULTS

Reading No	Time	Type	Building	Location	Component	Substrate	Side	Condition	Results	PbC	PbC Error	PbL	PbL Error	PbK	PbK Error
1	4/17/18	Paint			Shutter calibrate					1.76	0	0.3	0	0	0
2	4/17/18	Paint			Calibrate				Positive	1.1	0.3	1.1	0.3	0.7	2.3
3	4/17/18	Paint			Calibrate				Positive	0.9	0.1	0.9	0.1	0.14	0.91
4	4/17/18	Paint			Calibrate				Positive	0.9	0.2	0.9	0.2	0.21	1.45
5	4/17/18	Paint	Building D (Classrooms 1 thru 4)	Exterior	Window frame	Wood	A	Intact	Negative	0.23	0.18	0.23	0.18	0.4	1.5
6	4/17/18	Paint	Building D (Classrooms 1 thru 4)	Exterior	Transom	FRP	A	Intact	Negative	0	0.02	0	0.02	-1.27	2.01
7	4/17/18	Paint	Building B (Cafeteria)	Exterior	Window frame	Wood	A	Intact	Null	0.7	0.1	0.7	0.1	0.9	0.3
8	4/17/18	Paint	Building B (Cafeteria)	Exterior	Window frame	Wood	A	Intact	Negative	0.02	0.1	0.02	0.1	0.3	1.38
9	4/17/18	Paint	Building E (Classrooms 5 thru 8)	Exterior	Window frame	Wood	A	Poor	Null	0.7	0.1	0.7	0.1	0.9	0.3
10	4/17/18	Paint	Building E (Classrooms 5 thru 8)	Exterior	Window frame	Wood	A	Poor	Negative	0.5	0.2	0.5	0.2	1	0.7
11	4/17/18	Paint	Building B (Cafeteria)	Exterior	Window frame	Metal	C	Intact	Negative	0.14	0.15	0.14	0.15	-0.95	2.46
12	4/17/18	Paint	Building B (Cafeteria)	Exterior	Transom	Glass	C	Poor	Null	0	0.03	0	0.03	-4.03	204.57
13	4/17/18	Paint	Building B (Cafeteria)	Exterior	Transom	Glass	C	Intact	Null	0	0.02	0	0.02	2	9.8
14	4/17/18	Paint	Building B (Cafeteria)	Exterior	Window frame	Metal	C	Poor	Negative	0	0.02	0	0.02	0.14	1.95
15	4/17/18	Paint			Calibrate				Positive	1.1	0.3	1.1	0.3	0.7	2.5
16	4/17/18	Paint			Calibrate				Positive	0.9	0.2	0.9	0.2	0.5	1.5

Reading No	Time	Type	Building	Location	Component	Substrate	Side	Condition	Results	PbC	PbC Error	PbL	PbL Error	PbK	PbK Error
17	4/17/18	Paint			Calibrate				Positive	1	0.2	1	0.2	0.6	1.5
18	4/18/18	Paint			Shutter calibrate					1.67	0	0.28	0	0	0
19	4/18/18	Paint			Calibrate				Positive	1.4	0.4	1.4	0.4	0.9	2.8
20	4/18/18	Paint			Calibrate				Positive	1.6	0.7	1.6	0.7	1.2	4.3
21	4/18/18	Paint			Calibrate				Positive	1.4	0.6	1.4	0.6	1.2	3.9
22	4/18/18	Paint	Building D (Classrooms 1 thru 4)	Room 1	Baseboard	Wood	D	Intact	Negative	0.04	0.08	0.04	0.08	0.4	1.5
23	4/18/18	Paint	Building D (Classrooms 1 thru 4)	Room 1	Window frame	Wood	A	Intact	Negative	0.04	0.06	0.04	0.06	0.23	1.68
24	4/18/18	Paint	Building D (Classrooms 1 thru 4)	Room 3	Baseboard	Wood	B	Intact	Negative	0.07	0.15	0.07	0.15	0.03	1.8
25	4/18/18	Paint	Building D (Classrooms 1 thru 4)	Room 3	Window frame	Wood	A	Intact	Negative	0.11	0.13	0.11	0.13	0.2	1.88
26	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 5	Baseboard	Wood	D	Intact	Negative	0.02	0.05	0.02	0.05	0.6	1.7
27	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 5	Vent	Metal	A	Intact	Negative	0.05	0.08	0.05	0.08	-0.55	2.51
28	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 5	Window frame	Wood	A	Intact	Negative	0.04	0.05	0.04	0.05	0.11	1.84
29	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 7	Baseboard	Wood	B	Intact	Negative	0.03	0.1	0.03	0.1	0.7	1.5
30	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 7	Vent	Metal	B	Intact	Negative	0.06	0.13	0.06	0.13	0.5	2.2
31	4/18/18	Paint	Building E (Classrooms 5 thru 8)	Room 7	Window frame	Wood	A	Intact	Negative	0.15	0.13	0.15	0.13	0.9	1.4

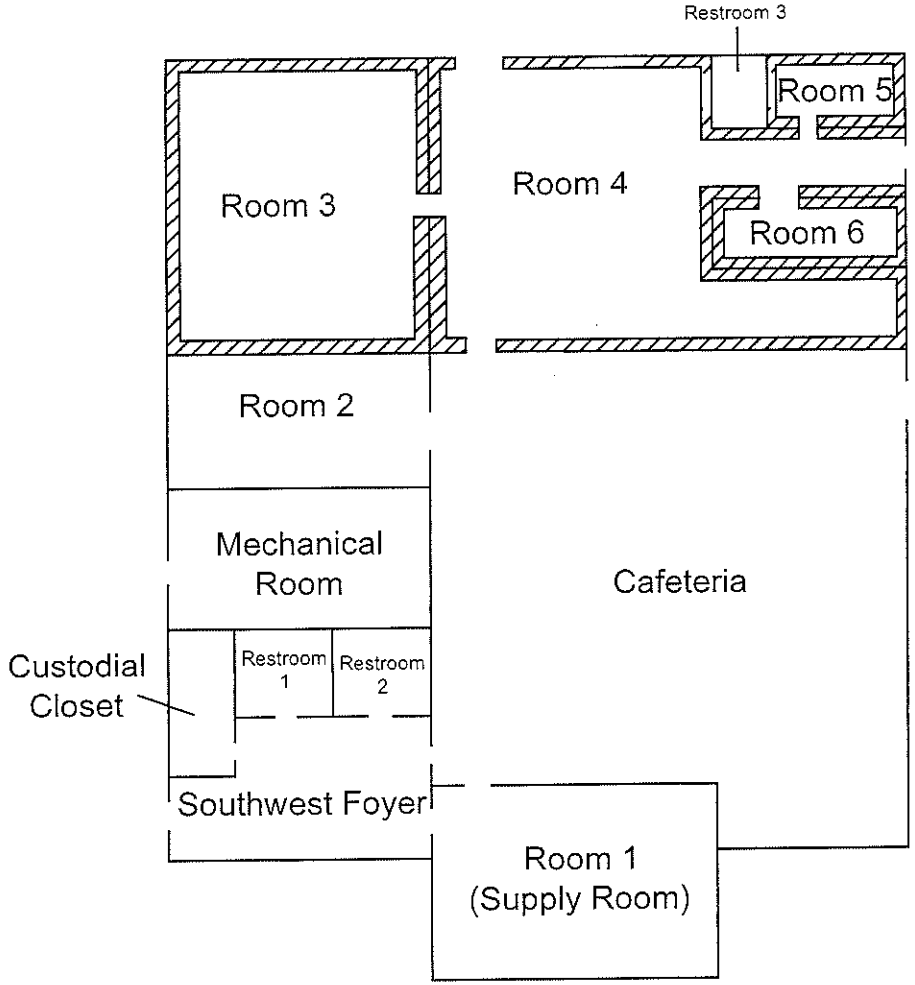
Reading No	Time	Type	Building	Location	Component	Substrate	Side	Condition	Results	PbC	PbC Error	PbL	PbL Error	PbK	PbK Error
32	4/18/18	Paint	Building B (Cafeteria)	Room 1	Baseboard	Wood	B	Intact	Negative	0.03	0.06	0.03	0.06	0.3	1.65
33	4/18/18	Paint	Building B (Cafeteria)	Southwest foyer	Baseboard	Wood	A	Intact	Negative	0	0.02	0	0.02	0.14	1.58
34	4/18/18	Paint	Building B (Cafeteria)	Southwest foyer	Window frame	Wood	A	Intact	Negative	0	0.02	0	0.02	0.18	1.35
35	4/18/18	Paint	Building B (Cafeteria)	Cafeteria	Baseboard	Wood	B	Intact	Negative	0.02	0.04	0.02	0.04	0.8	1.6
36	4/18/18	Paint	Building B (Cafeteria)	Cafeteria	Window frame	Wood	A	Intact	Negative	0	0.02	0	0.02	-0.15	1.82
37	4/18/18	Paint	Building B (Cafeteria)	Cafeteria	Transom	Glass	A	Intact	Negative	0	0.02	0	0.02	1	2.8
38	**4/18/18**	**Paint**	**Building B (Cafeteria)**	**Room 3**	**Baseboard tile**	**Ceramic**	**A**	**Intact**	**Positive**	**5.2**	**2.5**	**5.2**	**2.5**	**9**	**10.2**
39	4/18/18	Paint	Building B (Cafeteria)	Room 3	Floor	Concrete		Intact	Negative	0.02	0.03	0.02	0.03	0.04	0.96
40	4/18/18	Paint	Building B (Cafeteria)	Room 4	Window frame	Metal	C	Intact	Negative	0.16	0.13	0.16	0.13	-0.13	2.85
41	4/18/18	Paint	Building B (Cafeteria)	Room 4	Window sash	Metal	C	Intact	Negative	0.14	0.15	0.14	0.15	-0.21	2.47
42	4/18/18	Paint	Building B (Cafeteria)	Room 4	Transom	Glass	C	Poor	Negative	0	0.02	0	0.02	0.1	2.37
43	4/18/18	Paint							Positive	1.5	0.4	1.5	0.4	1	2.8
44	4/18/18	Paint							Positive	1.6	0.5	1.6	0.5	1.4	2.8
45	4/18/18	Paint							Positive	1.5	0.6	1.5	0.6	1.2	4.1

APPENDIX B – SITE DRAWING



Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** Campus Wide
EXECUTIVE ENVIRONMENTAL **HEALTH & SAFETY SIMPLIFIED**		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue West Covina, California 91791

Building B
(Cafeteria)



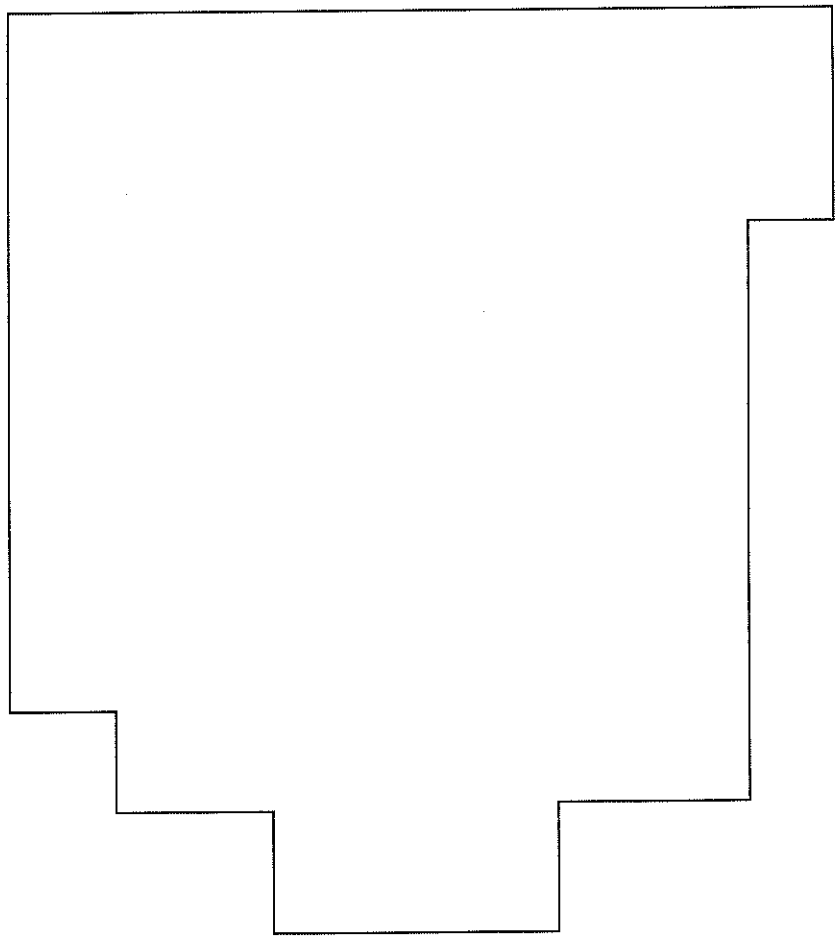
SIDE=C
SIDE=B
SIDE=D
SIDE=A

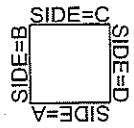
▨ - Ceramic tile Baseboard

N

Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

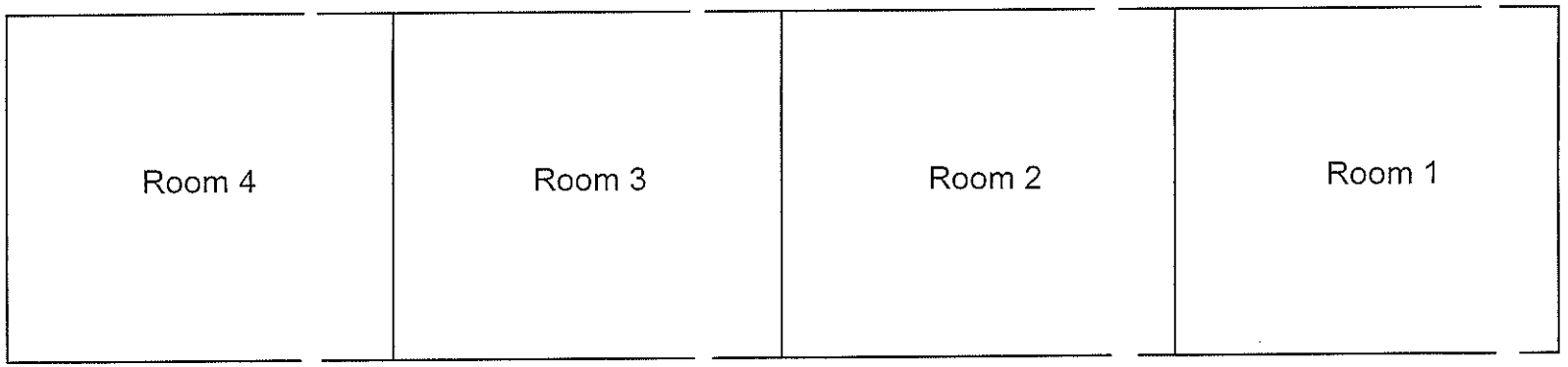
Building B
(Cafeteria)
Exterior

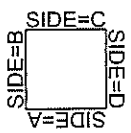


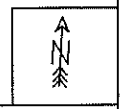


Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** No Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

Building D
(Rooms 1 through 4)

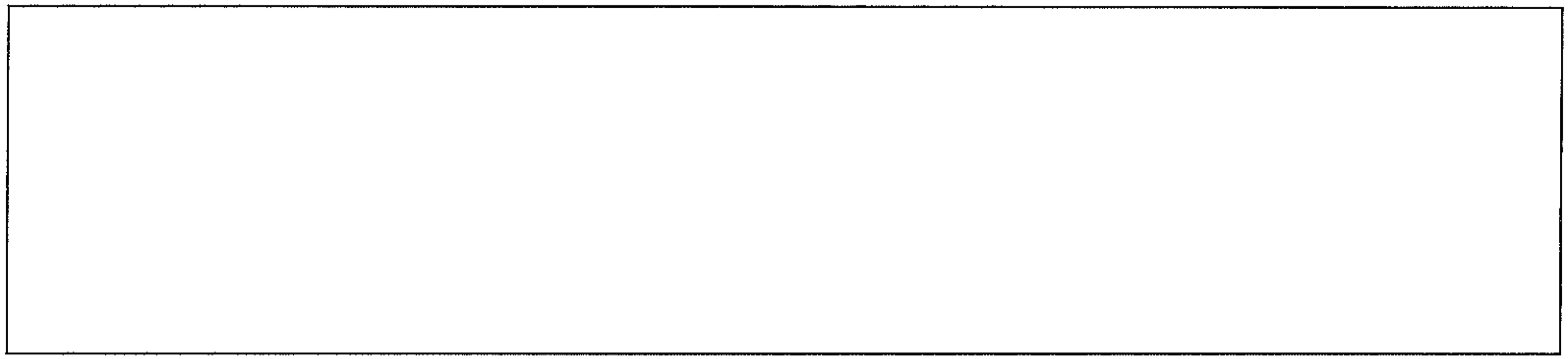


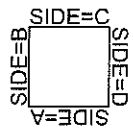




Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** No Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

Building D
Exterior

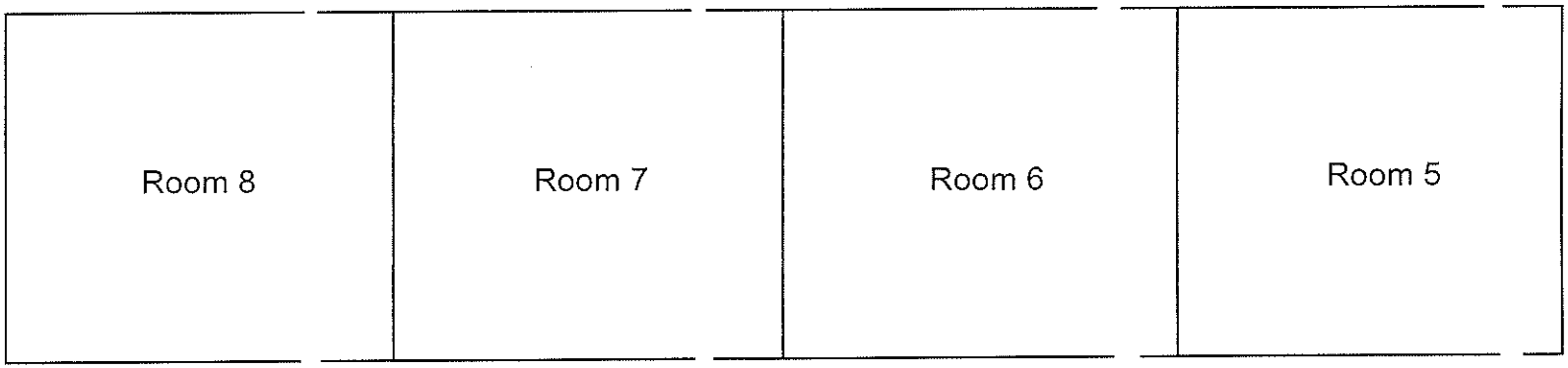


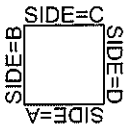


N

Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** No Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL **HEALTH & SAFETY SIMPLIFIED**		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

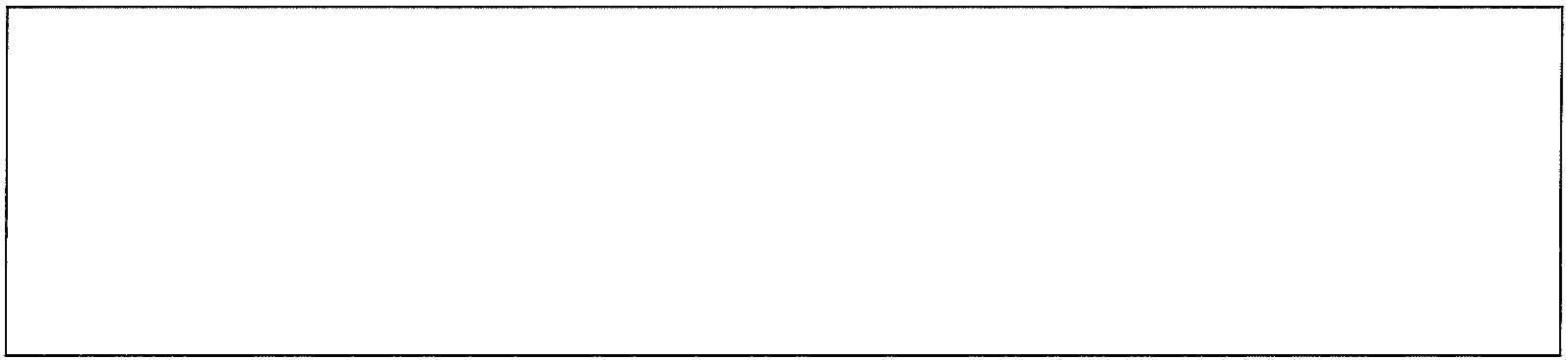
Building E
(Rooms 5 through 8)

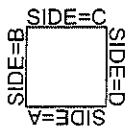




Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** No Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL **HEALTH & SAFETY SIMPLIFIED**		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

Building E
Exterior





Client: Covina-Valley USD	**Project #:** 18-Z0172-0076	**Info:** No Lead Based Paint Identified
EXECUTIVE ENVIRONMENTAL HEALTH & SAFETY SIMPLIFIED		**Site:** Old Pioneer Adult School **Address:** 1651 East Rowland Avenue WestCovina, California 91791

APPENDIX C – LEAD HAZARD EVALUATION REPORT

State of California—Health and Human Services Agency

California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation 4/18/18

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1651 E. ROWLAND AVE.	WEST COVINA	L.A.	91791

Construction date (year) of structure	Type of structure		Children living in structure?
UNKNOWN	☐ Multi-unit building	☑ School or daycare	☐ Yes ☑ No
	☐ Single family dwelling	☐ Other_____	☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
COVINA VALLEY USD (ALICE STRAIGER)	(626) 974-7600

Address [number, street, apartment (if applicable)]	City	State	Zip Code
519 E. BADILLO ST.	COVINA	CA	91723

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other_____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
George Valverde	(626) 441-7050

Address [number, street, apartment (if applicable)]	City	State	Zip Code
310 E. Foothill Boulevard Suite 200	Arcadia	CA	91006

CDPH certification number	Signature	Date
24605		4/18/18

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

CDPH 8552 (6/07)

APPENDIX D – XRF PERFORMANCE CHARACTERISTICS SHEET

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*
Tested Model: *XLp 300*
Source: ^{109}Cd
Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A, and XLi 303A.
XLp 300A, XLp 301A, XLp 302A, and XLp 303A.
XLi 700A, XLi 701A, XLi 702A, and XLi 703A.
XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	1.0 1.0 1.0 1.0 1.0 1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)

	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges of thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.*

Appendix F

Preliminary Hydrology Study

PRELIMINARY HYDROLOGY STUDY

1651 East Rowland Avenue
Assessor's Parcel 8442-018-900
West Covina, California
(Preliminary Review 19-05)

PREPARED FOR:

Lewis Land Developers, LLC
1156 North Mountain Avenue
Upland, CA 91786

PREPARED BY:

DJP Engineering, Inc.
344 South Citrus Avenue
Covina, CA 91723
(626) 966-8200

(May 2020)

Table of Contents:

Purpose

The intent of this Preliminary Hydrology Study ("Study") is to compare storm runoff rates and volumes emanating from areas tributary to the Pioneer School site and its proposed development. A variety of rainfall events will be analyzed for comparative purposes and to quantify design requirements. The Study will attempt to normalize anticipated flow rates for this area in accordance with the original Bond Program storm drain design. The flow rates and volumes established in this Study will used as a basis of design for the storm drain system developed for the project.

This study is based on Los Angeles County Department of Public Works Rational Method Hydrology. The Topographic Survey, Preliminary Grading Plan and proposed Site Plan will serve as references for the study.

Site Description and Project Overview

The Site, consisting of 9.1 acres, is located at 1651 E. Rowland Avenue in the City of West Covina. It served as an elementary school in the Covina-Valley Unified School District from the late 1960s to about 1980. Various educational and vocational uses have occupied the site since 1980, but the original school buildings and ancillary improvements have remained. The site is bounded by single family residential development along the west and north half and by commercial property along the east side and northeast corner.

Prevailing drainage for the area is southwesterly at a rate of approximately 1%. The City of West Covina holds storm drain easements over strips of land along the north and west side of the site. An existing earthen swale within these easement strips conveys runoff from a portion of the school site, residential property along Eileen Street, and a portion of the Food 4 Less/Big Lots shopping center adjacent to the northeast corner of the site. The swale outlets through an existing parkway drain onto Rowland Avenue at the southwest corner of the site.

The drainage area of the properties along Eileen Street and the shopping center which contribute storm runoff to the school site is approximately 5.8 acres. The tributary areas are fairly equally split between the two land uses. Runoff from the Food 4 Less/Big Lots shopping center is picked up in a catch basin at the southwest corner of the property. The runoff collected at this catch basin is conveyed via pipe underground along the adjacent westerly residential property to the earthen swale west side of Eileen Street on the school site. A curb depression was also constructed at this location to discharge runoff from Eileen Street into the swale. The pipe drainage and the runoff from Eileen Street meander along the swale to the parkway drain outlet at Rowland Avenue.

Approximately 70% of the school site currently drains to the swale as well. The remainder of the school site, primarily asphalt covered parking stalls, driveways, and

playground areas, drain out to Rowland Avenue by sheet flowing through the parking lot/drop-off zone along the southeast side of the school.

Proposed development of the property will consist of both detached single family homes and multifamily townhouse buildings. The townhouse buildings will be located on the east half of the project, adjacent to the commercial properties. The home clusters will be located along the west half of the site and along the north side adjacent to the existing residential developments. The overall layout and vehicle circulation pattern will allow storm runoff from the proposed development to perpetuate the school's current drainage split.

Drainage Overview

The site and surrounding area west of Azusa Avenue and north of Rowland Street, as shown on the Pre-Development Hydrology Map (approx. 36.4 acres), are tributary to Line "C" Unit 4 Project 599 located in Lark Ellen Avenue of the 1958 Los Angeles County Storm Drain Bond Issue. Runoff from this area is conveyed along Rowland Avenue via street flow and intercepted by catch basins near the intersection with Lark Ellen Avenue, approximately 1600 feet west of the site.

Watershed times of concentration were calculated for both the pre and post development conditions. For the capital storm event, a pre-development time of concentration of 18 minutes was calculated for the watershed to the pick-up at Lark Ellen Avenue. The peak runoff rate for the watershed is approximately 70 cubic feet per second (cfs). The calculated flow rate emanating from the school site and northerly tributary areas is 28.7 cfs, of which, 17.5 cfs is from the school. The proposed development actually reduces peak runoff rates slightly, approximately 5%, for most rainfall events. This is primarily due to an elongated drainage path within the development resulting in slightly longer times of concentration. The runoff volumes are higher for the developed condition because of larger impervious area.

Methodology

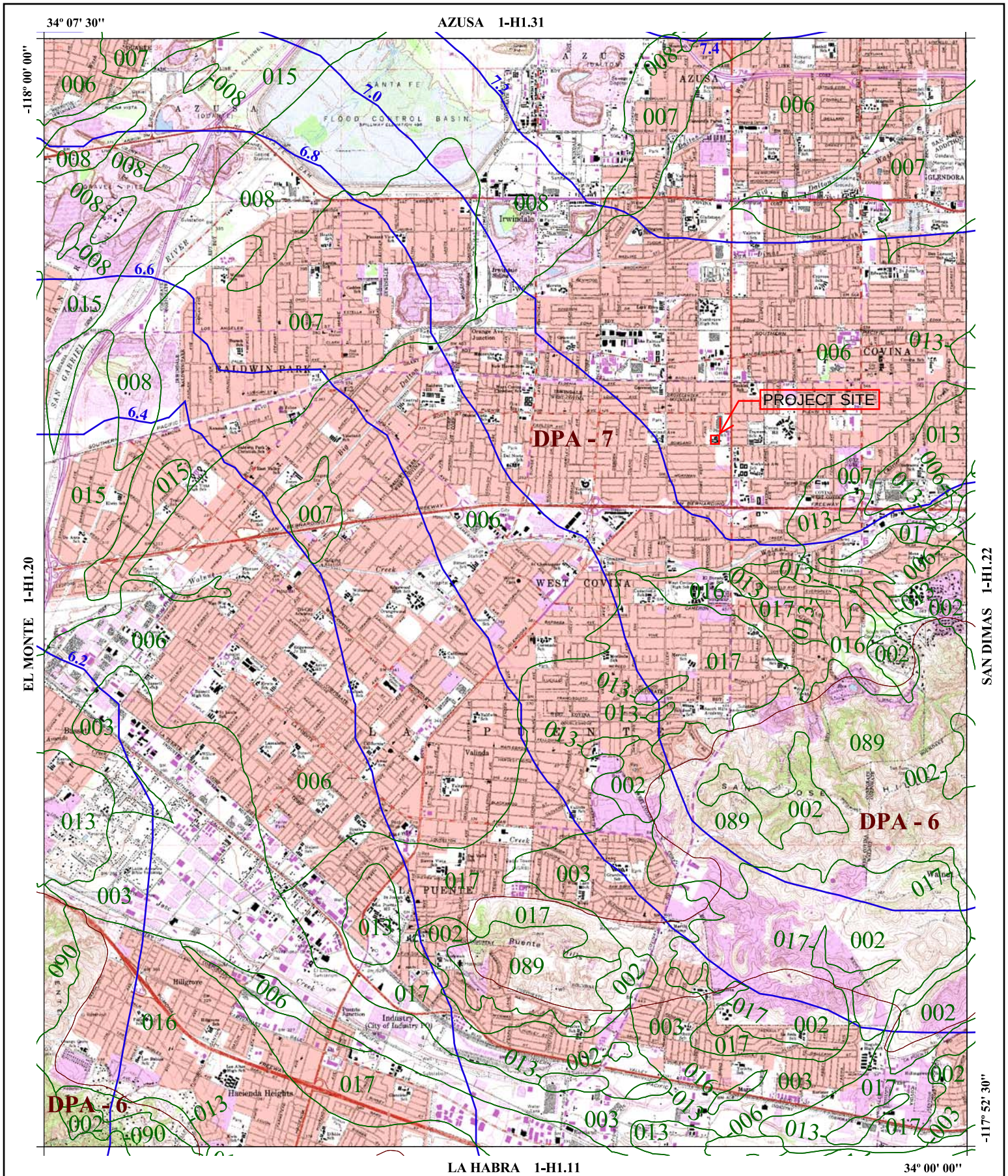
Hydrologic calculations in this study were performed in conformance with the Los Angeles County Hydrology Manual, dated January 2006, utilizing the Modified Rational Method TC Calculator. The Modified Rational Method equation relates rainfall intensity, time of concentration, runoff coefficient, and drainage area size to the direct runoff from each drainage sub-area. Soil types, rainfall data and runoff coefficients were obtained from the LACDPW Hydrology Manual. Volumetric runoff differentials were calculated for pre- and post-development of the project site based on the County's capital storm criteria. Construction of the proposed residential development and other related improvements increases the Site's impervious percentage to a post construction condition of approximately 80%. The pre and post construction impervious ratios were selected based on the LACDPW Hydrology Manual Appendix D Impervious data table.

Recommendations

It is recommended that the offsite tributary runoff from the Food 4 Less/Big Lots shopping center be intercepted in a pipe at Eileen Street and rerouted down the proposed westerly driveway to onsite infiltration areas. A catch basin should also be constructed within the Eileen Street cul-de-sac to pick up runoff within the street and convey it to the same infiltration area. Capital storm peak runoff from these two sources is about 14 cubic feet per second, which can be conveyed by a 24 inch diameter pipe. An emergency vehicle access driveway is also proposed at the end of the cul-de-sac which will serve as secondary overflow from Eileen Street in the event of a pipe blockage.

Onsite runoff will be picked up in catch basins located around the garage entrance driveways intersecting the main east and west driveway loops. These catch basins will be piped to infiltration areas near each drive approach with Rowland Avenue. Parkway drains will be provided to outlet peak flows onto Rowland Avenue. The anticipated peak flow rate along the easterly driveway is approximately 8 cfs. The peak flow rate to the westerly driveway is about 15 cfs. It is recommended that the infiltration areas be designed for a retention volume of approximately 26,000 cubic feet.

HYDROLOGIC ANALYSIS



N
W E
S

016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

BALDWIN PARK
50-YEAR 24-HOUR ISOHYET

1-H1.21

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

About | Legend | Layers

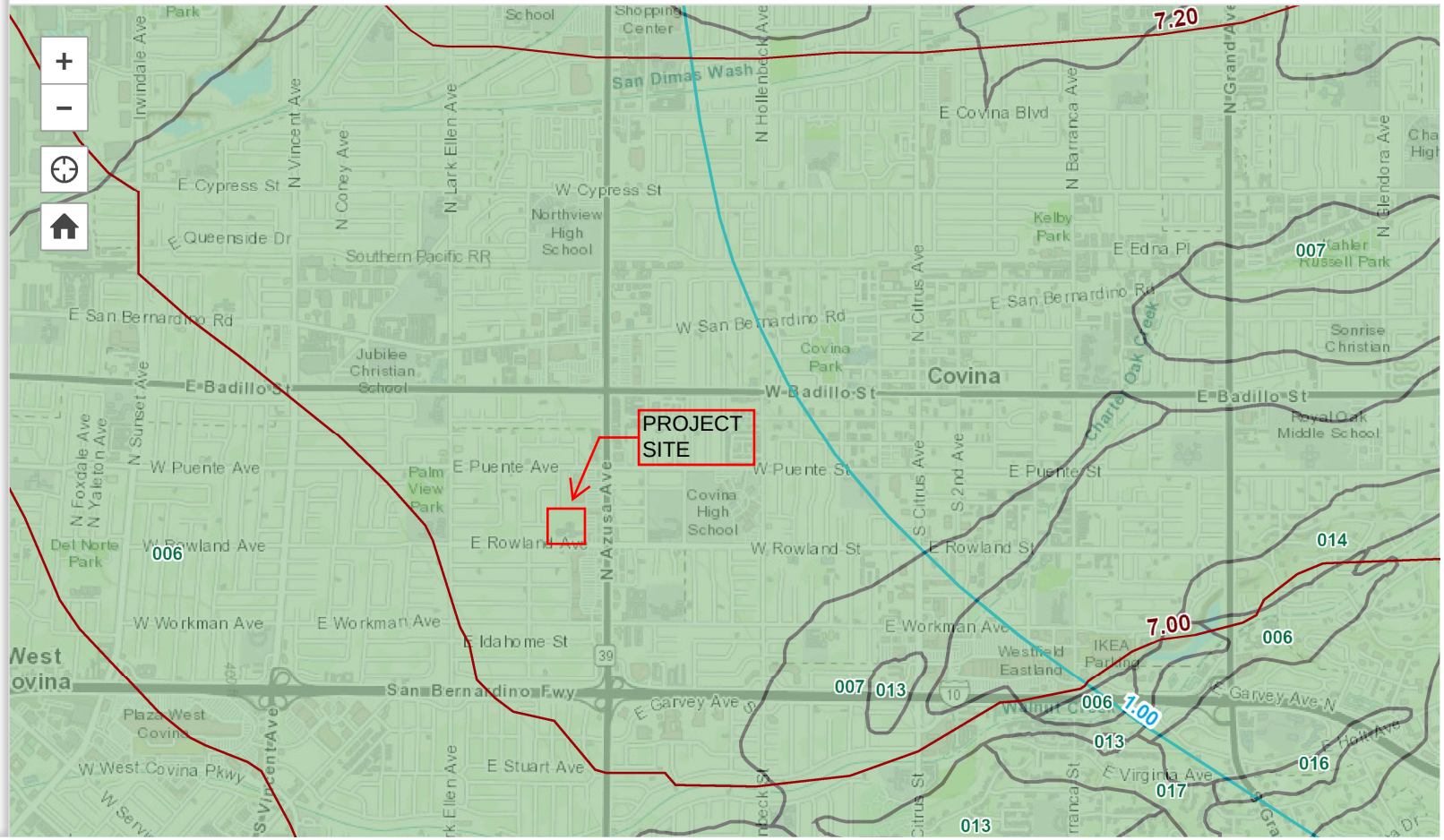
Legend

50yr Two Tenths (Rainfall)

Soils 2004

Final 85th Percentile, 24-hr Rainfall

LA County Hydrology Map



Pre-development

Sub-Area	Area (Ac.)	% Impervious	Area x %Imp.	L(ft.)	% Area	Q50 (cfs)	Q25 (cfs)	Q10 (cfs)	Q5 (cfs)	Q2 (cfs)	Q 85th (cfs)
A-1	2.9	0.92	2.67	512	0.08	5.58	4.55	3.28	2.40	1.41	0.22
A-2	2.9	0.45	1.31		0.08	5.58	4.55	3.28	2.40	1.41	0.22
A-3	9.1	0.53	4.82	728	0.25	17.51	14.29	10.30	7.53	4.41	0.69
A-4	0.77	0.87	0.67		0.02	1.48	1.21	0.87	0.64	0.37	0.06
A-5	20.7	0.45	9.32	1530	0.57	39.84	32.50	23.43	17.13	10.03	1.58
Total	36.37	0.52	18.78	2770		70.00	57.10	41.16	30.10	17.63	2.77

Frequency	Qpeak total (cfs)	Run-off Volume (Ac-ft)	Tc (min.)
50 yr	70.00	12.33	18
25 yr	57.10	10.65	20
10yr	41.16	8.48	24
5yr	30.10	6.81	28
2yr	17.63	4.39	30
85th	2.77	1.55	98

Post-development

Sub-Area	Area (Ac.)	% Impervious	Area x %Imp.	L(ft.)	% Area	Q50 (cfs)	Q25 (cfs)	Q10 (cfs)	Q5 (cfs)	Q2 (cfs)	Q 85th (cfs)
A-1	2.90	0.92	2.67	512	0.08	5.33	4.39	3.20	2.37	1.46	0.24
A-2	2.90	0.45	1.31		0.08	5.33	4.39	3.20	2.37	1.46	0.24
A-3	9.10	0.80	7.28	980	0.25	16.73	13.77	10.04	7.44	4.58	0.75
A-4	0.77	0.87	0.67		0.02	1.42	1.17	0.85	0.63	0.39	0.06
A-5	20.70	0.45	9.32	1525	0.57	38.05	31.33	22.85	16.92	10.42	1.71
Total	36.37	0.58	21.24	3017		66.86	55.04	40.14	29.72	18.30	3.01

Frequency	Qpeak total (cfs)	Run-off Volume (Ac-ft)	Tc (min.)
50 yr	66.86	13.17	20
25 yr	55.04	11.41	22
10yr	40.14	9.12	26
5yr	29.72	7.36	30
2yr	18.30	4.77	30
85th	3.01	1.7	99

Peak Flow Hydrologic Analysis

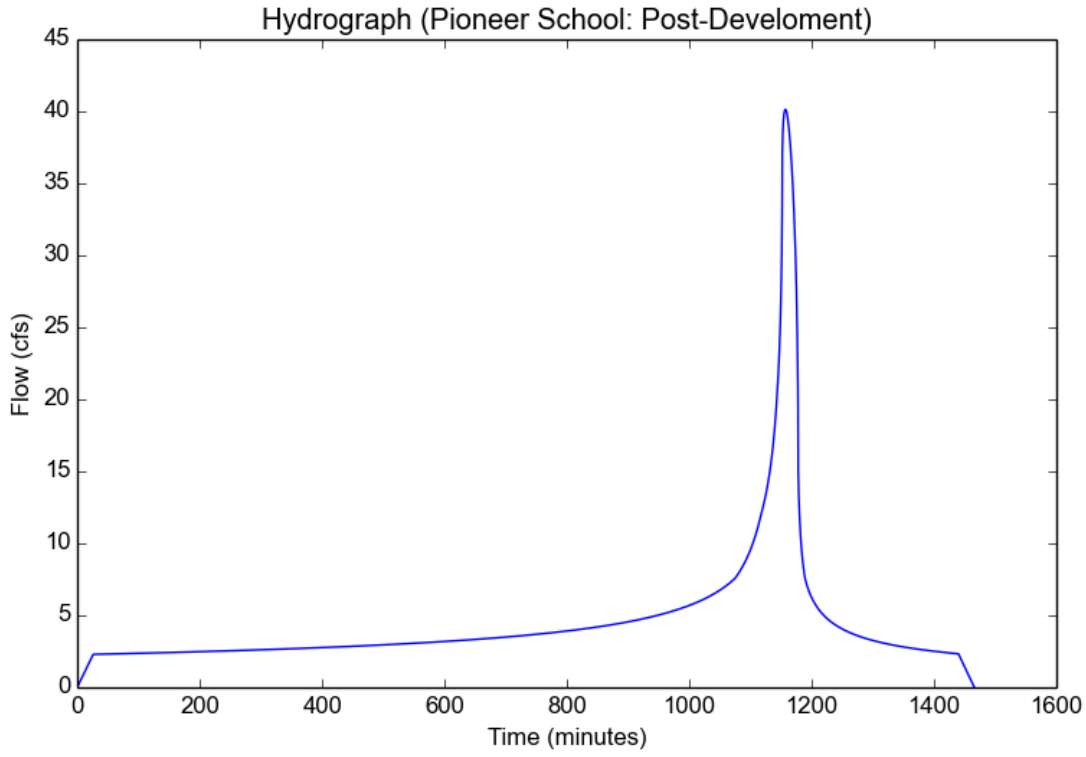
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 10.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	5.0337
Peak Intensity (in/hr)	1.3838
Undeveloped Runoff Coefficient (Cu)	0.656
Developed Runoff Coefficient (Cd)	0.7975
Time of Concentration (min)	26.0
Clear Peak Flow Rate (cfs)	40.1374
Burned Peak Flow Rate (cfs)	40.1374
24-Hr Clear Runoff Volume (ac-ft)	9.1179
24-Hr Clear Runoff Volume (cu-ft)	397175.356



Peak Flow Hydrologic Analysis

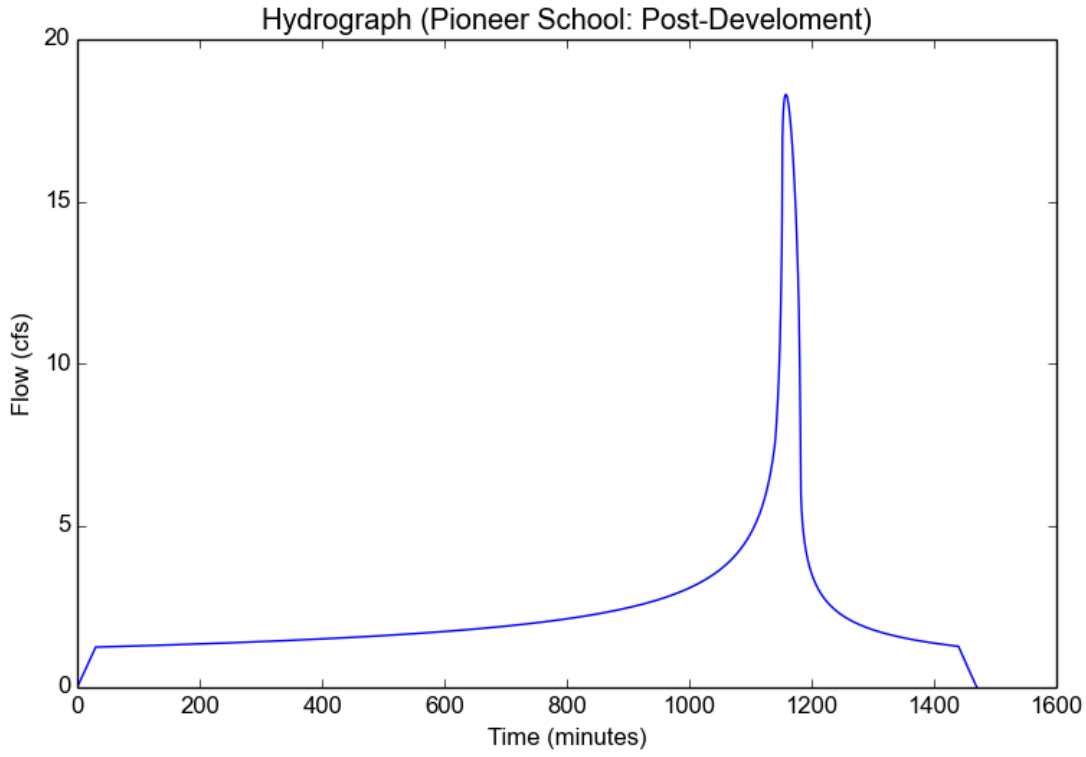
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 2.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	2-yr
Fire Factor	0
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.7283
Peak Intensity (in/hr)	0.7012
Undeveloped Runoff Coefficient (Cu)	0.4655
Developed Runoff Coefficient (Cd)	0.7175
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	18.2996
Burned Peak Flow Rate (cfs)	18.2996
24-Hr Clear Runoff Volume (ac-ft)	4.7651
24-Hr Clear Runoff Volume (cu-ft)	207568.5006



Peak Flow Hydrologic Analysis

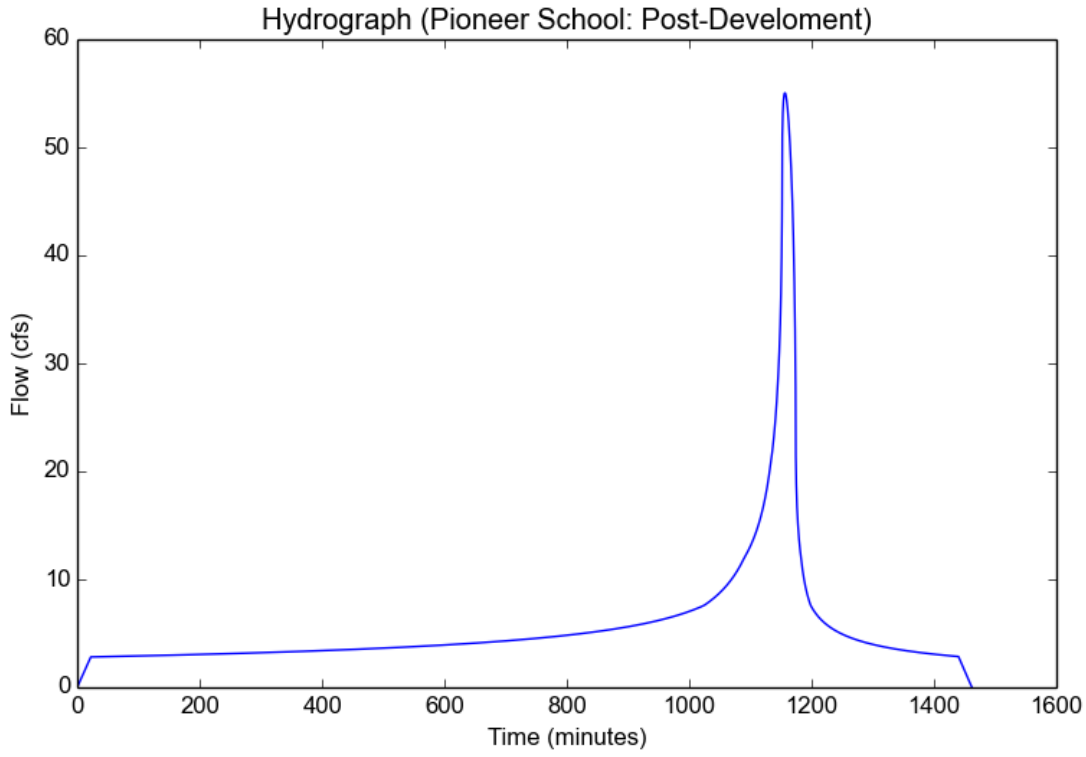
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 25.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.1899
Peak Intensity (in/hr)	1.8406
Undeveloped Runoff Coefficient (Cu)	0.7148
Developed Runoff Coefficient (Cd)	0.8222
Time of Concentration (min)	22.0
Clear Peak Flow Rate (cfs)	55.0418
Burned Peak Flow Rate (cfs)	55.0418
24-Hr Clear Runoff Volume (ac-ft)	11.4116
24-Hr Clear Runoff Volume (cu-ft)	497089.2327



Peak Flow Hydrologic Analysis

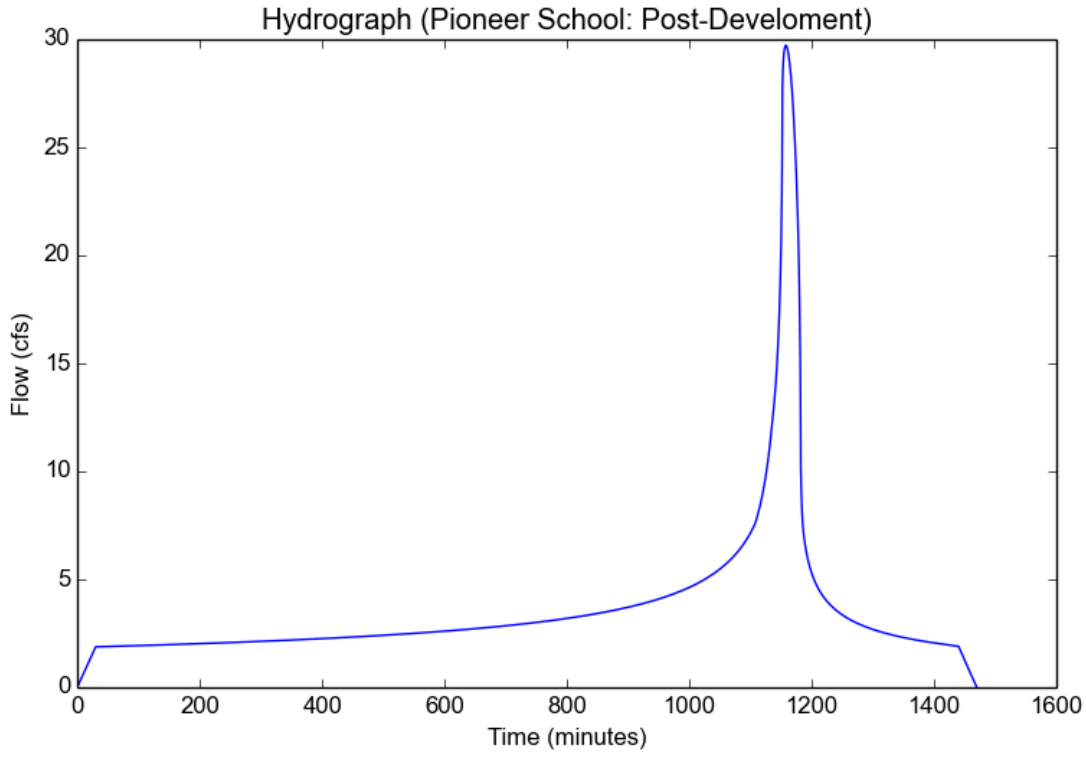
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 5.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	5-yr
Fire Factor	0
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	4.1172
Peak Intensity (in/hr)	1.0582
Undeveloped Runoff Coefficient (Cu)	0.5959
Developed Runoff Coefficient (Cd)	0.7723
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	29.7235
Burned Peak Flow Rate (cfs)	29.7235
24-Hr Clear Runoff Volume (ac-ft)	7.357
24-Hr Clear Runoff Volume (cu-ft)	320472.4346



Peak Flow Hydrologic Analysis

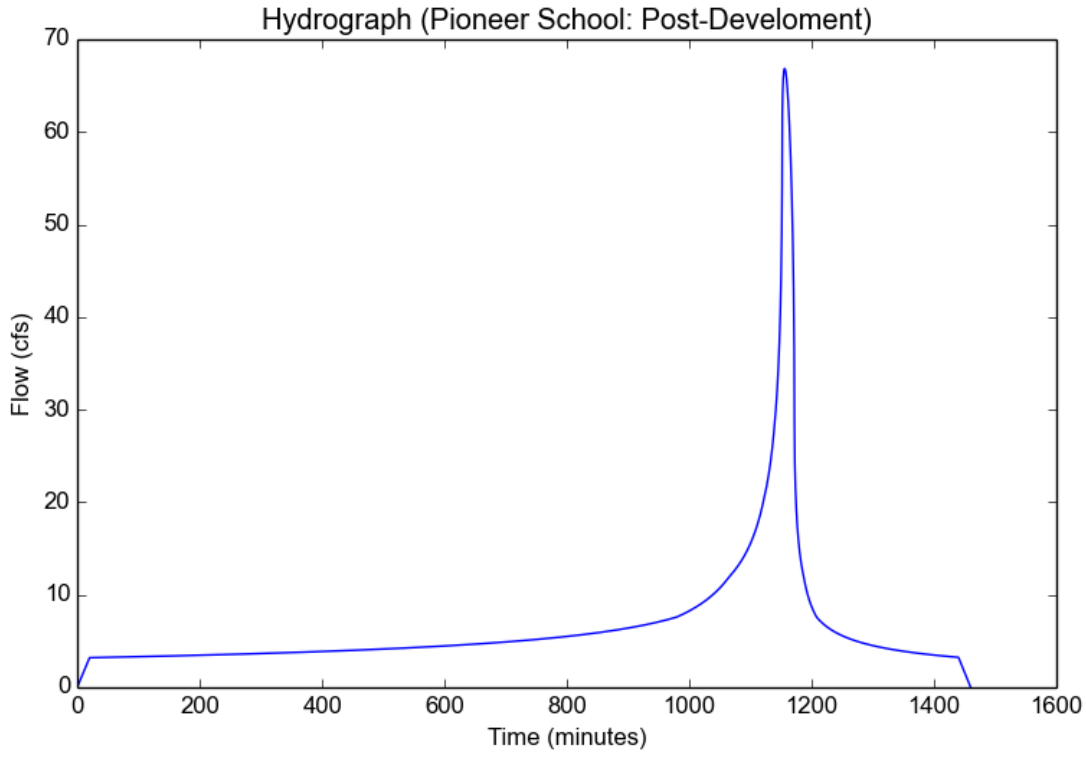
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 50.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	7.05
Peak Intensity (in/hr)	2.1924
Undeveloped Runoff Coefficient (Cu)	0.7534
Developed Runoff Coefficient (Cd)	0.8384
Time of Concentration (min)	20.0
Clear Peak Flow Rate (cfs)	66.8553
Burned Peak Flow Rate (cfs)	66.8553
24-Hr Clear Runoff Volume (ac-ft)	13.1717
24-Hr Clear Runoff Volume (cu-ft)	573758.9329



Peak Flow Hydrologic Analysis

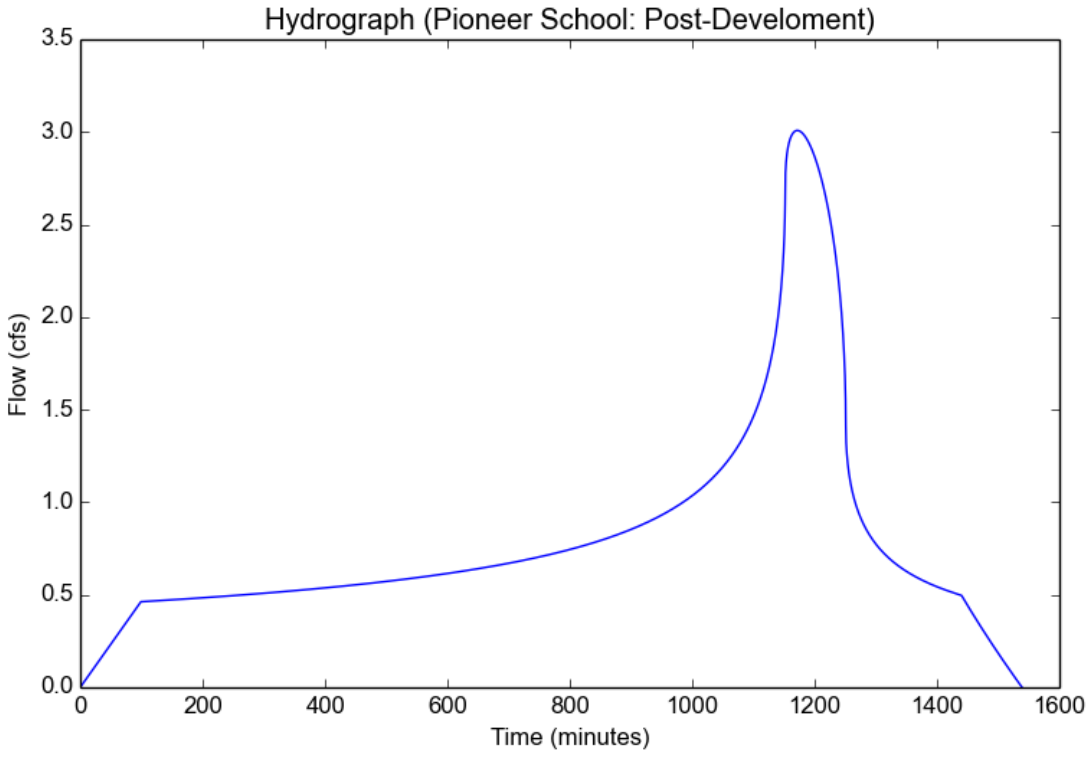
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Post-devepoment 85th.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Post-Develoment
Area (ac)	36.37
Flow Path Length (ft)	3017.0
Flow Path Slope (vft/hft)	0.0118
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.58
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.1466
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.564
Time of Concentration (min)	99.0
Clear Peak Flow Rate (cfs)	3.0081
Burned Peak Flow Rate (cfs)	3.0081
24-Hr Clear Runoff Volume (ac-ft)	1.6955
24-Hr Clear Runoff Volume (cu-ft)	73855.3158



Peak Flow Hydrologic Analysis

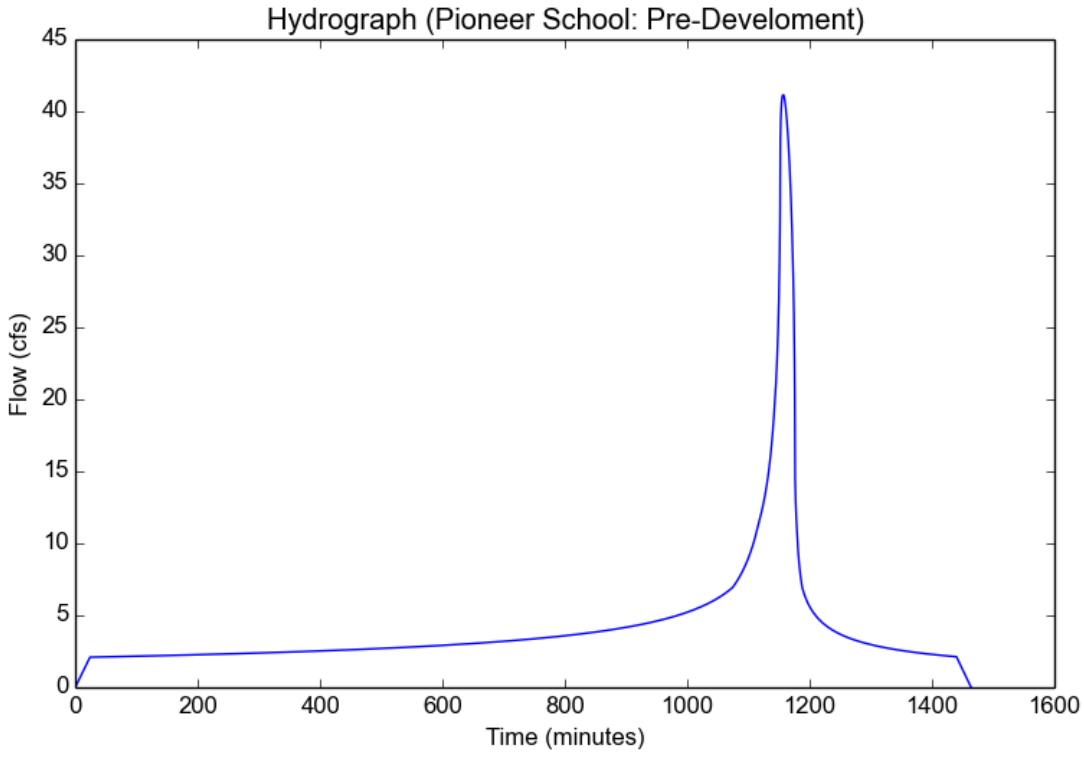
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 10.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	5.0337
Peak Intensity (in/hr)	1.4368
Undeveloped Runoff Coefficient (Cu)	0.6658
Developed Runoff Coefficient (Cd)	0.7876
Time of Concentration (min)	24.0
Clear Peak Flow Rate (cfs)	41.1564
Burned Peak Flow Rate (cfs)	41.1564
24-Hr Clear Runoff Volume (ac-ft)	8.4767
24-Hr Clear Runoff Volume (cu-ft)	369243.95



Peak Flow Hydrologic Analysis

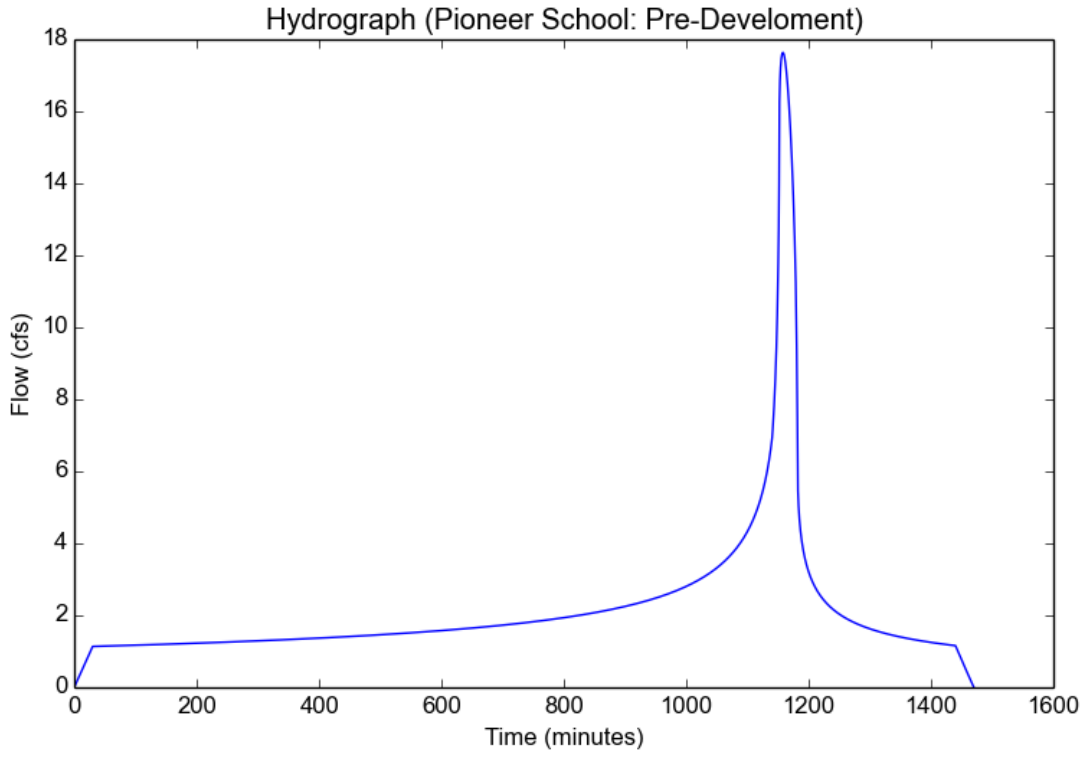
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 2.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	2-yr
Fire Factor	0
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.7283
Peak Intensity (in/hr)	0.7012
Undeveloped Runoff Coefficient (Cu)	0.4655
Developed Runoff Coefficient (Cd)	0.6914
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	17.6347
Burned Peak Flow Rate (cfs)	17.6347
24-Hr Clear Runoff Volume (ac-ft)	4.3914
24-Hr Clear Runoff Volume (cu-ft)	191291.2605



Peak Flow Hydrologic Analysis

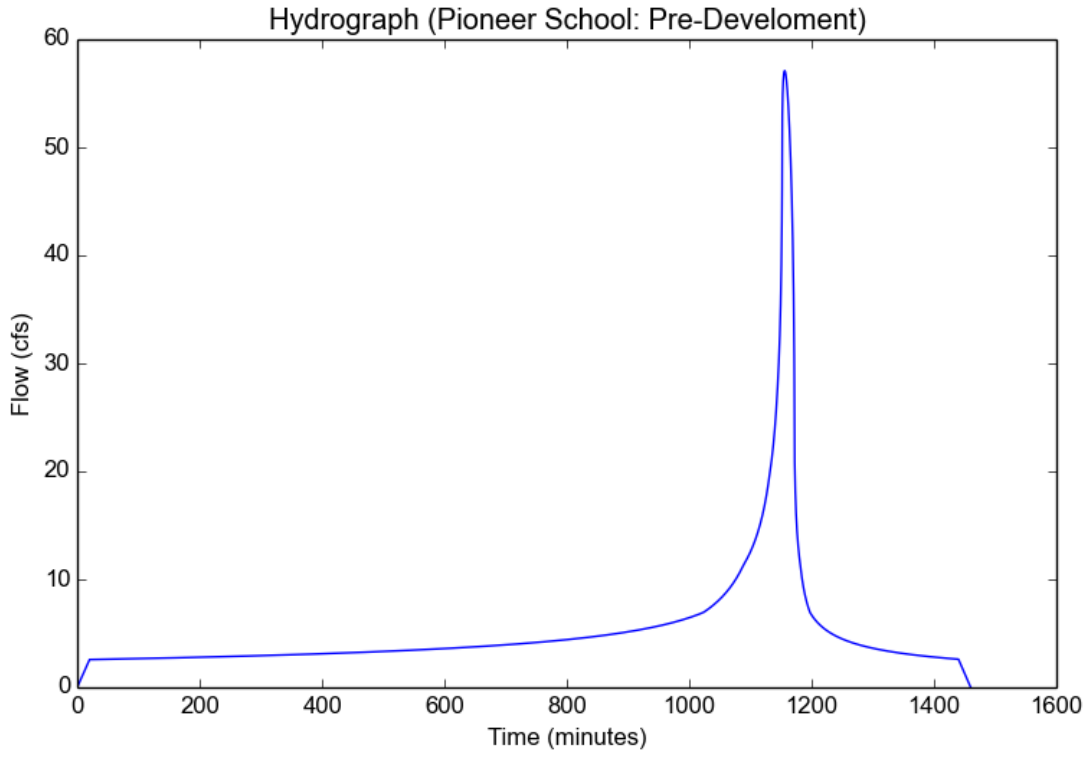
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 25.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.1899
Peak Intensity (in/hr)	1.9249
Undeveloped Runoff Coefficient (Cu)	0.7241
Developed Runoff Coefficient (Cd)	0.8155
Time of Concentration (min)	20.0
Clear Peak Flow Rate (cfs)	57.0966
Burned Peak Flow Rate (cfs)	57.0966
24-Hr Clear Runoff Volume (ac-ft)	10.6514
24-Hr Clear Runoff Volume (cu-ft)	463973.7023



Peak Flow Hydrologic Analysis

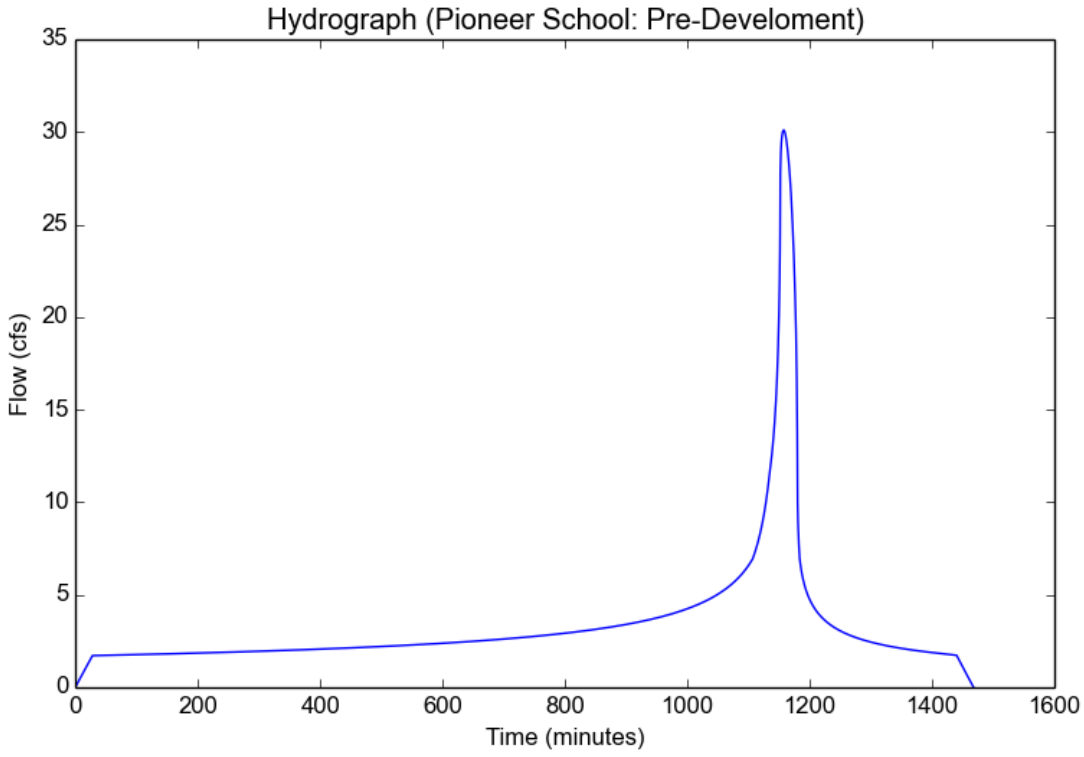
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 5.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	5-yr
Fire Factor	0
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	4.1172
Peak Intensity (in/hr)	1.0931
Undeveloped Runoff Coefficient (Cu)	0.6024
Developed Runoff Coefficient (Cd)	0.7571
Time of Concentration (min)	28.0
Clear Peak Flow Rate (cfs)	30.1006
Burned Peak Flow Rate (cfs)	30.1006
24-Hr Clear Runoff Volume (ac-ft)	6.8173
24-Hr Clear Runoff Volume (cu-ft)	296963.589



Peak Flow Hydrologic Analysis

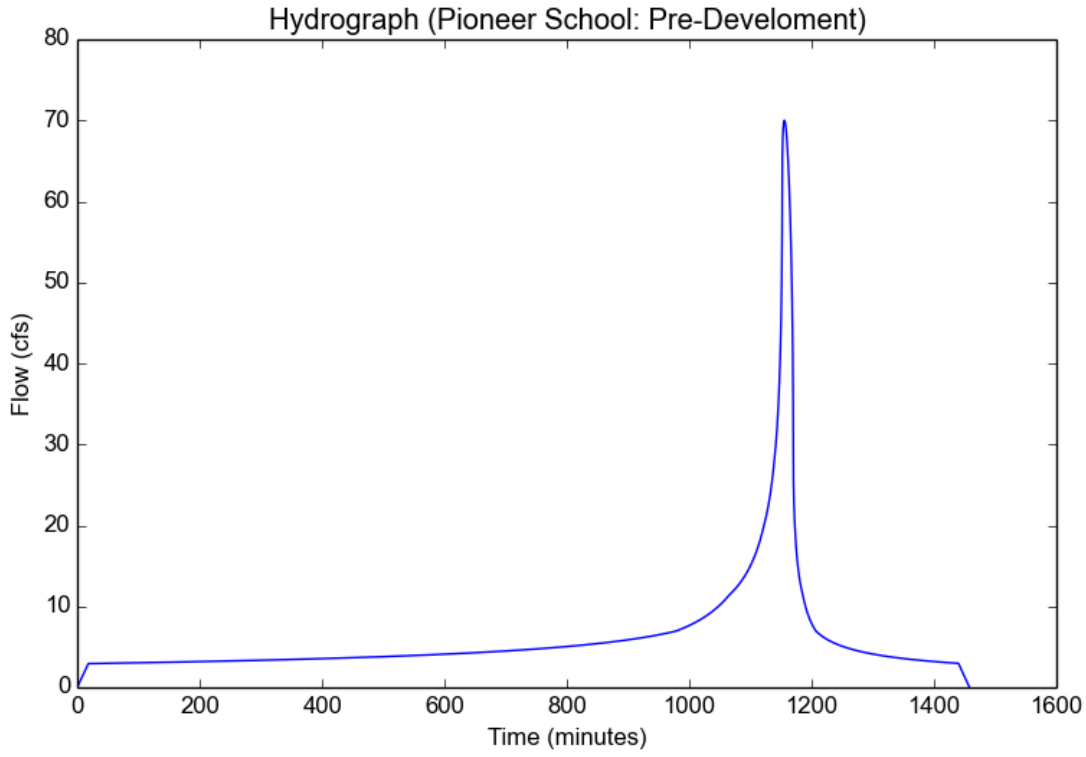
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 50.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
50-yr Rainfall Depth (in)	7.05
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	7.05
Peak Intensity (in/hr)	2.3037
Undeveloped Runoff Coefficient (Cu)	0.7656
Developed Runoff Coefficient (Cd)	0.8355
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	70.0037
Burned Peak Flow Rate (cfs)	70.0037
24-Hr Clear Runoff Volume (ac-ft)	12.3326
24-Hr Clear Runoff Volume (cu-ft)	537206.5457



Peak Flow Hydrologic Analysis

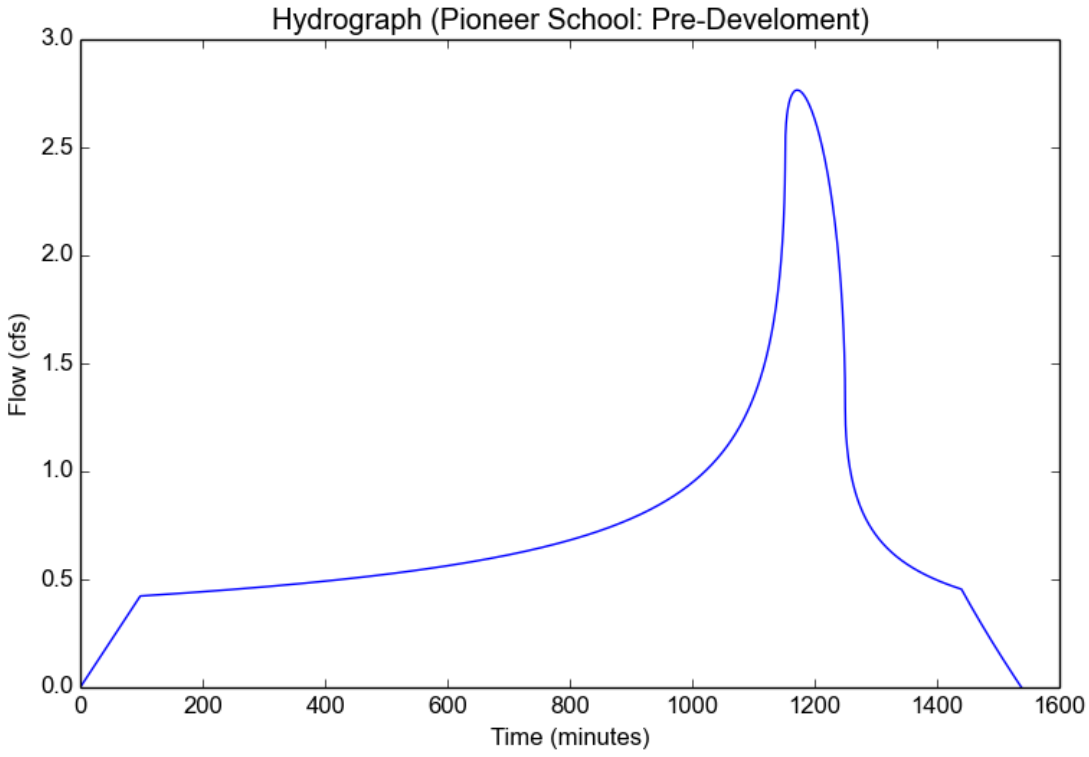
File location: R:/DJP/Projects/18023-Lewis School Parcels/Pioneer School/Hydrology/Pioneer School - Pre-development 85th.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Pioneer School
Subarea ID	Pre-Develoment
Area (ac)	36.37
Flow Path Length (ft)	2770.0
Flow Path Slope (vft/hft)	0.0129
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.52
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.1473
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.516
Time of Concentration (min)	98.0
Clear Peak Flow Rate (cfs)	2.7653
Burned Peak Flow Rate (cfs)	2.7653
24-Hr Clear Runoff Volume (ac-ft)	1.5512
24-Hr Clear Runoff Volume (cu-ft)	67569.5733



Pre-development					
Sub-Area	Area (Ac.)	% Impervious	Area x %Imp.	L(ft.)	% Area
A-1	2.9	0.92	2.67	512	0.08
A-2	2.9	0.45	1.31		0.08
A-3	9.1	0.53	4.82	728	0.25
A-4	0.77	0.87	0.67		0.02
A-5	20.7	0.45	9.32	1530	0.57
Total	36.37	0.52	18.78	2770	

Frequency	Qpeak total (cfs)	Run-off Volume (Ac-ft)	Tc (min.)		
50 yr	70	12.33	18		
25 yr	57.1	10.65	20		
10yr	41.16	8.48	24		
5yr	30.1	6.81	28		
2yr	17.63	4.39	30		
85th	2.77	1.55	98		

PUENTE AVENUE

N Butterfield Rd

N Myrtlewood

E Eckerman Ave

E Danes Dr

E Pioneer Dr

LARK ELLEN AVENUE

AZUSA AVENUE

EX. 54" RCP

EX. 66" RCP

EL ~472.9

EL ~479.4

EL ~474.0

EL 467.5

A-1
2.9 Ac.
92% imp.

L=512'

A-2
2.9 Ac.
45% imp.

EX. OUTLET INTO SWALE

EX. PIPE

EX. PICK-UP POINT/CB FOOD 4 LESS

A-5
20.7 Ac.
45% imp.

SWALE

EARTHEN

L=728'

A-3
9.1 Ac.
53% imp.

EXIST.

EX. CB

L=1530'

ROWLAND AVENUE

A-4 0.77 Ac. 87% imp.

EL 443.7

EL 463.4

EX. PARKWAY DRAIN

Rowland

39

LEGEND

EXISTING PIPE

EX. SWALE

FLOW LINE

0 50 100 200

SCALE: 1" = 100'

DJP ENGINEERING
344 SOUTH CITRUS AVENUE
COVINA, CA 91723
TEL 626-966-8200

APPLICANT:

LEWIS MANAGEMENT CORPORATION
1156 N. MOUNTAIN AVENUE
UPLAND, CALIFORNIA 91785
ATTN: ADAM COLLIER
(909) 946-7596

HYDROLOGY MAP
PRE-DEVELOPMENT
PIONEER SCHOOL

Post-development					
Sub-Area	Area (Ac.)	% Impervious	Area x %Imp.	L(ft.)	% Area
A-1	2.9	0.92	2.67	512	0.08
A-2	2.9	0.45	1.31		0.08
A-3	9.1	0.80	7.28	980	0.25
A-4	0.77	0.87	0.67		0.02
A-5	20.7	0.45	9.32	1525	0.57
Total	36.37	0.58	21.24	3017	

Frequency	Qpeak total (cfs)	Run-off Volume (Ac-ft)	Tc (min.)		
50 yr	66.86	13.17	20		
25 yr	55.04	11.41	22		
10yr	40.14	9.12	26		
5yr	29.72	7.36	30		
2yr	18.3	4.77	30		
85th	3.01	1.7	99		

PUENTE AVENUE

N Myrtlewood

N Eileen St

E Eckerman Ave

E Danes Dr

E Pioneer Dr

LARK ELLEN AVENUE

AZUSA AVENUE

ROWLAND AVENUE

EL ~472.9

EL ~479.4

EL ~474.0

EL 467.5

EL 443.7

EL 463.4

A-1
2.9 Ac.
92% imp.
L=512'

A-2
2.9 Ac.
45% imp.

A-5
20.7 Ac.
45% imp.

A-3
9.1 Ac.
80% imp.
L=770'

A-4
0.77 Ac.
87% imp.
L=210'

INTERCEPT EX. PIPE AND REROUTE TO PROPOSED INFILTRATION

EX. PIPE

PROP.CB

EX. CB

L=1525'

EX. 54" RCP

EX. 66" RCP

PROPOSED OUTLET TO ROWLAND VIA PARKWAY DRAINS

0.5%

0.9%

R

Rowland A

LEGEND

- EXISTING PIPE
- PROPOSED PIPE
- FLOW LINE
- PROPOSED DRAINAGE PATH 0.5%
- PROPOSED INFILTRATION

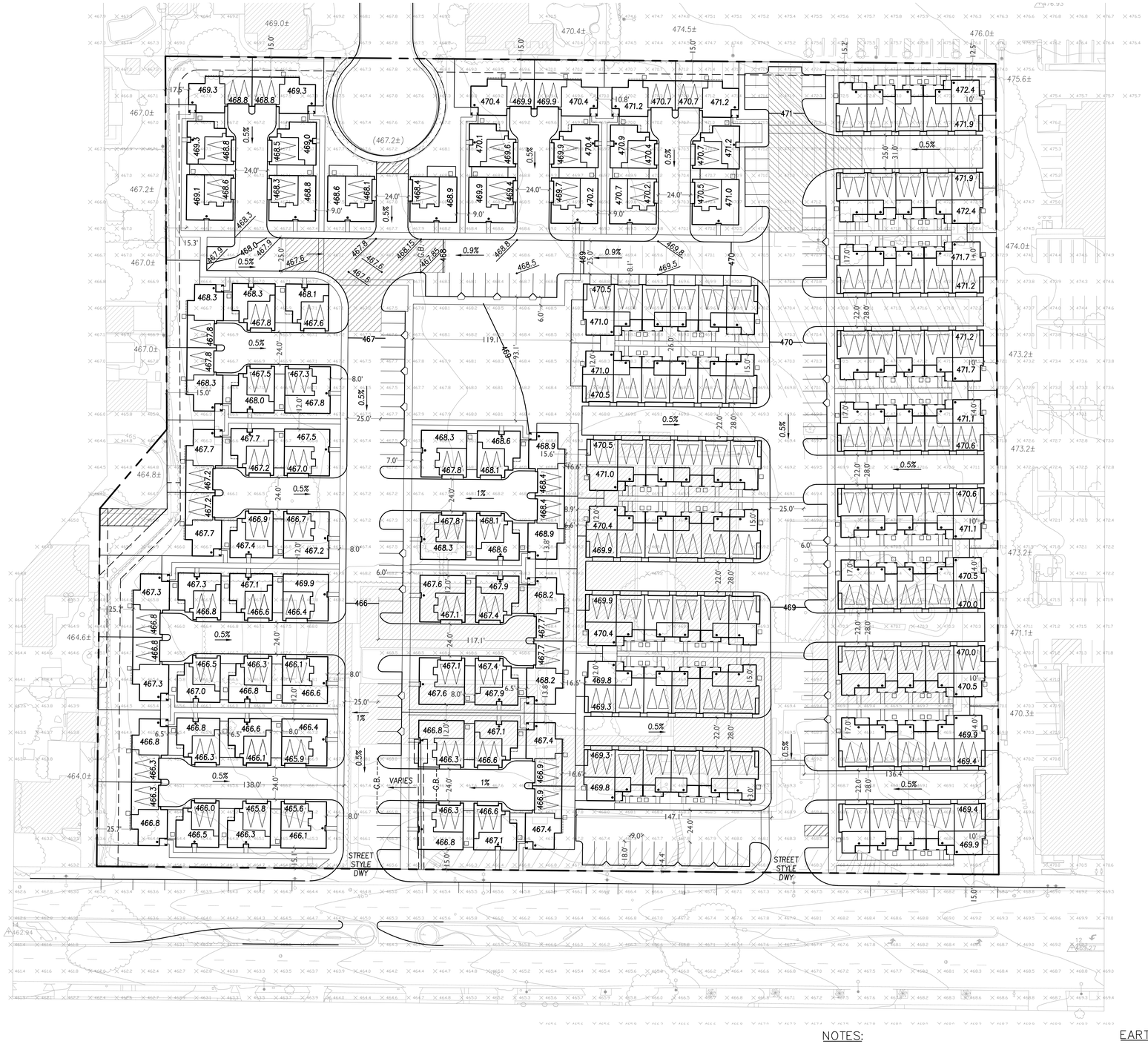
0 50 100 200

SCALE: 1" = 100'

DJP ENGINEERING
344 SOUTH CITRUS AVENUE
COVINA, CA 91723
TEL 626-966-8200

APPLICANT:
LEWIS MANAGEMENT CORPORATION
1156 N. MOUNTAIN AVENUE
UPLAND, CALIFORNIA 91785
ATTN: ADAM COLLIER
(909) 946-7596

HYDROLOGY MAP
POST-DEVELOPMENT
PIONEER SCHOOL



Original Scale : 1"= 40'

PRELIMINARY GRADING PLAN

PIONEER SCHOOL SITE

West Covina, California

0 20 40 80

SCALE: 1" = 40'-0"

NOTES:

1. HOUSE/UNIT ELEVATIONS ARE PAD GRADE
2. STREET CONTOUR ARE FINISH PAVEMENT

EARTHWORK

	CUT (C.Y.)	FILL (C.Y.)
RAW EXCAVATIONS	8700	6450 *
OVER-EXCAVATION & RE-COMPACTION (3' SITE)	43,500	43,500
SUBSIDENCE (0.2' SITE)	–	2,900
LOSS (10%)	–	4,350
TOTAL	52,200	57,200
IMPORT		5,000 C.Y.

* ASSUMES 8" THICKNESS ROADWAY/PARKING BASE AND PAVEMENT.

05. 27. 2020

DJP ENGINEERING
344 SOUTH CITRUS AVENUE
COVINA, CA 91723
TEL 626-966-8200

APPLICANT:

LEWIS MANAGEMENT CORPORATION
1156 N. MOUNTAIN AVENUE
UPLAND, CALIFORNIA 91785
ATTN: ADAM COLLIER
(909) 946-7596

Lewis Group Of Companies

Appendix G

Noise Calculations

Summary

File Name on Meter	831_Data.534.s
File Name on PC	831_0001742-20200727 113747-831_Data.534.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-27 11:37:47
Stop	2020-07-28 11:47:51
Duration	24:10:04.102
Run Time	24:10:04.102
Pause	00:00:00.0
Pre-Calibration	2020-07-27 11:33:58
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	142.2 dB

	A	**C**	**Z**
Under Range Peak	**74.6**	71.6	76.6 dB
Under Range Limit	**26.0**	26.2	31.3 dB
Noise Floor	16.8	17.0	22.1 dB

Results

L_{Aeq}	67.0	
LAE	116.4	
EA	48.520	mPa^2h
$L_{Apeak\ (max)}$	2020-07-27 11:38:52	124.0 dB
L_{ASmax}	2020-07-28 06:10:00	95.1 dB
L_{ASmin}	2020-07-28 00:56:29	40.5 dB
SEA	135.7 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	1930	35266.5 s
LAS > 90.0 dB (Exceedance Counts / Duration)	7	12.0 s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	69.6	68.6	60.9	70.3	68.8	67.6

L_{Ceq}	72.6 dB	
L_{Aeq}	67.0 dB	
L_{Ceq} - L_{Aeq}	5.6 dB	
L_{AIeq}	71.0 dB	
L_{Aeq}	67.0 dB	
L_{AIeq} - L_{Aeq}	4.0 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	67.0		72.6		80.1	
$L_{S(max)}$	95.1	2020/07/28 6:10:00	106.5	2020/07/27 11:42:26	120.8	2020/07/27 11:42:26
$L_{F(max)}$	100.5	2020/07/27 11:42:30	114.2	2020/07/27 11:42:26	128.0	2020/07/27 11:42:26
$L_{I(max)}$	104.8	2020/07/27 11:42:30	117.8	2020/07/27 11:42:26	131.0	2020/07/27 11:42:26
$L_{S(min)}$	40.5	2020/07/28 0:56:29	57.7	2020/07/28 1:55:46	60.1	2020/07/28 2:13:03
$L_{F(min)}$	39.6	2020/07/28 0:56:29	55.3	2020/07/28 2:52:02	57.4	2020/07/28 2:52:02
$L_{I(min)}$	40.4	2020/07/28 1:03:34	58.0	2020/07/28 1:55:17	60.6	2020/07/28 1:26:38
$L_{Peak(max)}$	124.0	2020/07/27 11:38:52	127.0	2020/07/27 11:42:30	133.8	2020/07/27 11:42:26

Overload Count	0
Overload Duration	0.0 s

Statistics

LAI1.70	77.4 dB
LAI8.30	71.5 dB
LAI10.00	70.5 dB
LAI25.00	63.6 dB
LAI50.00	55.6 dB
LAI75.00	50.2 dB

Summary

File Name on Meter	LxT_Data.027.s
File Name on PC	LxT_0004615-20200727 122034-LxT_Data.027.ldbin
Serial Number	0004615
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-27 12:20:34
Stop	2020-07-28 12:36:01
Duration	24:15:27.102
Run Time	24:15:27.102
Pause	00:00:00.0
Pre-Calibration	2020-07-27 12:18:49
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	142.0 dB

	A	**C**	**Z**	
Under Range Peak	**98.2**	95.2	100.2	dB
Under Range Limit	**36.1**	34.1	42.1	dB
Noise Floor	23.4	23.9	31.3	dB

Results

LA_{eq}	55.2		
LAE	104.6		
EA	3.214	mPa^2h	
EA8	1.060	mPa^2h	
EA40	5.300	mPa^2h	
$LA_{peak\ (max)}$	2020-07-27 12:20:39	115.2	dB
LAS_{max}	2020-07-27 12:20:39	90.8	dB
LAS_{min}	2020-07-28 02:43:13	40.6	dB
SEA	-99.94	dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	3.2	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LA_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LA_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LA_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{eq}	67.5	dB	
LA_{eq}	55.2	dB	
LC_{eq} - LA_{eq}	12.3	dB	
LAI_{eq}	59.2	dB	
LA_{eq}	55.2	dB	
LAI_{eq} - LA_{eq}	4.0	dB	

	A		**C**	
	dB	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	55.2		67.5	
$L_{S(max)}$	90.8	2020/07/27 12:20:39		
$L_{S(min)}$	40.6	2020/07/28 2:43:13		
$L_{Peak(max)}$	115.2	2020/07/27 12:20:39		

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	0.00	0.01	%
Projected Dose	0.00	0.00	%
TWA (Projected)	-0.4	15.9	dB
TWA (t)	7.6	23.9	dB
Lep (t)	60.0	60.0	dB

Statistics

LAI1.70	62.2	dB
LAI8.30	57.7	dB
LAI25.00	54.1	dB
LAI50.00	50.9	dB
LAI75.00	49.0	dB
LAI90.00	47.5	dB

Summary

File Name on Meter	831_Data.536.s
File Name on PC	831_0001742-20200728 125419-831_Data.536.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-28 12:54:19
Stop	2020-07-28 13:17:00
Duration	00:22:40.6
Run Time	00:22:40.6
Pause	00:00:00.0
Pre-Calibration	2020-07-28 12:51:55
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	141.9 dB

	A	C	Z
Under Range Peak	**74.4**	71.4	76.4 dB
Under Range Limit	**25.9**	26.1	31.2 dB
Noise Floor	16.8	17.0	22.0 dB

Results

LAeq	50.5	
LAE	81.8	
EA	16.904	µPa²h
LApeak (max)	2020-07-28 13:16:57	85.4 dB
LASmax	2020-07-28 13:08:47	61.3 dB
LASmin	2020-07-28 13:16:43	46.7 dB
SEA	-99.94 dB	

LAS > 60.0 dB (Exceedance Counts / Duration)	3	7.3 s
LAS > 90.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	50.5	50.5	-99.94	50.5	50.5	-99.94

LCeq	65.4 dB
LAeq	50.5 dB
LCeq - LAeq	14.9 dB
LAleq	52.3 dB
LAeq	50.5 dB
LAleq - LAeq	1.8 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	50.5		65.4		73.3	
LS(max)	61.3	2020/07/28 13:08:47	73.6	2020/07/28 12:54:31	86.2	2020/07/28 13:16:25
LF(max)	65.1	2020/07/28 13:16:57	76.6	2020/07/28 12:54:31	89.9	2020/07/28 13:16:44
LI(max)	71.2	2020/07/28 12:54:19	77.7	2020/07/28 12:54:31	93.0	2020/07/28 13:16:44
LS(min)	46.7	2020/07/28 13:16:43	61.3	2020/07/28 12:55:39	65.0	2020/07/28 13:03:40
LF(min)	46.1	2020/07/28 13:16:26	59.7	2020/07/28 13:03:29	62.8	2020/07/28 12:55:19
LI(min)	46.4	2020/07/28 13:16:26	62.4	2020/07/28 13:02:49	66.1	2020/07/28 12:55:22
LPeak(max)	85.4	2020/07/28 13:16:57	84.2	2020/07/28 13:08:47	95.2	2020/07/28 13:16:44

Overload Count	0
Overload Duration	0.0 s

Statistics

LAI1.70	56.9 dB
LAI8.30	52.6 dB
LAI10.00	52.2 dB
LAI25.00	50.4 dB
LAI50.00	49.3 dB
LAI75.00	48.6 dB

Summary

File Name on Meter	831_Data.537.s
File Name on PC	831_0001742-20200728 132117-831_Data.537.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-28 13:21:17
Stop	2020-07-28 13:46:22
Duration	00:25:05.7
Run Time	00:25:05.7
Pause	00:00:00.0
Pre-Calibration	2020-07-28 12:49:01
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	141.9 dB

	A	C	Z	
Under Range Peak	**74.4**	71.4	76.4	dB
Under Range Limit	**25.9**	26.1	31.2	dB
Noise Floor	16.8	17.0	22.0	dB

Results

L_{Aeq}	45.7		
LAE	77.5		
EA	6.209	µPa²h	
$L_{Apeak\ (max)}$	2020-07-28 13:46:21	77.5	dB
L_{ASmax}	2020-07-28 13:29:31	53.2	dB
L_{ASmin}	2020-07-28 13:22:35	42.4	dB
SEA	-99.94	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	0	0.0	s
LAS > 90.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	45.7	45.7	-99.94	45.7	45.7	-99.94

L_{Ceq}	60.6	dB
L_{Aeq}	45.7	dB
L_{Ceq} - L_{Aeq}	14.9	dB
L_{AIeq}	47.6	dB
L_{Aeq}	45.7	dB
L_{AIeq} - L_{Aeq}	1.9	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	45.7		60.6		70.1	
$L_{S(max)}$	53.2	2020/07/28 13:29:31	67.2	2020/07/28 13:23:27	82.5	2020/07/28 13:40:47
$L_{F(max)}$	56.8	2020/07/28 13:29:29	70.1	2020/07/28 13:23:27	88.0	2020/07/28 13:40:46
$L_{I(max)}$	60.3	2020/07/28 13:46:21	71.8	2020/07/28 13:23:27	91.2	2020/07/28 13:40:46
$L_{S(min)}$	42.4	2020/07/28 13:22:35	57.3	2020/07/28 13:25:32	58.9	2020/07/28 13:21:17
$L_{F(min)}$	41.6	2020/07/28 13:29:54	55.2	2020/07/28 13:25:23	58.5	2020/07/28 13:25:31
$L_{I(min)}$	42.3	2020/07/28 13:22:30	58.2	2020/07/28 13:31:45	62.4	2020/07/28 13:32:22
$L_{Peak(max)}$	77.5	2020/07/28 13:46:21	78.1	2020/07/28 13:46:21	93.5	2020/07/28 13:40:46

Overload Count	0	
Overload Duration	0.0	s

Statistics

LAI1.70	50.3	dB
LAI8.30	48.2	dB
LAI10.00	47.8	dB
LAI25.00	46.1	dB
LAI50.00	44.8	dB
LAI75.00	44.0	dB

Construction Generated Noise

Building Type	Domestic Housing		**Distance (ft)**
Construction Noise at 50 Feet (dBA Leq)			50
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	83	83	
Excavation	88	75	
Foundation Construction	81	81	
Building Construction	81	65	
Finishing and Site Cleanup	88	72	

North - Residential			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			310
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

West - Residential			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			305
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

South - Residential			
Maximum Construction Noise (dBA Leq)			110
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	76	76	
Excavation (Site Preparation)	81	68	
Foundation Construction	74	74	
Building Construction	74	58	
Paving	81	65	
Average Construction Noise (dBA Leq)			400
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	65	65	
Excavation (Site Preparation)	70	57	
Foundation Construction	63	63	
Building Construction	63	47	
Paving	70	54	

East - Commercial			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			305
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.

Unmitigated Construction Generated Vibration

North - Residential		Closest Distance (feet):	5
	Approximate RMS a	Approximate RMS	
	66	73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	2.348	
Caisson Drill	0.089	0.995	
Large bulldozer	0.089	0.995	
Small bulldozer	0.003	0.034	
Jackhammer	0.035	0.391	
Loaded trucks	0.076	0.850	
	Criteria	0.300	1700
West - Residential		Closest Distance (feet):	5
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	2.348	
Large bulldozer	0.089	0.995	
Small bulldozer	0.003	0.034	
Jackhammer	0.035	0.391	
Loaded trucks	0.076	0.850	
	Criteria	0.300	
South - Residential		Closest Distance (feet):	125
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.019	
Large bulldozer	0.089	0.008	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.003	
Loaded trucks	0.076	0.007	
	Criteria	0.300	
East - Commercial		Closest Distance (feet):	25
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Mitigated Construction Generated Vibration

North - Residential		Closest Distance (feet):	25
	Approximate RMS a 66	Approximate RMS 73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Caisson Drill	0.089	0.089	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	1700
West - Residential		Closest Distance (feet):	25
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	
South - Residential		Closest Distance (feet):	125
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.019	
Large bulldozer	0.089	0.008	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.003	
Loaded trucks	0.076	0.007	
	Criteria	0.300	
East - Commercial		Closest Distance (feet):	25
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Barrier Performance Module

This module provides to the user a measure on the barrier's effectiveness on noise reduction. A list of the input/output variables and their definitions, as well as illustrations of different scenarios are provided.

Calculator

View Day/Night Noise Level Calculator (/programs/environmental-review/dnl-calculator/)

View Descriptions of the Input/Output variables.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the Input and Output variables with the mouse.

WARNING: If there is direct line-of-sight between the Source and the Observer, the module will report erroneous attenuation. "Direct line-of-sight" means if the 5' tall Observer can see the noise Source (cars, trucks, trains, etc.) over the Barrier (wall, hill/excavation, building, etc.), the current version of Barrier Performance Module will not accurately calculate the attenuation provided. In this instance, there is unlikely to be any appreciable attenuation.

Road/Rail Site DNL:

Note: Barrier height must block the line of sight

Input Data

H	10	**R^1**	10
S	6	**D^1**	10
O	5	**α**	180

Calculate Output

Output Data

h	4	**R**	10
D	10	**FS**	13.1752

New Site DNL:

-13.1752

Refresh

Note: If you have separate Road and Rail DNL values, please enter the values below to calculate the new site DNL:

Road DNL:

Rail DNL:

Calculate

Combined New Site DNL:

Input/Output Variables

Input Variables

The following variables and definitions from the barrier being assessed are the input required for the web-based barrier performance module:

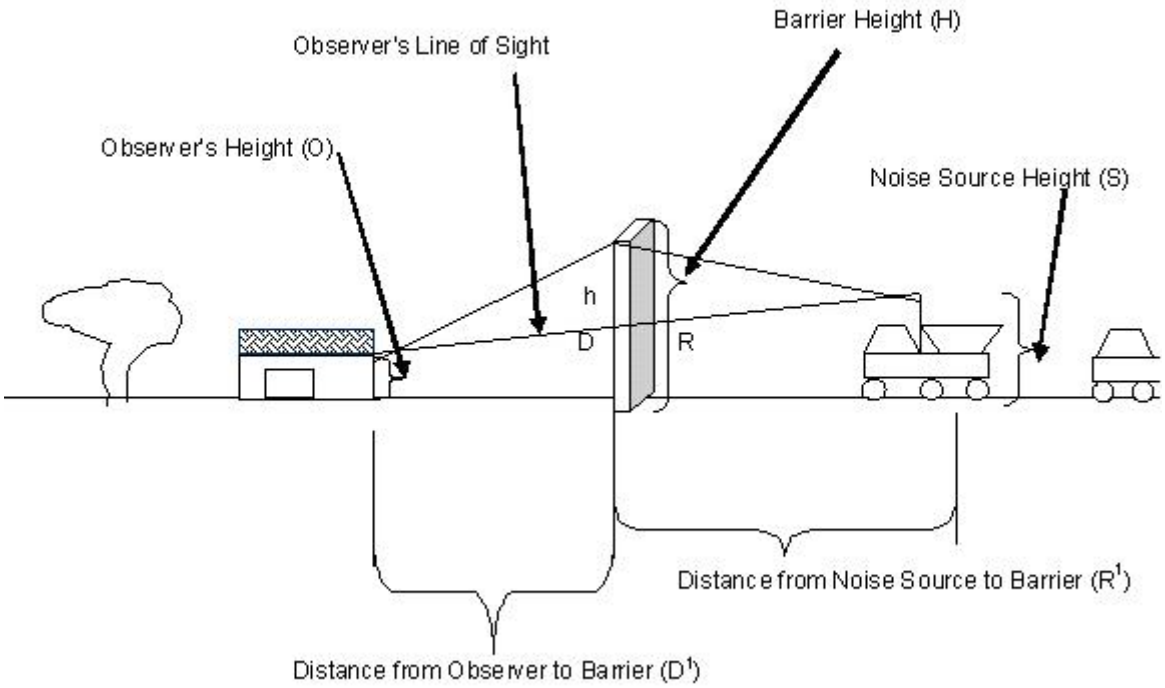
- H = Barrier Height
- S = Noise Source Height
- O = Observer Height (known as the receiver)
- R^1 = Distance from Noise Source to Barrier
- D^1 = Distance from the Observer to the Barrier
- α = Line of sight angle between the Observer and the Noise Source, subtended by the barrier at observer's location

Output Variables

Definitions of the output variables from the mitigation module of the Day/Night Noise Level Assessment Tools as part of the Assessment Tools for Environmental Compliance:

- h = The shortest distance from the barrier top to the line of sight from the Noise source to the Observer.
- R = Slant distance along the line of sight from the Barrier to the Noise Source
- D = Slant distance along the line of sight from the Barrier to the Observer

The “actual barrier performance for barriers of finite length” is noted on the worksheets(in the Guidebook) as **FS**.



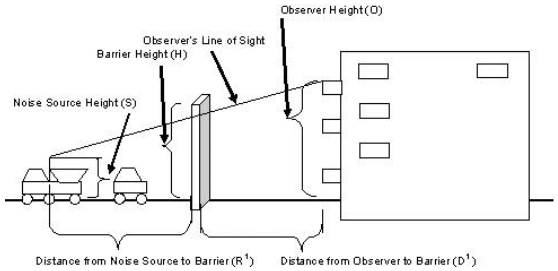
Barrier Implementation Scenarios

Locate the cursor on the following thumbnails to enlarge the respective scenario as implementation examples of the barrier performance module.

Scenario #1:

Noise receiver at a higher elevation than the noise source and a man-made noise barrier in between the receiver and the source.

Scenario #1:

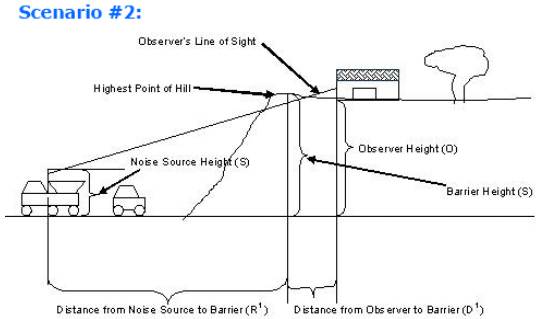


Noise receiver at a higher elevation than the noise source and a man-made noise barrier in between the receiver and the source.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-1.gif)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #2:



Noise receiver at a higher elevation than the noise source and a natural barrier (hill) between the receiver and the source.

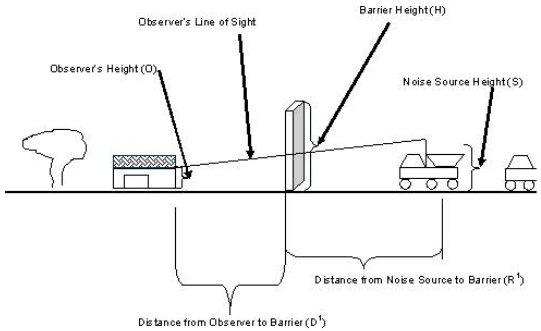
(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-2.gif)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Noise receiver at a higher elevation than the noise source and a natural barrier (hill) between the receiver and the source.

Scenario #3:

Noise receiver at almost the same elevation of the noise source

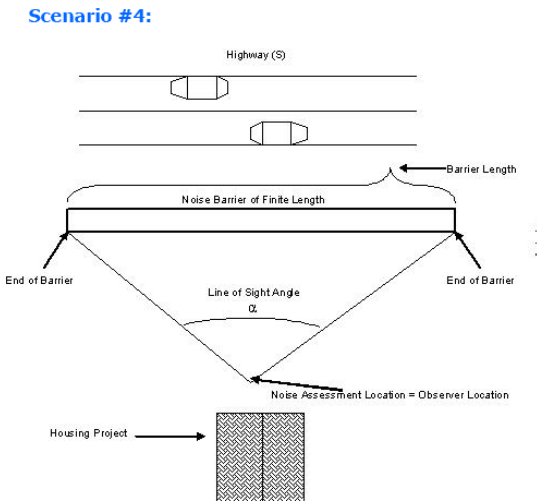


Noise receiver at almost the same elevation of the noise source and a man-made noise barrier between the receiver and the source.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-3.gif)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #4:



A noise barrier of finite length between a noise source and a receiver. This top view illustrates the angle a, subtended by the barrier at the observer's location.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-4.gif)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-

A noise barrier of finite length between a noise source and a receiver. This top view illustrates the angle α, subtended by the barrier at the observer's location.

implementation-scenarios/)

Contents

Walnut Grove Residential Project

Roadway Segment		Speed	24-hour Traffic Volume: Existing	Future Without Project	Future With Project	Distance to CNEL from Roadway Centerline: Existing 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Future No Project 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Future With Project 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Change From Existing	Change due to Project	Noise Level (CNEL or Ldn) at Distance from Roadway Centerline: Existing 50 feet			Future No Proj 50 feet			Future Plus Proj 50 feet			Change From Existing	Change due to Project
Rowland, West of Project		40.0	11,900	12,100	12,549	71.1	275	127	59	71.2	278	129	60	71.3	284	132	61	0.2	0.2	71.1	71.1	71.1	71.2	71.2	71.2	71.3	71.3	71.3	+0.2	+0.2
Rowland, East of Project		40.0	11,900	12,100	12,774	71.1	275	127	59	71.2	278	129	60	71.4	288	134	62	0.3	0.2	71.1	71.1	71.1	71.2	71.2	71.2	71.4	71.4	71.4	+0.3	+0.2
Rowland, East of Azusa		40.0	14,400	14,700	14,812	71.9	312	145	67	72.0	316	147	68	72.0	318	147	68	0.1	0.0	71.9	71.9	71.9	72.0	72.0	72.0	72.0	72.0	72.0	+0.1	+0.0
Azusa, North of Rowland		40.0	44,500	45,400	45,512	76.8	662	307	143	76.9	670	311	144	76.9	672	312	145	0.1	0.0	76.8	76.8	76.8	76.9	76.9	76.9	76.9	76.9	76.9	+0.1	+0.0
Azusa, South of Rowland		40.0	41,500	42,300	42,749	76.5	631	293	136	76.6	640	297	138	76.6	644	299	139	0.1	0.0	76.5	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	+0.1	+0.1

Assumptions:

Fleet Mix

92%	Autos
3%	Medium Trucks
5%	Heavy Trucks

Simplified to 2 lanes 6.1 meters= 20.0 feet from centerline

future 6.1 meters= 20.0 feet from centerline

Noise path decay parameter for hard site

Time of Day:

70%	Day
15%	Evening
15%	Night

Calculations using methods of Federal Highway Administration *Highway Traffic Noise Prediction Model*, December, 1978. Baseline California vehicle noise levels from Caltrans, TAN 95-03, 1995

Source of standard assumptions:

24-hour distribution of traffic volumes:
70% day (7-7), 15% evening (7-10), 15% night (10-7)
Analysis of L.A. County 24-hour traffic counts for selected arterial streets conducted by Pat Mann for Inglewood Noise Element, 1974
Truck Mix

ARB standard fleet mix for air quality analysis
Heavy trucks for noise model includes heavy diesel tractor-trailers only
Medium trucks for noise model includes buses and bobtail trucks
Autos includes cars, vans, pickups and light trucks

Appendix H

Focused Traffic Study

FINAL
Focused Traffic Study for Walnut Grove

PREPARED FOR

Lewis Group Of Companies

October 2020

Balancing the Natural and Built Environment

PSOMAS

FOCUSED TRAFFIC STUDY
WALNUT GROVE
WEST COVINA, CA

PREPARED FOR

Lewis
Group Of Companies

PREPARED BY

PSOMAS

PSOMAS PROJECT NO. 3LEW001200

OCTOBER 2020

TABLE OF CONTENTS

LIST OF FIGURES

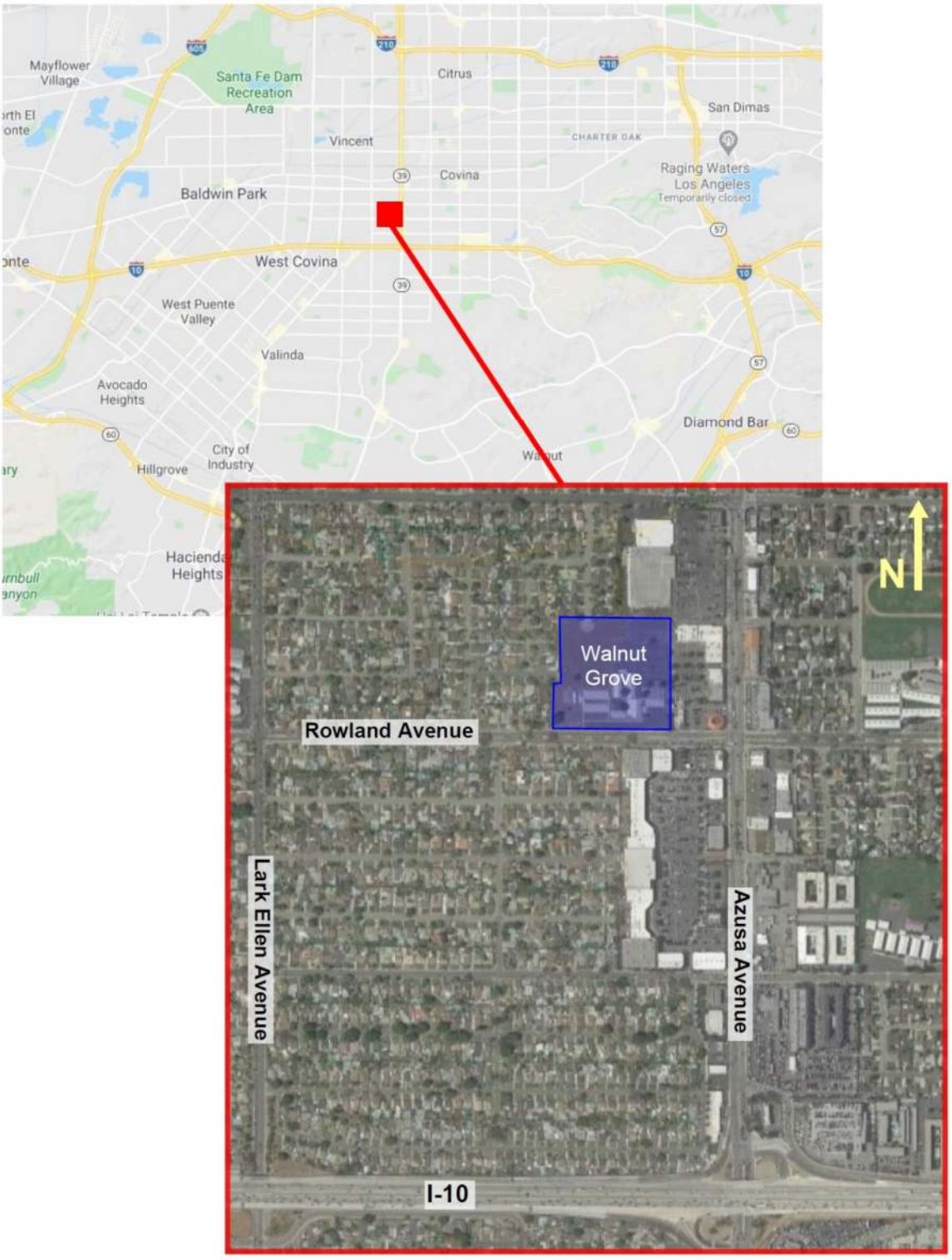
LIST OF TABLES

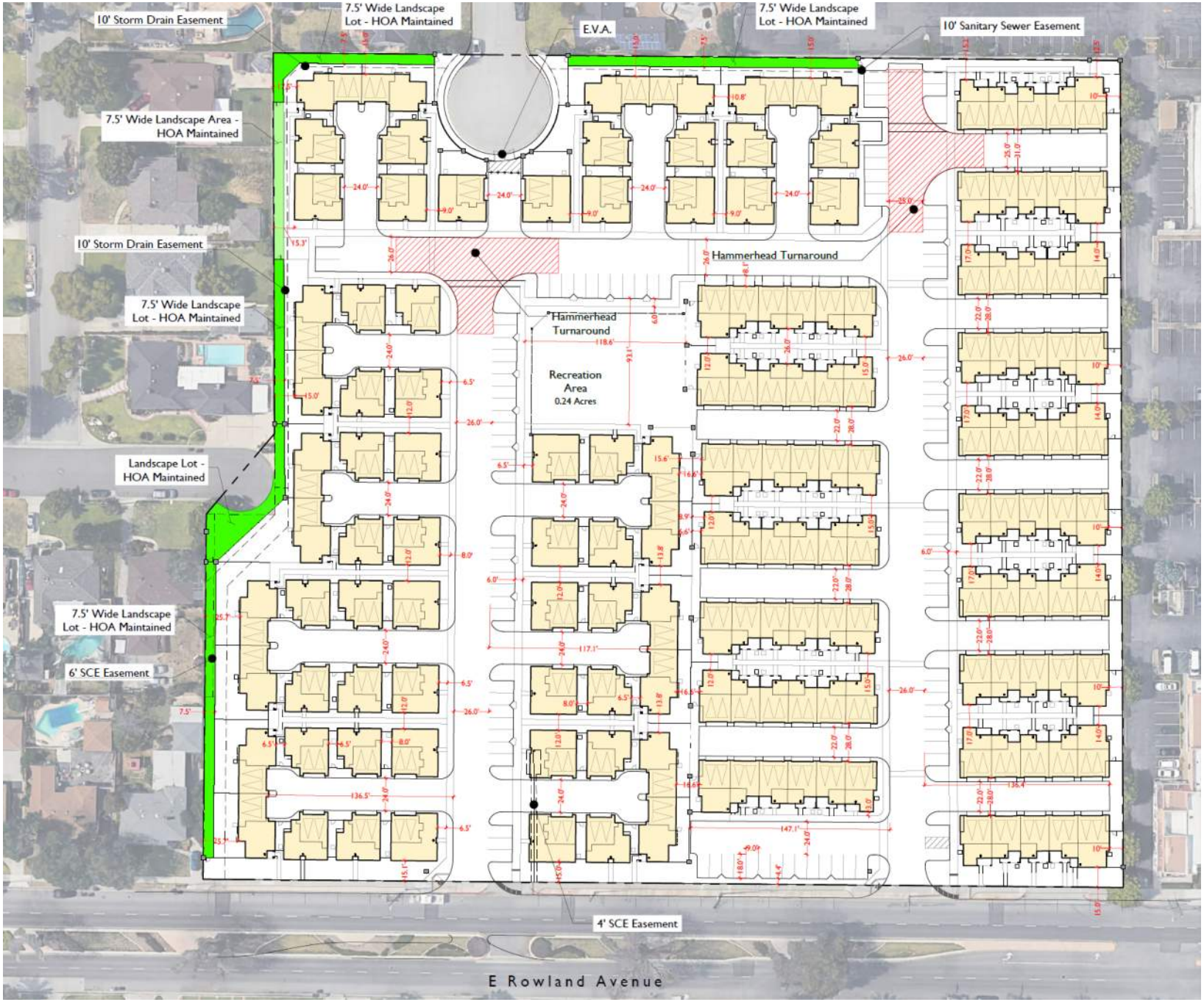
1. INTRODUCTION

The Walnut Grove Specific Plan is a residential project in the City of West Covina as shown in Figure 1. The project is located in a generally residential area, will replace an existing empty school campus, and is expected to include 66 detached units and 92 attached units for a total of 158 new residential townhome units. The site will have two access points onto Rowland Avenue including one full access driveway and one right turn only driveway. The site plan is shown in Figure 2. The project is expected to generate 1,124 daily trips, including 106 trips in the peak hour.

The City of West Covina recently adopted the use of Vehicle Miles Traveled (VMT) analysis methodology for evaluating potential traffic impacts for development projects. The City has also elected to continue to use Level of Service (LOS) analyses for planning purposes. However, due to the COVID-19 pandemic, traffic volumes are far below normal, and therefore, the data collection needed to serve the LOS analysis is infeasible. However, per a scoping agreement, this report will include various site analyses including queuing, turning movements, sight distance, and circulation. The scoping agreement is included in Appendix A.

Figure 1. Site Location





Walnut Grove Focused Traffic Study	*Figure 2.* *Site Plan*	PSOMAS October 2020

2. EXISTING STUDY AREA CONDITIONS

2.1. ROADWAY NETWORK

The two existing major roadways in the immediate project vicinity are discussed below:

Rowland Avenue is a four-lane divided roadway with on-street parking on both sides. In the vicinity of the project (east of Lark Ellen Avenue), the roadway is classified as principle arterial by the City of West Covina[1]. The roadway has a posted speed limit of 40 mph.

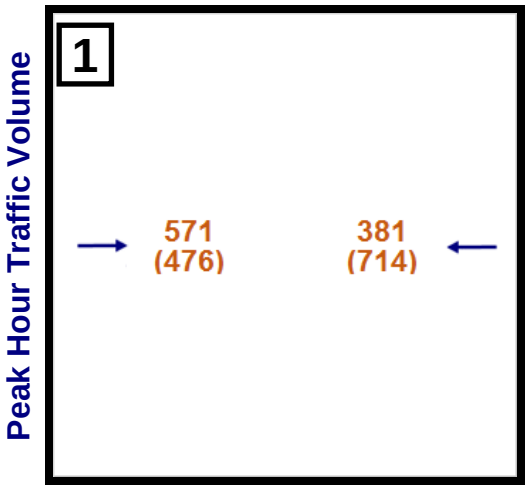
Azusa Avenue is also a four-lane divided roadway in the project vicinity with on-street parking on both sides of the street. The roadway is classified as a principle arterial by the City of West Covina, and has a posted speed limit of 40 mph.

2.2. TRAFFIC VOLUMES

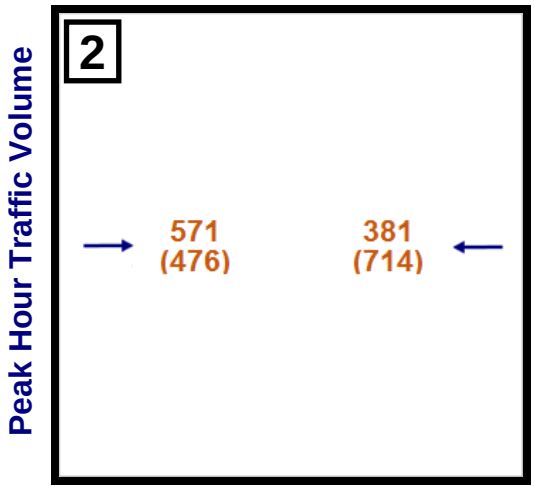
Due to the COVID-19 pandemic, traffic volumes were not collected for this study. Instead, daily traffic volumes collected for the *Engineering and Traffic Survey*[2] prepared for the City in 2017 were obtained for Rowland Avenue along the frontage of the project. The 2017 volume was grown by 1% per year to estimate 2020 volumes, resulting in approximately 12,100 vehicles per day on Rowland Avenue along the project frontage. The 1% per year growth rate is likely conservative, particularly considering the significant decrease in traffic volumes which has occurred with the COVID-19 pandemic and is expected to linger for an extended period moving forward. In addition, most of the land on both sides of Rowland Avenue is developed, and the roadway does not serve as a major regional connection.

In order to provide estimated peak hour volumes for use in driveway analyses later in this report, the general assumptions that 8% of traffic occurs in the AM peak hour and 10% occurs in the PM peak hour were used. It was further assumed that 60% of traffic is eastbound on Rowland Avenue in front of the project in the AM peak hour, while the reverse is true in the PM peak hour. Figure 3 shows the estimated existing (2020) traffic volumes.

ROWLAND AVE/WEST DRIVEWAY



ROWLAND AVE/EAST DRIVEWAY



Walnut Grove Focused Traffic Study	*Figure 3.* *Estimated Existing (2020) Traffic Volumes*	PSOMAS October 2020

3. PROJECT DESCRIPTION

The Walnut Grove Specific Plan is a residential community containing single family detached and attached townhomes on the north side of Rowland Avenue just west of Azusa Avenue in West Covina, California. The project is expected to include 66 detached units and 92 attached units for a total of 158 new residential units as shown in Figure 2 (Section 1). The project is expected to open in December 2021, but to be conservative, the analyses in this report are based on an opening year of 2022.

The project will have two access points onto Rowland Avenue. The west driveway will be a full access driveway, and the east driveway will be a right-in right-out only driveway. The median on Rowland Avenue in front of the west driveway will be reconstructed because the existing median opening is slightly east of the proposed west driveway location. The median reconstruction will also include a left turn cutout to allow left turns directly into the site, and a striping plan will be provided with the development plans. All of the units will be accessible from either driveway. Red curbing will also be required on the north side of Rowland Avenue along much of the project frontage as discussed in Section 5.3.

At the north end of the site, the existing Eileen Street cul-de-sac extends onto the project site. The cul-de-sac will remain as an emergency access point only for the Walnut Grove project – all other site traffic will not have access to Eileen Street. A driveway cutout will be provided in the cul-de-sac for emergency vehicles, along which parking will not be allowed. It is expected that on-street parking will remain available along the remaining areas of the cul-de-sac. The emergency access will have a 6’ tall by 24’ wide double swing gate with a Knox Box and will be accessible for emergency vehicles only. The remainder of the cul-de-sac will be walled off with no pedestrian or vehicle access to the site from Eileen Street.

4. PROJECTED TRAFFIC VOLUMES

4.1. BASELINE GROWTH

As with the estimated 2020 volumes, a 1% per year growth rate was assumed when projecting future traffic volumes without the project. Figure 4 shows the estimated 2022 baseline traffic volumes. The volumes indicate that the four-lane Rowland Avenue has significant excess capacity.

4.2. PROJECT TRAFFIC VOLUMES

4.2.1. Project Trip Generation

The anticipated traffic generation for the project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*[3] for morning and evening weekday peak hour trips. Note that although the detached units are not typical single family units, the single family (detached) land use was used to be conservative. The resulting project trip generation is shown in Table 1. As seen in the table, the project is expected to generate 106 peak hour trips as well as 1,124 daily trips.

4.2.2. Project Trip Distribution

The project trip distribution is shown in Figure 5. The overall distribution was estimated based on estimated trip generators and attractors in West Covina and the surrounding areas. As previously discussed, the only left turn access for the project will be at the west driveway, so much of the traffic traveling to/from the west will use that driveway.

4.2.3. Project Traffic Volumes

Using the project trip generation and trip distribution, the project traffic volumes at the two driveways were calculated and are also shown in Figure 5.

4.3. EXISTING + BASELINE GROWTH + PROJECT TRAFFIC VOLUMES

Future volumes with the project were calculated by adding the baseline volumes and project traffic volumes. Figure 6 shows the projected opening year traffic volumes with the project.

ROWLAND AVE/WEST DRIVEWAY

Peak Hour Traffic Volume

1

582 (486) →

← 389 (728)

ROWLAND AVE/EAST DRIVEWAY

Peak Hour Traffic Volume

2

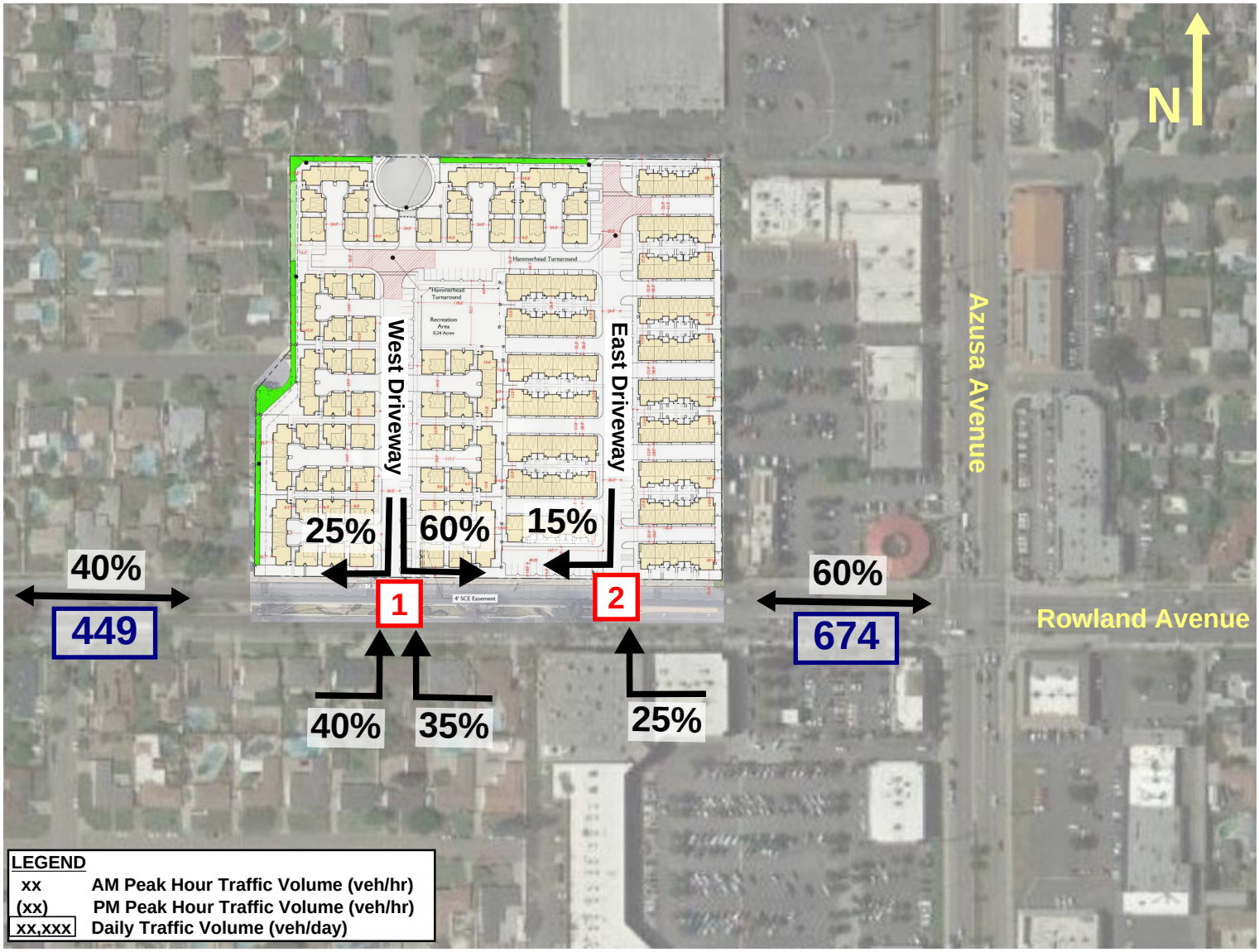
582 (486) →

← 389 (728)

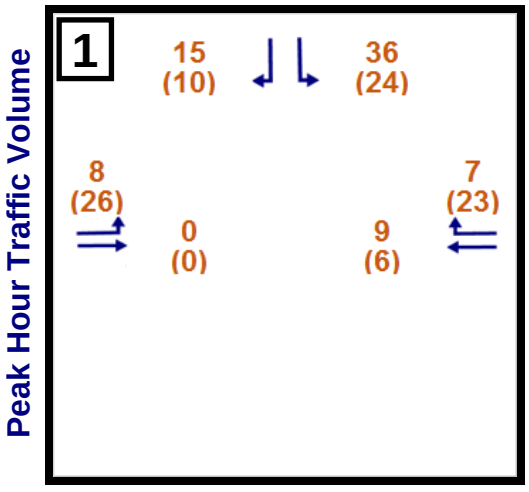
Walnut Grove Focused Traffic Study	*Figure 4.* *Opening Year (2022) Baseline Traffic Volumes*	PSOMAS October 2020

Table 1. Project Trip Generation

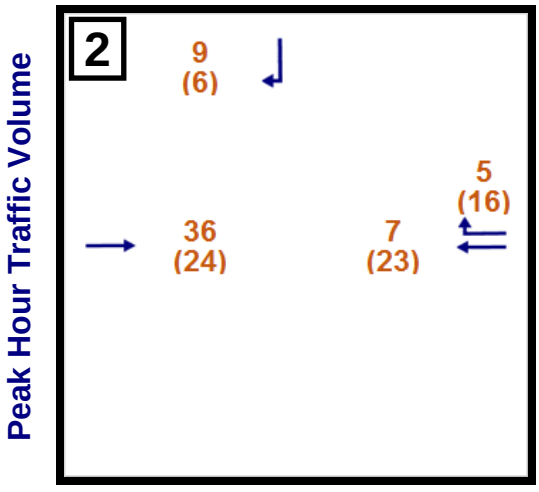
LU 210 - Single Family Residential						
Units			**66**			
Period	**Trips/Unit**	**Trips**	**% In**	**% Out**	**Trips In**	**Trips Out**
AM Peak	0.74	49	25%	75%	12	37
PM Peak	0.99	65	63%	37%	41	24
Daily	9.44	623	50%	50%	312	312
LU 221 - Multifamily Housing (Mid-Rise)						
Units			**92**			
Period	**Trips/Unit**	**Trips**	**% In**	**% Out**	**Trips In**	**Trips Out**
AM Peak	0.36	33	26%	74%	9	25
PM Peak	0.44	40	61%	39%	25	16
Daily	5.44	500	50%	50%	250	250
TOTAL						
Units			**158**			
Period	**Trips**		**Trips In**		**Trips Out**	
AM Peak	82		21		61	
PM Peak	106		66		40	
Daily	1,124		562		562	



ROWLAND AVE/WEST DRIVEWAY

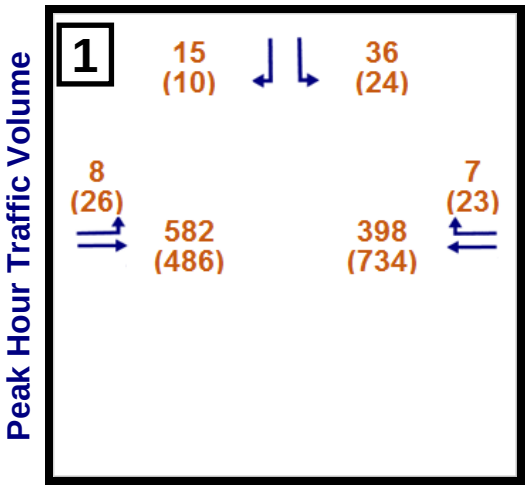


ROWLAND AVE/EAST DRIVEWAY

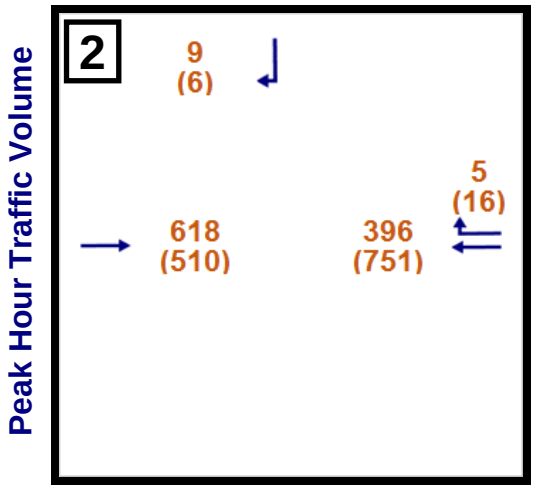


Walnut Grove Focused Traffic Study	*Figure 5.* *Project Trip Distribution and Traffic Volumes*	PSOMAS October 2020

ROWLAND AVE/WEST DRIVEWAY



ROWLAND AVE/EAST DRIVEWAY



Walnut Grove Focused Traffic Study	*Figure 6.* *Opening Year (2022) + Project Traffic Volumes*	PSOMAS October 2020

5. SITE ANALYSIS

5.1. VEHICLE MILES TRAVELED (VMT)

As previously discussed, the City has recently adopted a policy to evaluate potential traffic impacts based on VMT instead of the previous LOS thresholds. However, per the Scoping Agreement, this project is located in a Transit Priority Area (TPA) and is therefore exempt from a full VMT analysis. The bus lines and bus stops in the project vicinity are shown in Figure 7, and the City TPA map is included in Appendix B.

Although there have been some changes to transit service due to the COVID-19 pandemic, it was confirmed that the Foothill Transit bus lines in the project area are still operating as usual[4]. Therefore, the TPA exemption is still valid.

5.2. DRIVEWAY QUEUING

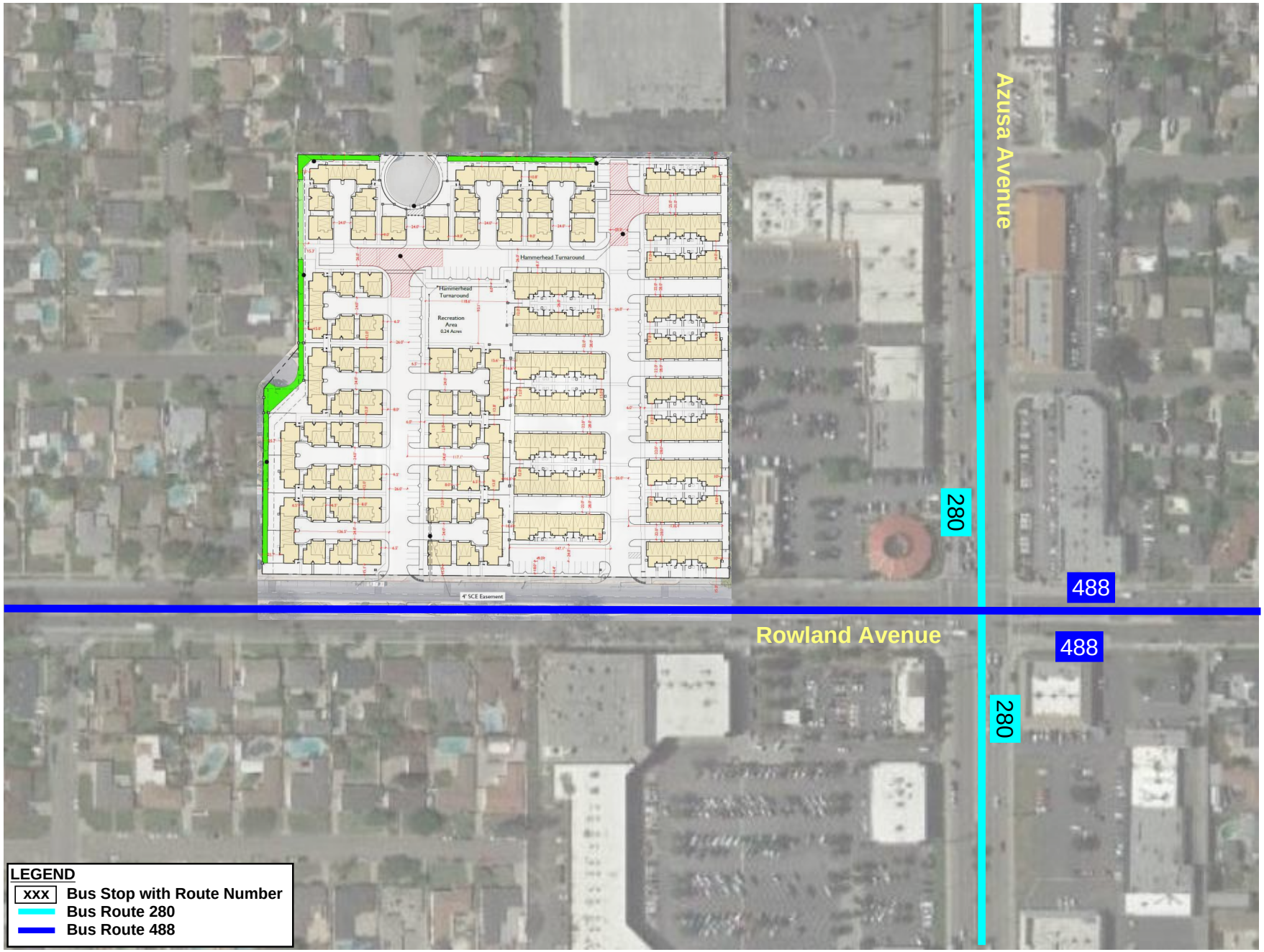
Although LOS analysis is not required, the anticipated queuing at the site driveways was evaluated using *Synchro*, which employs the methodology of the *Highway Capacity Manual*[5]. Because the driveways will only exist with the project, the analysis was only completed for 2022 conditions with the project.

Both driveways will operate with stop control on the driveway, so the only movements which are expected to experience queuing are the southbound turns exiting the site and the eastbound left turns into the site at the west driveway. All of those movements were found to have queues of less than one vehicle in both peak hours, as shown in Table 2. The *Synchro* reports are included in Appendix C.

Table 2. 95th Percentile Queues (feet)

	West Driveway		East Driveway
	EB LT	SB RT/LT	SB RT
AM Peak Hour	0	13	0
PM Peak Hour	3	13	0

*Note: Queue lengths are estimated assuming 25' per vehicle



Walnut Grove Focused Traffic Study	*Figure 7.* *Bus Facilities*	PSOMAS October 2020

5.3. SIGHT DISTANCE

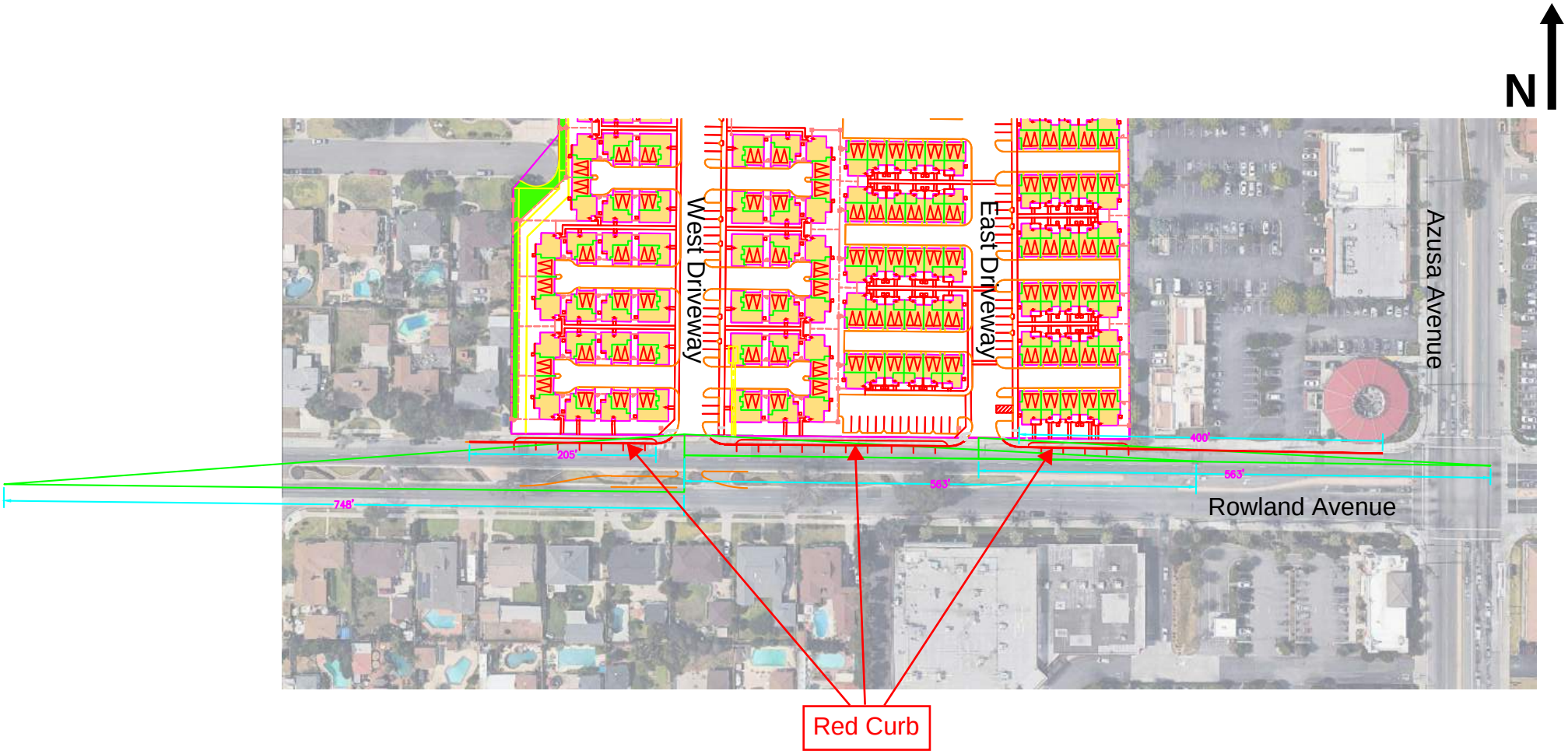
Per the scoping agreement, the sight distance for both driveways was evaluated using the requirements in the California *Highway Design Manual*[6]. For private road (site driveway) intersections, corner sight distance applies (Table 405.1A). Sight distance requirements are shown in Figure 405.7 of the manual. The corner sight distance is longer than the stopping sight distance (Table 201.1 of the manual) for Rowland Avenue, which has a posted speed of 40 mph. Figure 8 shows the sight visibility triangles for both driveways. As seen in the figure, the curb along the frontage of the project site will be painted red to prohibit parking in order to provide sufficient sight distance. Red curb is also shown beyond the sight visibility triangles where the curb is within eight feet of the triangle to account for the typical width of an on-street parking space.

5.4. TRASH/TRUCK ACCESS

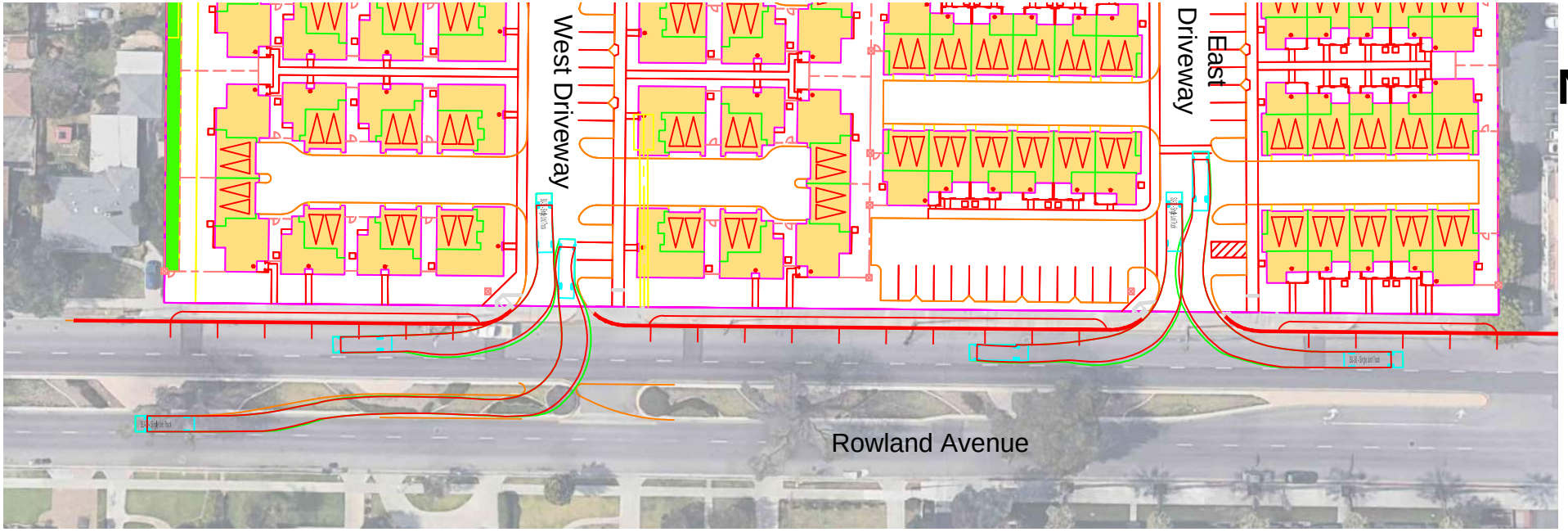
Trash pickup will occur in front of each residential unit separately, with trash bins stored inside the garage for each unit. To verify accessibility, the turning movements for a large single unit truck (SU-30) were evaluated throughout the site. The SU-30 is larger than a trash truck and would also account for delivery trucks on site. Figure 9 shows the turning movements into and out of the site, and Figure 10 shows turning movements within the site. Because the site is relatively symmetrical, the internal turning movements are only shown for the corner areas at the north of the site and for one of the drive aisles lined by units. As seen in Figure 10, trucks will have to back out of the drive aisles into the main circulation aisles, but all movements are possible based on the current design.

5.5. PARKING

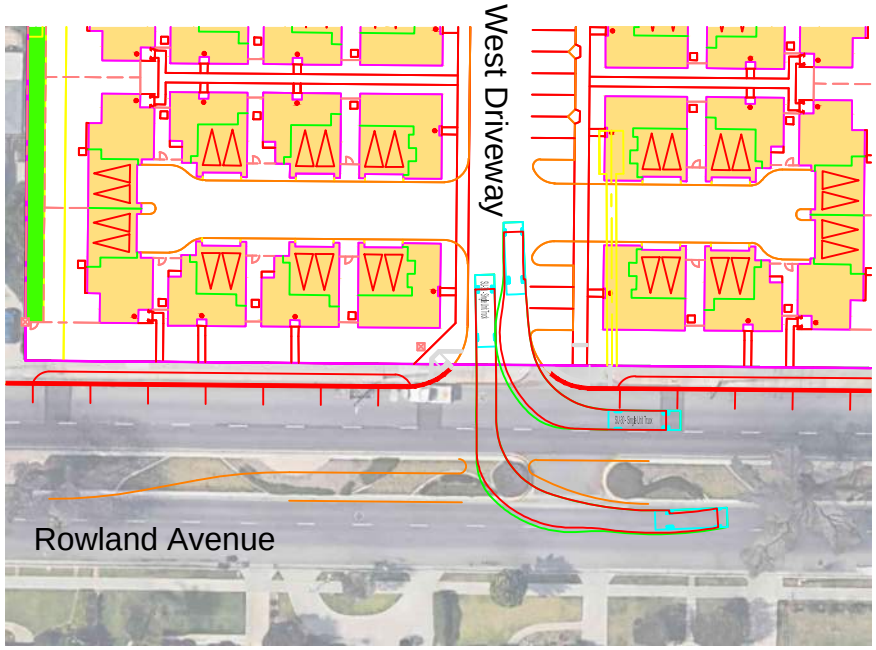
Because this project is a Specific Plan project, the parking requirements are specified separately from the typical City standards. Per the Specific Plan, the project is required to provide two parking spaces per unit and 0.5 guest parking spaces per unit (the City Code requires 0.25 guest spaces per unit). The Specific Plan conditions would result in a required 316 parking spaces for residents and 79 spaces for guests. As shown in the site plan, each unit will include a two-car garage, which meets the residential parking requirement. In addition, there are 99 guest parking spaces located throughout the site, which exceeds the required number of guest spaces.



Walnut Grove Focused Traffic Study	*Figure 8.* *Sight Visibility Triangles*	PSOMAS October 2020

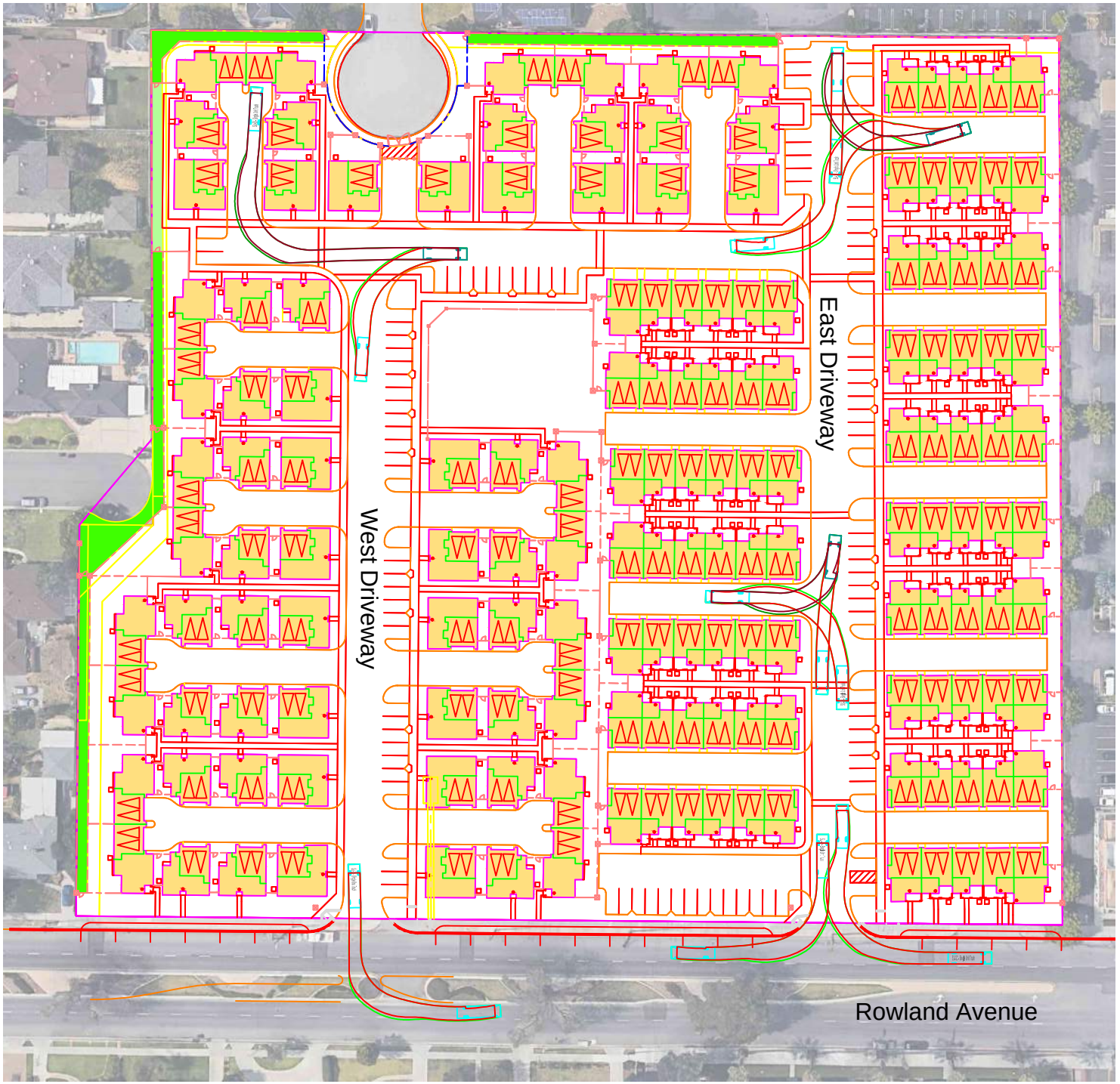


West Driveway - Left in, right out
East Driveway - Right in, right out



West Driveway - Left out, right in

Walnut Grove Focused Traffic Study	*Figure 9.* *Site Access Truck Movements - SU-30*	PSOMAS October 2020



Walnut Grove Focused Traffic Study	*Figure 10.* *On-Site Truck Movements - SU-30*	PSOMAS October 2020

6. SUMMARY

This focused traffic study provided an evaluation of the traffic and circulation conditions for the proposed Walnut Grove Specific Plan residential project. The project is expected to be exempt from VMT analysis because it is located in a Transit Priority Area. Further, due to the COVID-19 pandemic, traffic data collection is not feasible; therefore, Level of Service analysis was not required. However, this study provided information on the site access and circulation.

The Walnut Grove project is expected to include 66 detached units and 92 attached units for a total of 158 new residential townhome units. The project is located in a generally residential area and will be replacing a school campus which has been closed for some time. The site will have two access points onto Rowland Avenue including one full access driveway and one right-in right-out only driveway. The project is expected to generate 1,124 daily trips, including 106 trips in the peak hour.

The median on Rowland Avenue will be reconstructed to provide full access at the west driveway of the project, and all units will have access to both driveways. The sight visibility evaluation showed that much of the curb on the north side of Rowland Avenue along the project frontage will have to be painted red to prohibit parking and to provide sufficient site distance. The exact limits of the red curbing will be determined during final engineering for the site. The queues for vehicles entering and existing the site are expected to be minimal, and traffic projections for Rowland Avenue indicate that the roadway is operating far under its capacity.

Parking for residents will be within each unit, and 99 guest parking spaces will be provided. Truck turning movement evaluations showed that although trash (and potentially delivery) trucks will have to back out of the drive aisles into the main site circulation aisles, the trucks are expected to be able to maneuver throughout the site.

7. REFERENCES

[1] *City of West Covina Master Plan of Streets*. City of West Covina, http://www.westcovina.org/home/showdocument?id=426, accessed July 2020.

[2] *Engineering and Traffic Survey*. Willdan Engineering for the City of West Covina, October 2017.

[3] *Trip Generation, 10th Edition*. Institute of Transportation Engineers (ITE). Washington, D.C., 2017.

[4] Foothill Transit. http://foothilltransit.org/covid/, accessed July 29, 2020.

[5] *Highway Capacity Manual.* Transportation Research Board, 2016.

[6] *Highway Design Manual.* California Department of Transportation, 2020.

Appendix A – Scoping Agreement

Date: July 15, 2020

To:	Jo-Anne Burns, West Covina Planning Director Jburns@westcovina.org	Pages:	2 Pages
From:	Jana Robbins, PTP, RSP jana.robbins@transtech.org; T: 909-595-8599, 133	Job #:	TT 19862
Re:	Traffic Scoping for the Development of the Pioneer School Site for 158 Townhouse Units at 1650 E Rowland Avenue in the City of West Covina	Cc:	Michael Ackerman, City Engineer

TRAFFIC SCOPING

Recently, the City adopted in June the use of VMT Analysis Methodology for projects when evaluating Traffic Impacts for those projects that need to perform an EIR with CEQA analysis to be in line with State Mandates. CEQA Guidelines identified that all lead agencies must use VMT as the new transportation metric for identifying impacts for land use projects beginning July 1, 2020. While CEQA requirements have changed and LOS no longer constitutes CEQA impacts, the City elected to still use LOS for planning and analysis purposes. However, since the State is in COVID-19 conditions with low base traffic on the streets today which do not reflect what we are used to in traffic flow with schools and some business still closed any traffic analysis to be performed within the City of West Covina will be determined on a case by case basis to see if the development will be required to prepare a LOS based analysis.

If a project is determined by the City to be large enough to require a traffic analysis than the first step would be to determine if there is any existing count data available that can be utilized by proposed development to determine base traffic conditions. If no counts are available than at a minimum development projects will need to prepare a Focused Traffic Analysis.

For this specific project, the City has determined that the City does not have any available intersection count data. So an intersection Level of Service (LOS) analysis will not be required. However, a Focused Traffic Analysis will need to be Performed and include the following:

1. Determination of projects Trip generation using latest ITE Trip Generation Manual.
2. Figure showing the estimated project trips and directional Distribution from each driveway.
3. ADT on the Roadway adjacent to the project site (Rowland Avenue) using 2017 ADT data from the City of West Covina's Citywide Radar Speed Survey and adjusted using an ambient growth rate for 2020 or Opening Year Conditions– look at Opening Year and Opening Year + project only.
4. Access at each of the project driveways. Including any project queuing to get into proposed driveways.

5. Show the driveway locations in relation to existing striping on Rowland Avenue on the site plan. And identify how vehicles access will be affected by the raised median islands on Rowland? (right in right out?)
6. Access expected on Eileen Street. Will residents be allowed to access the complex through this street? Explain the on-street parking layout in the cul-de-sac with Eileen.
7. Line of Sight at each Access Point – any on-street requirements for red curb for clear sight triangle at project driveways.
8. Discussion on On-Site circulation.
9. Parking on-site (Required per code – versus what is provided) identification of where guests will park and potential for Off-site or On-street Parking for overflow.
10. Truck deliveries to include location of Trash and Truck Templates for Trash Trucks entering and exiting the site.

VMT Screening – It has been determined that this project is located within a Transit Priority Location (TPA) and is exempt from a full VMT analysis. Azusa Avenue is considered in a TPA area. There are three types of screening that may be applied to effectively screen projects from a detailed, project-level assessment. These screening steps are summarized below:

Transit Priority Area (TPA) Screening
Projects located within a TPA[1] may be presumed to have a less than significant impact absent substantial evidence to the contrary. Additionally, the analyst should confirm with all local transit providers that no recent changes in transit service have occurred in the project area (e.g. addition or removal of transit lines, addition or removal of transit stops, or changes to service frequency). The City of West Covina's TPA map is attached. A map or diagram should be included in the focused analysis showing the location of bus stops and the bus lines that frequent the TPA area providing justification for a project to be screened as located in a TPA area.

Low VMT Area Screening
Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per employee, or per service population that is similar to the existing land uses in the low VMT area.

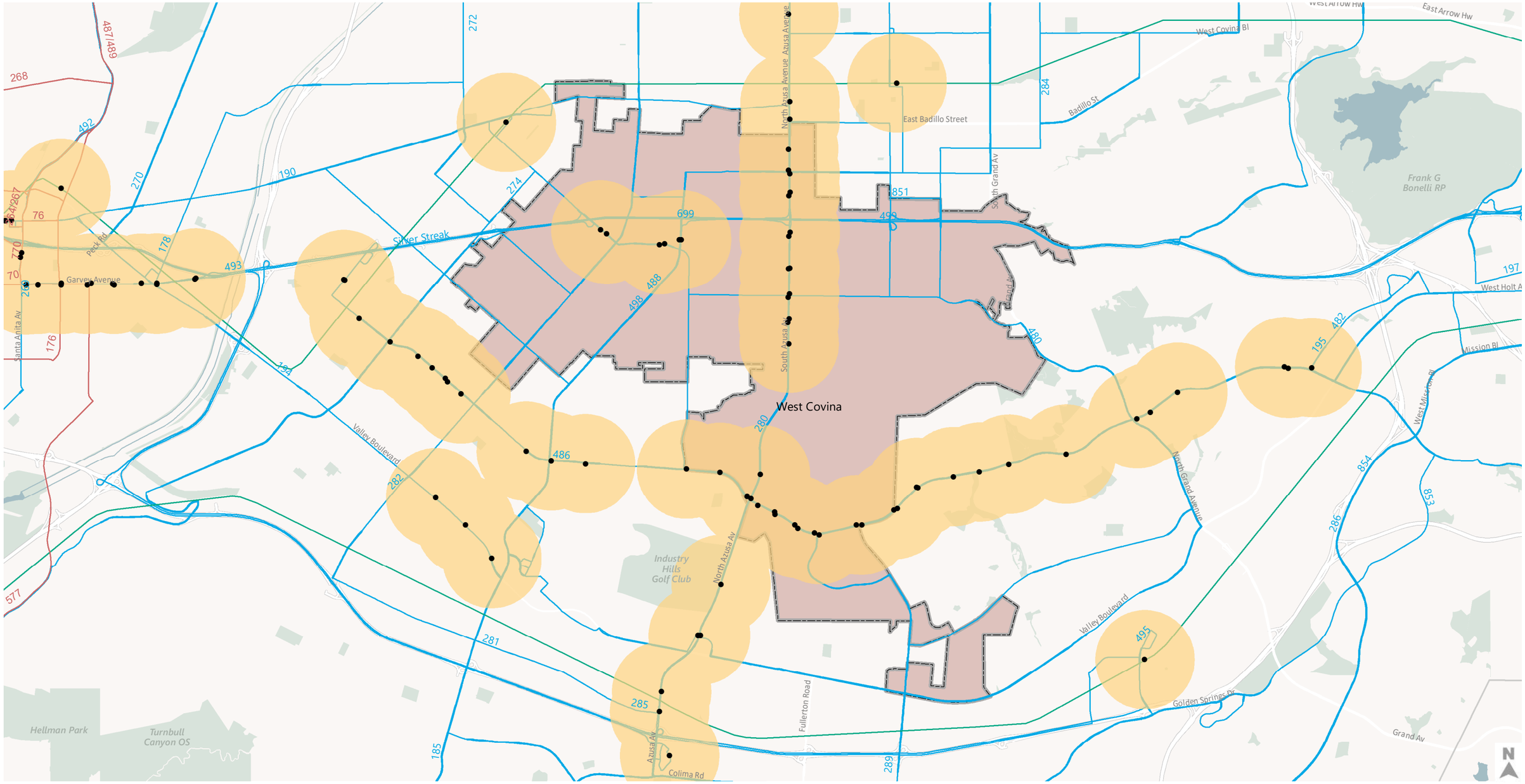
Project Type Screening
Some project types have been identified as having the presumption of a less than significant impact. The following uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature.

[1] A TPA is defined as a half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor per the definitions below. Public Resources Code § 21099(a)(7)

Pub. Resources Code, § 21064.3 - 'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Pub. Resources Code, § 21155 - For purposes of this section, a 'high-quality transit corridor' means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

Appendix B – Transit Priority Areas Map



- Transit Stop with Frequent Service
- Transit Priority Area
- LA Metro Bus (Simplified)
- LA Metro Rail
- Metrolink
- Foothill Transit
- City Boundary

SGVCOG SB 743:
Transit Priority Areas - West Covina

Appendix C – Synchro Reports

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	582	398	7	36	15
Future Vol, veh/h	8	582	398	7	36	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	633	433	8	39	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	441	0	-	0	772	221
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1115	-	-	-	336	783
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1115	-	-	-	333	783
Mov Cap-2 Maneuver	-	-	-	-	333	-
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1115	-	-	-	401
HCM Lane V/C Ratio	0.008	-	-	-	0.138
HCM Control Delay (s)	8.3	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	618	396	5	0	9
Future Vol, veh/h	0	618	396	5	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage,-#		0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	672	430	5	0	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	218
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	786
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	786
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	786
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	9.6
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	486	734	23	24	10
Future Vol, veh/h	26	486	734	23	24	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	528	798	25	26	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	823	0	-	0	1131	412
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	320	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	803	-	-	-	197	589
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	709	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	803	-	-	-	190	589
Mov Cap-2 Maneuver	-	-	-	-	190	-
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	23
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	803	-	-	-	237
HCM Lane V/C Ratio	0.035	-	-	-	0.156
HCM Control Delay (s)	9.6	-	-	-	23
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	510	751	16	0	6
Future Vol, veh/h	0	510	751	16	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage,-#		0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	554	816	17	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	417
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	585
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	585
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	585
HCM Lane V/C Ratio	-	-	-	0.011
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0


PSOMAS